RTI Laboratories, Inc.

Date: *25-Jan.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: 1112696

CASE NARRATIVE

Report Revised 01/25/2012: Analytical Comments for METHOD MA_APH, SAMPLE 1112696-031A, Batch ID R45213: Sample was initially analyzed at a higher dilution. Results indicated that a lower dilution would be more applicable. Initial report contained the results for the higher dilution. This report has been revised to reflect the results for the lower dilution.

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 12/21/2011. Samples were received in good condition. The sample set consisted of 39 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

Analytical Comments for METHOD EPA_TO15, SAMPLE 1112696-020A, Batch ID R45189: Sample contains high levels of non-target hydrocarbons. Contamination and internal standard failures occur at lower dilution. High dilution required for analysis - reporting limits elevated.

Analytical Comments for METHOD EPA_TO15, SAMPLE 1112696-012A, Batch ID R45189: Vent tip on bottle received loose/unscrewed causing leakage. Analytical Comments for METHOD MA_APH, SAMPLE 1112696-012A, Batch ID R45192: Vent tip on bottle received loose/unscrewed causing leakage

Analytical Comments for METHOD EPA_TO15, SAMPLE 1112696-015A, Batch ID R45539: Toluene result exceeded the upper calibration range on initial analysis. Re-analysis for this compound performed beyond the holding time.

QUALITY CONTROL:

Volatile Organic Compounds Analyses:

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

Surrogate recoveries were within established control limits.

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CASE NARRATIVE

Analytical Sequence ID 45190:

- Sample ID 1112398-010ADUP slightly elevated RPD for Benzene (27.5%).

Analytical Sequence ID 45391:

- Sample ID 1112696-018Adup elevated RPD for Acetone (200%).

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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

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

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

Date: 1/25/2012

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1112696

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV062

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

Samples Shipment Date: 15 DEC 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: UPS/2323121242

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

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

Special Instructions:

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

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

1. Relinquished By (Signature/Affiliation) Shaw E&I	Date: 12/15/11 Time: 1420	1. Received By (Signature/Affiliation) S Mee	Date: 12/21/11 Time: 10:02
2. Relinquished By (Signature/Affiliation)	Date: Time:	2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments:

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0687FQ	SVMW-01-050-GS-VA0687FQ-REG	13 DEC 2011	8:23	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		760
VA0687FQ	SVMW-01-050-GS-VA0687FQ-REG	13 DEC 2011	8:23	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0688FQ	SVMW-01-050-GS-VA0688FQ-FD	13 DEC 2011	8:23	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		838
VA0688FQ	SVMW-01-050-GS-VA0688FQ-FD	13 DEC 2011	8:23	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0689FQ	SVMW-01-100-GS-VA0689FQ-REG	13 DEC 2011	9:02	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		782
VA0689FQ	SVMW-01-100-GS-VA0689FQ-REG	13 DEC 2011	9:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0690FQ	SVMW-01-250-GS-VA0690FQ-REG	13 DEC 2011	9:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		841

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1112696

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV062

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					
VA0690FQ	SVMW-01-250-GS-VA0690FQ-REG	13 DEC 2011	9:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0691FQ	SVMW-01-300-GS-VA0691FQ-REG	13 DEC 2011	10:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		829
VA0691FQ	SVMW-01-300-GS-VA0691FQ-REG	13 DEC 2011	10:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0708	SVMW-06-050-GS-VA0708-REG	15 DEC 2011	9:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		BV 78
VA0708	SVMW-06-050-GS-VA0708-REG	15 DEC 2011	9:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0709	SVMW-06-100-GS-VA0709-REG	15 DEC 2011	10:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		602
VA0709	SVMW-06-100-GS-VA0709-REG	15 DEC 2011	10:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0710	SVMW-06-100-GS-VA0710-FD	15 DEC 2011	10:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		BV 45
VA0710	SVMW-06-100-GS-VA0710-FD	15 DEC 2011	10:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
MISSING → VA0711	SVMW-06-252-GS-VA0711-REG	15 DEC 2011	10:37	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0711	SVMW-06-252-GS-VA0711-REG	15 DEC 2011	10:37	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0712	SVMW-06-302-GS-VA0712-REG	15 DEC 2011	11:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		534
VA0712	SVMW-06-302-GS-VA0712-REG	15 DEC 2011	11:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0713	SVMW-07-050-GS-VA0713-REG	12 DEC 2011	8:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		770
VA0713	SVMW-07-050-GS-VA0713-REG	12 DEC 2011	8:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0714	SVMW-07-100-GS-VA0714-REG	12 DEC 2011	9:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		801
VA0714	SVMW-07-100-GS-VA0714-REG	12 DEC 2011	9:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0715	SVMW-07-150-GS-VA0715-REG	12 DEC 2011	9:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		839
VA0715	SVMW-07-150-GS-VA0715-REG	12 DEC 2011	9:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0738	SVMW-13-150-GS-VA0738-REG	14 DEC 2011	14:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		BV121
VA0738	SVMW-13-150-GS-VA0738-REG	14 DEC 2011	14:06	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0739	SVMW-13-250-GS-VA0739-REG	14 DEC 2011	14:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		~~BV121~~ 793
VA0739	SVMW-13-250-GS-VA0739-REG	14 DEC 2011	14:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0740	SVMW-13-250-GS-VA0740-FD	14 DEC 2011	14:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		797
VA0740	SVMW-13-250-GS-VA0740-FD	14 DEC 2011	14:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0741	SVMW-13-350-GS-VA0741-REG	14 DEC 2011	15:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		784
VA0741	SVMW-13-350-GS-VA0741-REG	14 DEC 2011	15:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

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1112696

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV062

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0742	SVMW-13-450-GS-VA0742-REG	14 DEC 2011	15:50	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		515
VA0742	SVMW-13-450-GS-VA0742-REG	14 DEC 2011	15:50	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0767	SVEW-11-410-GS-VA0767-REG	15 DEC 2011	8:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		818
VA0767	SVEW-11-410-GS-VA0767-REG	15 DEC 2011	8:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0896	KAFB-106126-450-GS-VA0896-REG	12 DEC 2011	11:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		752
VA0896	KAFB-106126-450-GS-VA0896-REG	12 DEC 2011	11:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0897	KAFB-106127-025-GS-VA0897-REG	13 DEC 2011	12:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0897	KAFB-106127-025-GS-VA0897-REG	13 DEC 2011	12:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0898	KAFB-106127-050-GS-VA0898-REG	13 DEC 2011	12:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		805
VA0898	KAFB-106127-050-GS-VA0898-REG	13 DEC 2011	12:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0899	KAFB-106127-050-GS-VA0899-FD	13 DEC 2011	12:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		780
VA0899	KAFB-106127-050-GS-VA0899-FD	13 DEC 2011	12:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0900	KAFB-106127-150-GS-VA0900-REG	13 DEC 2011	13:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		700
VA0900	KAFB-106127-150-GS-VA0900-REG	13 DEC 2011	13:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0901	KAFB-106127-250-GS-VA0901-REG	13 DEC 2011	14:23	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		BV 29
VA0901	KAFB-106127-250-GS-VA0901-REG	13 DEC 2011	14:23	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0902	KAFB-106127-350-GS-VA0902-REG	13 DEC 2011	15:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		27
VA0902	KAFB-106127-350-GS-VA0902-REG	13 DEC 2011	15:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0903	KAFB-106127-450-GS-VA0903-REG	13 DEC 2011	15:46	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		689
VA0903	KAFB-106127-450-GS-VA0903-REG	13 DEC 2011	15:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0972	KAFB-106138-250-GS-VA0972-REG	12 DEC 2011	13:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		798
VA0972	KAFB-106138-250-GS-VA0972-REG	12 DEC 2011	13:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0973	KAFB-106138-250-GS-VA0973-FD	12 DEC 2011	13:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		765
VA0973	KAFB-106138-250-GS-VA0973-FD	12 DEC 2011	13:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0974	KAFB-106138-350-GS-VA0974-REG	12 DEC 2011	14:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		716
VA0974	KAFB-106138-350-GS-VA0974-REG	12 DEC 2011	14:43	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0975	KAFB-106138-450-GS-VA0975-REG	12 DEC 2011	15:32	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0975	KAFB-106138-450-GS-VA0975-REG	12 DEC 2011	15:32	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		809

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Shaw E & I, Inc.

1112696

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV062

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0995	KAFB-106142-030-GS-VA0995-REG	14 DEC 2011	9:14	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		565
VA0995	KAFB-106142-030-GS-VA0995-REG	14 DEC 2011	9:14	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		563
VA0996	KAFB-106142-050-GS-VA0996-REG	14 DEC 2011	9:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0996	KAFB-106142-050-GS-VA0996-REG	14 DEC 2011	9:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		552
VA0997	KAFB-106142-170-GS-VA0997-REG	14 DEC 2011	10:25	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0997	KAFB-106142-170-GS-VA0997-REG	14 DEC 2011	10:25	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		530
VA0998	KAFB-106142-250-GS-VA0998-REG	14 DEC 2011	11:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0998	KAFB-106142-250-GS-VA0998-REG	14 DEC 2011	11:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		681
VA0999	KAFB-106142-350-GS-VA0999-REG	14 DEC 2011	11:44	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0999	KAFB-106142-350-GS-VA0999-REG	14 DEC 2011	11:44	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		531
VA1000	KAFB-106142-350-GS-VA1000-FD	14 DEC 2011	11:44	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1000	KAFB-106142-350-GS-VA1000-FD	14 DEC 2011	11:44	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		556
VA1001	KAFB-106142-450-GS-VA1001-REG	14 DEC 2011	12:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA1001	KAFB-106142-450-GS-VA1001-REG	14 DEC 2011	12:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		730
VA8062-TB	FIELDQC-GS-VA8062-TB-TB	12 DEC 2011	8:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15					

DATE 12/16/11
SIGNATURE

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

MI 482 9-02

UPS GROUND
TRACKING #: 1Z 103 35E 03 4058 5758

T - 10
UPST 341891

Door: 1215
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0341821740

BAY101E 0971013 Dec 20 00:18:22 2011 US

SS2042 HIP 11.1.3 BTLP2844L

6059 M

CUSTODY SEAL
DATE 12/15/11
SIGNATURE

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

T - 10 Door : 1215
UPST 341891 MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0340113570

P29D131 1428682 Dec 19 23:43:36 2011 US

SS2031 HIP 11.1.3 BTLP2844L

6059 N

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received: **12/21/2011 10:02:00 AM**

Work Order Number **1112696** RcptNo: **1**

Received by: **Stephanie Mercieca**

Completed by:

Reviewed by:

Completed Date: 12/21/2011 2:22:33 PM

Reviewed Date:

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 below.

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112696-001A	Container-01 of 01	Bottle				
1112696-001B	Container-01 of 01	Bottle				
1112696-002A	Container-01 of 01	Bottle				
1112696-002B	Container-01 of 01	Bottle				
1112696-003A	Container-01 of 01	Bottle				
1112696-003B	Container-01 of 01	Bottle				
1112696-004A	Container-01 of 01	Bottle				
1112696-004B	Container-01 of 01	Bottle				
1112696-005A	Container-01 of 01	Bottle				
1112696-005B	Container-01 of 01	Bottle				
1112696-006A	Container-01 of 01	Bottle				
1112696-006B	Container-01 of 01	Bottle				
1112696-007A	Container-01 of 01	Bottle				
1112696-007B	Container-01 of 01	Bottle				
1112696-008A	Container-01 of 01	Bottle				
1112696-008B	Container-01 of 01	Bottle				
1112696-009B	Container-01 of 01	Bottle				
1112696-010A	Container-01 of 01	Bottle				
1112696-010B	Container-01 of 01	Bottle				
1112696-011A	Container-01 of 01	Bottle				
1112696-011B	Container-01 of 01	Bottle				
1112696-012A	Container-01 of 01	Bottle				
1112696-012B	Container-01 of 01	Bottle				
1112696-013A	Container-01 of 01	Bottle				
1112696-013B	Container-01 of 01	Bottle				
1112696-014A	Container-01 of 01	Bottle				
1112696-014B	Container-01 of 01	Bottle				
1112696-015A	Container-01 of 01	Bottle				
1112696-015B	Container-01 of 01	Bottle				
1112696-016A	Container-01 of 01	Bottle				
1112696-016B	Container-01 of 01	Bottle				
1112696-017A	Container-01 of 01	Bottle				
1112696-017B	Container-01 of 01	Bottle				
1112696-018A	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112696-018B	Container-01 of 01	Bottle				
1112696-019A	Container-01 of 01	Bottle				
1112696-019B	Container-01 of 01	Bottle				
1112696-020A	Container-01 of 01	Bottle				
1112696-020B	Container-01 of 01	Bottle				
1112696-021A	Container-01 of 01	Bottle				
1112696-022A	Container-01 of 01	Bottle				
1112696-022B	Container-01 of 01	Bottle				
1112696-023A	Container-01 of 01	Bottle				
1112696-023B	Container-01 of 01	Bottle				
1112696-024A	Container-01 of 01	Bottle				
1112696-024B	Container-01 of 01	Bottle				
1112696-025A	Container-01 of 01	Bottle				
1112696-025B	Container-01 of 01	Bottle				
1112696-026A	Container-01 of 01	Bottle				
1112696-026B	Container-01 of 01	Bottle				
1112696-027A	Container-01 of 01	Bottle				
1112696-027B	Container-01 of 01	Bottle				
1112696-028A	Container-01 of 01	Bottle				
1112696-028B	Container-01 of 01	Bottle				
1112696-029A	Container-01 of 01	Bottle				
1112696-029B	Container-01 of 01	Bottle				
1112696-030A	Container-01 of 01	Bottle				
1112696-030B	Container-01 of 01	Bottle				
1112696-031A	Container-01 of 01	Bottle				
1112696-031B	Container-01 of 01	Bottle				
1112696-032A	Container-01 of 01	Bottle				
1112696-032B	Container-01 of 01	Bottle				
1112696-033A	Container-01 of 01	Bottle				
1112696-033B	Container-01 of 01	Bottle				
1112696-034A	Container-01 of 01	Bottle				
1112696-034B	Container-01 of 01	Bottle				
1112696-035A	Container-01 of 01	Bottle				
1112696-035B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1112696-036A	Container-01 of 01	Bottle				
1112696-036B	Container-01 of 01	Bottle				
1112696-037A	Container-01 of 01	Bottle				
1112696-037B	Container-01 of 01	Bottle				
1112696-038A	Container-01 of 01	Bottle				
1112696-038B	Container-01 of 01	Bottle				
1112696-039A	Container-01 of 01	Bottle				

Adjusted? _____ Checked by _____

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

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

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

Client Instructions:

Date Contacted: 12/21/2011 Contacted By: Stephanie Mercieca

Regarding: Missing (2) Bottle Vacs

CorrectiveAction:

Comments: Tracking #: UPS 1Z10335E0340585758, UPS 1Z10335E0341821740, UPS 1Z10335E0340113570

RTI Laboratories - Workorder Sample Summary

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1112696-001	VA0687FQ		12/13/2011 8:23 AM	12/21/2011 10:02 AM	Air
1112696-001	VA0687FQ		12/13/2011 8:23 AM	12/21/2011 10:02 AM	Air
1112696-002	VA0688FQ		12/13/2011 8:23 AM	12/21/2011 10:02 AM	Air
1112696-002	VA0688FQ		12/13/2011 8:23 AM	12/21/2011 10:02 AM	Air
1112696-003	VA0689FQ		12/13/2011 9:02 AM	12/21/2011 10:02 AM	Air
1112696-003	VA0689FQ		12/13/2011 9:02 AM	12/21/2011 10:02 AM	Air
1112696-004	VA0690FQ		12/13/2011 9:32 AM	12/21/2011 10:02 AM	Air
1112696-004	VA0690FQ		12/13/2011 9:32 AM	12/21/2011 10:02 AM	Air
1112696-005	VA0691FQ		12/13/2011 10:04 AM	12/21/2011 10:02 AM	Air
1112696-005	VA0691FQ		12/13/2011 10:04 AM	12/21/2011 10:02 AM	Air
1112696-006	VA0708		12/15/2011 9:38 AM	12/21/2011 10:02 AM	Air
1112696-006	VA0708		12/15/2011 9:38 AM	12/21/2011 10:02 AM	Air
1112696-007	VA0709		12/15/2011 10:04 AM	12/21/2011 10:02 AM	Air
1112696-007	VA0709		12/15/2011 10:04 AM	12/21/2011 10:02 AM	Air
1112696-008	VA0710		12/15/2011 10:04 AM	12/21/2011 10:02 AM	Air
1112696-008	VA0710		12/15/2011 10:04 AM	12/21/2011 10:02 AM	Air
1112696-009	VA0711		12/15/2011 10:37 AM	12/21/2011 10:02 AM	Air
1112696-010	VA0712		12/15/2011 11:20 AM	12/21/2011 10:02 AM	Air
1112696-010	VA0712		12/15/2011 11:20 AM	12/21/2011 10:02 AM	Air
1112696-011	VA0713		12/12/2011 8:49 AM	12/21/2011 10:02 AM	Air
1112696-011	VA0713		12/12/2011 8:49 AM	12/21/2011 10:02 AM	Air
1112696-012	VA0714		12/12/2011 9:16 AM	12/21/2011 10:02 AM	Air
1112696-012	VA0714		12/12/2011 9:16 AM	12/21/2011 10:02 AM	Air
1112696-013	VA0715		12/12/2011 9:39 AM	12/21/2011 10:02 AM	Air
1112696-013	VA0715		12/12/2011 9:39 AM	12/21/2011 10:02 AM	Air
1112696-014	VA0738		12/14/2011 2:06 PM	12/21/2011 10:02 AM	Air
1112696-014	VA0738		12/14/2011 2:06 PM	12/21/2011 10:02 AM	Air
1112696-015	VA0739		12/14/2011 2:38 PM	12/21/2011 10:02 AM	Air
1112696-015	VA0739		12/14/2011 2:38 PM	12/21/2011 10:02 AM	Air
1112696-016	VA0740		12/14/2011 2:38 PM	12/21/2011 10:02 AM	Air
1112696-016	VA0740		12/14/2011 2:38 PM	12/21/2011 10:02 AM	Air
1112696-017	VA0741		12/14/2011 3:26 PM	12/21/2011 10:02 AM	Air
1112696-017	VA0741		12/14/2011 3:26 PM	12/21/2011 10:02 AM	Air
1112696-018	VA0742		12/14/2011 3:50 PM	12/21/2011 10:02 AM	Air
1112696-018	VA0742		12/14/2011 3:50 PM	12/21/2011 10:02 AM	Air
1112696-019	VA0767		12/15/2011 8:41 AM	12/21/2011 10:02 AM	Air
1112696-019	VA0767		12/15/2011 8:41 AM	12/21/2011 10:02 AM	Air
1112696-020	VA0896		12/12/2011 11:20 AM	12/21/2011 10:02 AM	Air
1112696-020	VA0896		12/12/2011 11:20 AM	12/21/2011 10:02 AM	Air
1112696-021	VA0897		12/13/2011 12:22 PM	12/21/2011 10:02 AM	Air
1112696-022	VA0898		12/13/2011 12:53 PM	12/21/2011 10:02 AM	Air
1112696-022	VA0898		12/13/2011 12:53 PM	12/21/2011 10:02 AM	Air
1112696-023	VA0899		12/13/2011 12:53 PM	12/21/2011 10:02 AM	Air
1112696-023	VA0899		12/13/2011 12:53 PM	12/21/2011 10:02 AM	Air
1112696-024	VA0900		12/13/2011 1:40 PM	12/21/2011 10:02 AM	Air

RTI Laboratories - Workorder Sample Summary

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Lab Sample ID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1112696-024	VA0900		12/13/2011 1:40 PM	12/21/2011 10:02 AM	Air
1112696-025	VA0901		12/13/2011 2:23 PM	12/21/2011 10:02 AM	Air
1112696-025	VA0901		12/13/2011 2:23 PM	12/21/2011 10:02 AM	Air
1112696-026	VA0902		12/13/2011 3:04 PM	12/21/2011 10:02 AM	Air
1112696-026	VA0902		12/13/2011 3:04 PM	12/21/2011 10:02 AM	Air
1112696-027	VA0903		12/13/2011 3:46 PM	12/21/2011 10:02 AM	Air
1112696-027	VA0903		12/13/2011 3:46 PM	12/21/2011 10:02 AM	Air
1112696-028	VA0972		12/12/2011 1:48 PM	12/21/2011 10:02 AM	Air
1112696-028	VA0972		12/12/2011 1:48 PM	12/21/2011 10:02 AM	Air
1112696-029	VA0973		12/12/2011 1:48 PM	12/21/2011 10:02 AM	Air
1112696-029	VA0973		12/12/2011 1:48 PM	12/21/2011 10:02 AM	Air
1112696-030	VA0974		12/12/2011 2:43 PM	12/21/2011 10:02 AM	Air
1112696-030	VA0974		12/12/2011 2:43 PM	12/21/2011 10:02 AM	Air
1112696-031	VA0975		12/12/2011 3:32 PM	12/21/2011 10:02 AM	Air
1112696-031	VA0975		12/12/2011 3:32 PM	12/21/2011 10:02 AM	Air
1112696-032	VA0995		12/14/2011 9:14 AM	12/21/2011 10:02 AM	Air
1112696-032	VA0995		12/14/2011 9:14 AM	12/21/2011 10:02 AM	Air
1112696-033	VA0996		12/14/2011 9:49 AM	12/21/2011 10:02 AM	Air
1112696-033	VA0996		12/14/2011 9:49 AM	12/21/2011 10:02 AM	Air
1112696-034	VA0997		12/14/2011 10:25 AM	12/21/2011 10:02 AM	Air
1112696-034	VA0997		12/14/2011 10:25 AM	12/21/2011 10:02 AM	Air
1112696-035	VA0998		12/14/2011 11:03 AM	12/21/2011 10:02 AM	Air
1112696-035	VA0998		12/14/2011 11:03 AM	12/21/2011 10:02 AM	Air
1112696-036	VA0999		12/14/2011 11:44 AM	12/21/2011 10:02 AM	Air
1112696-036	VA0999		12/14/2011 11:44 AM	12/21/2011 10:02 AM	Air
1112696-037	VA1000		12/14/2011 11:44 AM	12/21/2011 10:02 AM	Air
1112696-037	VA1000		12/14/2011 11:44 AM	12/21/2011 10:02 AM	Air
1112696-038	VA1001		12/14/2011 12:42 PM	12/21/2011 10:02 AM	Air
1112696-038	VA1001		12/14/2011 12:42 PM	12/21/2011 10:02 AM	Air
1112696-039	VA8062-TB		12/12/2011 8:00 AM	12/21/2011 10:02 AM	Air

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-001A	VA0687FQ	12/13/2011 8:23 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 5:08 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2012 12:51 AM
1112696-001B	VA0687FQ	12/13/2011 8:23 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 10:24 AM
1112696-002A	VA0688FQ	12/13/2011 8:23 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 2:59 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 4:55 AM
1112696-002B	VA0688FQ	12/13/2011 8:23 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 10:40 AM
1112696-003A	VA0689FQ	12/13/2011 9:02 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/23/2011 2:05 AM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 5:40 AM
1112696-003B	VA0689FQ	12/13/2011 9:02 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 10:55 AM
1112696-004A	VA0690FQ	12/13/2011 9:32 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/28/2011 2:13 AM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 7:18 AM
1112696-004B	VA0690FQ	12/13/2011 9:32 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 11:10 AM
1112696-005A	VA0691FQ	12/13/2011 10:04 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/23/2011 3:31 AM
				EPA_TO15-Volatile Organic Compounds			1/6/2012 1:41 AM
1112696-005B	VA0691FQ	12/13/2011 10:04 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 11:26 AM
1112696-006A	VA0708	12/15/2011 9:38 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 1:46 AM
				EPA_TO15-Volatile Organic Compounds			1/11/2012 7:51 AM

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-006B	VA0708	12/15/2011 9:38 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 11:41 AM
1112696-007A	VA0709	12/15/2011 10:04 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 2:29 AM
				EPA_TO15-Volatile Organic Compounds			1/11/2012 8:36 AM
1112696-007B	VA0709	12/15/2011 10:04 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 11:56 AM
1112696-008A	VA0710	12/15/2011 10:04 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 9:00 PM
				EPA_TO15-Volatile Organic Compounds			1/11/2012 3:55 PM
1112696-008B	VA0710	12/15/2011 10:04 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 12:11 PM
1112696-009B	VA0711	12/15/2011 10:37 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 12:26 PM
1112696-010A	VA0712	12/15/2011 11:20 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 10:50 PM
				EPA_TO15-Volatile Organic Compounds			1/12/2012 1:33 PM
1112696-010B	VA0712	12/15/2011 11:20 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 12:41 PM
1112696-011A	VA0713	12/12/2011 8:49 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 5:36 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 12:41 PM
1112696-011B	VA0713	12/12/2011 8:49 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 1:26 PM
1112696-012A	VA0714	12/12/2011 9:16 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 2:50 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 1:29 PM

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-012B	VA0714	12/12/2011 9:16 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 1:40 PM
1112696-013A	VA0715	12/12/2011 9:39 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 3:33 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 8:56 PM
1112696-013B	VA0715	12/12/2011 9:39 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 1:55 PM
1112696-014A	VA0738	12/14/2011 2:06 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/29/2011 2:48 AM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 4:53 PM
1112696-014B	VA0738	12/14/2011 2:06 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 2:10 PM
1112696-015A	VA0739	12/14/2011 2:38 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 11:37 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 5:39 PM
				EPA_TO15-Volatile Organic Compounds			1/17/2012 4:26 PM
1112696-015B	VA0739	12/14/2011 2:38 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 2:25 PM
1112696-016A	VA0740	12/14/2011 2:38 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 5:00 PM
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 12:20 AM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 6:25 PM
1112696-016B	VA0740	12/14/2011 2:38 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 2:42 PM
1112696-017A	VA0741	12/14/2011 3:26 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 1:03 AM
				EPA_TO15-Volatile Organic Compounds			1/10/2012 10:49 PM

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-017B	VA0741	12/14/2011 3:26 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 2:57 PM
1112696-018A	VA0742	12/14/2011 3:50 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 7:11 PM
				EPA_TO15-Volatile Organic Compounds			1/10/2012 11:34 PM
1112696-018B	VA0742	12/14/2011 3:50 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 3:14 PM
1112696-019A	VA0767	12/15/2011 8:41 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/2/2012 7:55 PM
				EPA_TO15-Volatile Organic Compounds			1/11/2012 7:06 AM
1112696-019B	VA0767	12/15/2011 8:41 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/5/2012 3:29 PM
1112696-020A	VA0896	12/12/2011 11:20 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 8:36 PM
				EPA_TO15-Volatile Organic Compounds			12/31/2011 2:18 PM
1112696-020B	VA0896	12/12/2011 11:20 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 12:44 PM
1112696-021A	VA0897	12/13/2011 12:22 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 12:59 PM
1112696-022A	VA0898	12/13/2011 12:53 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 6:34 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 8:49 AM
1112696-022B	VA0898	12/13/2011 12:53 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 1:14 PM
1112696-023A	VA0899	12/13/2011 12:53 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 7:18 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 9:34 AM

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-023B	VA0899	12/13/2011 12:53 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 1:29 PM
1112696-024A	VA0900	12/13/2011 1:40 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 4:23 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2012 2:28 AM
1112696-024B	VA0900	12/13/2011 1:40 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 1:44 PM
1112696-025A	VA0901	12/13/2011 2:23 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 3:43 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 7:11 PM
1112696-025B	VA0901	12/13/2011 2:23 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 1:59 PM
1112696-026A	VA0902	12/13/2011 3:04 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/28/2011 7:41 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 8:11 PM
1112696-026B	VA0902	12/13/2011 3:04 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 2:14 PM
1112696-027A	VA0903	12/13/2011 3:46 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/28/2011 9:06 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 2:07 PM
1112696-027B	VA0903	12/13/2011 3:46 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 2:29 PM
1112696-028A	VA0972	12/12/2011 1:48 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/22/2011 9:50 PM
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 12:39 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 9:43 PM
1112696-028B	VA0972	12/12/2011 1:48 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 2:44 PM

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-029A	VA0973	12/12/2011 1:48 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 2:09 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 10:30 PM
1112696-029B	VA0973	12/12/2011 1:48 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/6/2012 2:59 PM
1112696-030A	VA0974	12/12/2011 2:43 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 2:54 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 11:17 PM
1112696-030B	VA0974	12/12/2011 2:43 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 2:37 PM
1112696-031A	VA0975	12/12/2011 3:32 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			12/27/2011 6:19 PM
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/3/2012 3:39 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2012 12:04 AM
1112696-031B	VA0975	12/12/2011 3:32 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 3:03 PM
1112696-032A	VA0995	12/14/2011 9:14 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 4:27 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 2:53 PM
1112696-032B	VA0995	12/14/2011 9:14 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 3:20 PM
1112696-033A	VA0996	12/14/2011 9:49 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 5:21 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 3:38 PM
1112696-033B	VA0996	12/14/2011 9:49 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 3:40 PM
1112696-034A	VA0997	12/14/2011 10:25 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 6:06 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 4:23 PM

RTI Laboratories - DATES REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1112696-034B	VA0997	12/14/2011 10:25 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 3:59 PM
1112696-035A	VA0998	12/14/2011 11:03 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 6:49 PM
				EPA_TO15-Volatile Organic Compounds			1/3/2012 5:09 PM
1112696-035B	VA0998	12/14/2011 11:03 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 4:16 PM
1112696-036A	VA0999	12/14/2011 11:44 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 7:33 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2012 3:15 AM
1112696-036B	VA0999	12/14/2011 11:44 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 4:38 PM
1112696-037A	VA1000	12/14/2011 11:44 AM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/4/2012 8:17 PM
				EPA_TO15-Volatile Organic Compounds			1/6/2012 4:02 AM
1112696-037B	VA1000	12/14/2011 11:44 AM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 4:55 PM
1112696-038A	VA1001	12/14/2011 12:42 PM	Air				
				MA_APH-Air-Phase Petroleum Hydrocarbons			1/5/2012 1:07 PM
				EPA_TO15-Volatile Organic Compounds			1/5/2012 3:22 PM
				EPA_TO15-Volatile Organic Compounds			1/10/2012 10:04 PM
1112696-038B	VA1001	12/14/2011 12:42 PM	Air				
				ASTM-D2504-Noncondensable Gases and Light Hydrocarbons			1/9/2012 5:11 PM
1112696-039A	VA8062-TB	12/12/2011 8:00 AM	Air				
				EPA_TO15-Volatile Organic Compounds			12/31/2011 11:49 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 8:23:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-001	**Matrix:**	Air
Client Sample ID:	VA0687FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.0	0.10		%	1	1/5/2012 10:24 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 10:24 AM
Methane	ND	0.50	U	%	1	1/5/2012 10:24 AM
Nitrogen	80	0.10		%	1	1/5/2012 10:24 AM
Oxygen	14	0.10		%	1	1/5/2012 10:24 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,1,2,2-Tetrachloroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,1,2-Trichloroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,1-Dichloroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,1-Dichloroethene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,2,4-Trichlorobenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,2,4-Trimethylbenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,2-Dibromoethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,2-Dichlorobenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,2-Dichloroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,2-Dichloropropane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,3,5-Trimethylbenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,3-Butadiene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,3-Dichlorobenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
1,4-Dichlorobenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
2-Butanone	ND	16	U	ppbv	16	1/6/2012 12:51 AM
2-Hexanone	ND	16	U	ppbv	16	1/6/2012 12:51 AM
4-Methyl-2-pentanone	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Acetone	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Benzene	22	16		ppbv	16	1/6/2012 12:51 AM
Benzyl chloride	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Bromodichloromethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Bromoform	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Bromomethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Carbon disulfide	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Carbon tetrachloride	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Chlorobenzene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Chlorodibromomethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Chloroethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Chloroform	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Chloromethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
cis-1,2-Dichloroethene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
cis-1,3-dichloropropene	ND	16	U	ppbv	16	1/6/2012 12:51 AM

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 8:23:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-001	**Matrix:**	Air
Client Sample ID:	VA0687FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	25	32	J	ppbv	16	1/6/2012 12:51 AM
Dichlorodifluoromethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Ethyl acetate	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Ethylbenzene	ND	32	U	ppbv	16	1/6/2012 12:51 AM
Heptane	32	16		ppbv	16	1/6/2012 12:51 AM
Hexachlorobutadiene	ND	32	U	ppbv	16	1/6/2012 12:51 AM
m,p-Xylene	57	32		ppbv	16	1/6/2012 12:51 AM
Methylene chloride	ND	80	U	ppbv	16	1/6/2012 12:51 AM
n-Hexane	ND	32	U	ppbv	16	1/6/2012 12:51 AM
Naphthalene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
o-Xylene	17	16		ppbv	16	1/6/2012 12:51 AM
Propylene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Styrene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
tert-Butyl Methyl Ether	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Tetrachloroethene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Tetrahydrofuran	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Toluene	150	16		ppbv	16	1/6/2012 12:51 AM
trans-1,2-Dichloroethene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
trans-1,3-dichloropropene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Trichloroethene	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Trichlorofluoromethane	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Vinyl acetate	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Vinyl chloride	ND	16	U	ppbv	16	1/6/2012 12:51 AM
Xylenes, Total	74	48		ppbv	16	1/6/2012 12:51 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	16	1/6/2012 12:51 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,100	940		µg/m³	8	1/3/2012 5:08 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/3/2012 5:08 PM
C9-C12 Aliphatic Hydrocarbons	1,000	1,500	J	µg/m³	8	1/3/2012 5:08 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	8	1/3/2012 5:08 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 8:23:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-002	**Matrix:**	Air
Client Sample ID:	VA0688FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.3	0.10		%	1	1/5/2012 10:40 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 10:40 AM
Methane	ND	0.50	U	%	1	1/5/2012 10:40 AM
Nitrogen	81	0.10		%	1	1/5/2012 10:40 AM
Oxygen	13	0.10		%	1	1/5/2012 10:40 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 4:55 AM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 4:55 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Acetone	160	40		ppbv	40	1/3/2012 4:55 AM
Benzene	52	40		ppbv	40	1/3/2012 4:55 AM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Bromoform	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Chloroform	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 4:55 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 8:23:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-002	**Matrix:**	Air
Client Sample ID:	VA0688FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	47	80	J	ppbv	40	1/3/2012 4:55 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 4:55 AM
Heptane	50	40		ppbv	40	1/3/2012 4:55 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 4:55 AM
m,p-Xylene	96	80		ppbv	40	1/3/2012 4:55 AM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 4:55 AM
n-Hexane	ND	80	U	ppbv	40	1/3/2012 4:55 AM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
o-Xylene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Propylene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Styrene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Toluene	280	40		ppbv	40	1/3/2012 4:55 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 4:55 AM
Xylenes, Total	96	120	J	ppbv	40	1/3/2012 4:55 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	1/3/2012 4:55 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,600	940		µg/m³	8	1/4/2012 2:59 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 2:59 PM
C9-C12 Aliphatic Hydrocarbons	1,000	1,500	J	µg/m³	8	1/4/2012 2:59 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	8	1/4/2012 2:59 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 9:02:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-003	**Matrix:**	Air
Client Sample ID:	VA0689FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	6.4	0.10		%	1	1/5/2012 10:55 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 10:55 AM
Methane	ND	0.50	U	%	1	1/5/2012 10:55 AM
Nitrogen	82	0.10		%	1	1/5/2012 10:55 AM
Oxygen	9.9	0.10		%	1	1/5/2012 10:55 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
2-Butanone	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Acetone	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Benzene	45,000	8,000		ppbv	8000	1/3/2012 5:40 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Bromoform	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Bromomethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Chloroethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Chloroform	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Chloromethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 9:02:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-003	**Matrix:**	Air
Client Sample ID:	VA0689FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	350,000	16,000		ppbv	8000	1/3/2012 5:40 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/3/2012 5:40 AM
Heptane	150,000	8,000		ppbv	8000	1/3/2012 5:40 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/3/2012 5:40 AM
m,p-Xylene	11,000	16,000	J	ppbv	8000	1/3/2012 5:40 AM
Methylene chloride	ND	40,000	U	ppbv	8000	1/3/2012 5:40 AM
n-Hexane	400,000	16,000		ppbv	8000	1/3/2012 5:40 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
o-Xylene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Propylene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Styrene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Toluene	37,000	8,000		ppbv	8000	1/3/2012 5:40 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Trichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/3/2012 5:40 AM
Xylenes, Total	11,000	24,000	J	ppbv	8000	1/3/2012 5:40 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	8000	1/3/2012 5:40 AM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	12,000,000	940,000		µg/m³	8000	12/23/2011 2:05 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/23/2011 2:05 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/23/2011 2:05 AM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	8000	12/23/2011 2:05 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 9:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-004	**Matrix:**	Air
Client Sample ID:	VA0690FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.64	0.10		%	1	1/5/2012 11:10 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 11:10 AM
Methane	ND	0.50	U	%	1	1/5/2012 11:10 AM
Nitrogen	78	0.10		%	1	1/5/2012 11:10 AM
Oxygen	20	0.10		%	1	1/5/2012 11:10 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,3-Butadiene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
2-Butanone	ND	400	U	ppbv	400	1/3/2012 7:18 AM
2-Hexanone	ND	400	U	ppbv	400	1/3/2012 7:18 AM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Acetone	440	400		ppbv	400	1/3/2012 7:18 AM
Benzene	970	400		ppbv	400	1/3/2012 7:18 AM
Benzyl chloride	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Bromodichloromethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Bromoform	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Bromomethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Carbon disulfide	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Carbon tetrachloride	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Chlorobenzene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Chlorodibromomethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Chloroethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Chloroform	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Chloromethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/3/2012 7:18 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 9:32:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-004	**Matrix:**	Air
Client Sample ID:	VA0690FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	800		ppbv	400	1/3/2012 7:18 AM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Ethyl acetate	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Ethylbenzene	ND	800	U	ppbv	400	1/3/2012 7:18 AM
Heptane	1,500	400		ppbv	400	1/3/2012 7:18 AM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/3/2012 7:18 AM
m,p-Xylene	880	800		ppbv	400	1/3/2012 7:18 AM
Methylene chloride	ND	2,000	U	ppbv	400	1/3/2012 7:18 AM
n-Hexane	1,500	800		ppbv	400	1/3/2012 7:18 AM
Naphthalene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
o-Xylene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Propylene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Styrene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Tetrachloroethene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Tetrahydrofuran	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Toluene	1,600	400		ppbv	400	1/3/2012 7:18 AM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Trichloroethene	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Vinyl acetate	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Vinyl chloride	ND	400	U	ppbv	400	1/3/2012 7:18 AM
Xylenes, Total	880	1,200	J	ppbv	400	1/3/2012 7:18 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	1/3/2012 7:18 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	12/28/2011 2:13 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/28/2011 2:13 AM
C9-C12 Aliphatic Hydrocarbons	14,000	76,000	J	µg/m³	400	12/28/2011 2:13 AM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	400	12/28/2011 2:13 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-005	**Matrix:**	Air
Client Sample ID:	VA0691FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.43	0.10		%	1	1/5/2012 11:26 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 11:26 AM
Methane	ND	0.50	U	%	1	1/5/2012 11:26 AM
Nitrogen	79	0.10		%	1	1/5/2012 11:26 AM
Oxygen	20	0.10		%	1	1/5/2012 11:26 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,1-Dichloroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,1-Dichloroethene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,2-Dibromoethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,2-Dichloroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,2-Dichloropropane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,3-Butadiene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
2-Butanone	ND	800	U	ppbv	800	1/6/2012 1:41 AM
2-Hexanone	ND	800	U	ppbv	800	1/6/2012 1:41 AM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Acetone	900	800		ppbv	800	1/6/2012 1:41 AM
Benzene	15,000	800		ppbv	800	1/6/2012 1:41 AM
Benzyl chloride	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Bromodichloromethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Bromoform	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Bromomethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Carbon disulfide	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Carbon tetrachloride	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Chlorobenzene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Chlorodibromomethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Chloroethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Chloroform	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Chloromethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	1/6/2012 1:41 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-005	**Matrix:**	Air
Client Sample ID:	VA0691FQ		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	13,000	1,600		ppbv	800	1/6/2012 1:41 AM
Dichlorodifluoromethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Ethyl acetate	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Ethylbenzene	ND	1,600	U	ppbv	800	1/6/2012 1:41 AM
Heptane	2,500	800		ppbv	800	1/6/2012 1:41 AM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	1/6/2012 1:41 AM
m,p-Xylene	820	1,600	J	ppbv	800	1/6/2012 1:41 AM
Methylene chloride	ND	4,000	U	ppbv	800	1/6/2012 1:41 AM
n-Hexane	13,000	1,600		ppbv	800	1/6/2012 1:41 AM
Naphthalene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
o-Xylene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Propylene	1,000	800		ppbv	800	1/6/2012 1:41 AM
Styrene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Tetrachloroethene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Tetrahydrofuran	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Toluene	1,900	800		ppbv	800	1/6/2012 1:41 AM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Trichloroethene	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Trichlorofluoromethane	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Vinyl acetate	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Vinyl chloride	ND	800	U	ppbv	800	1/6/2012 1:41 AM
Xylenes, Total	820	2,400	J	ppbv	800	1/6/2012 1:41 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	800	1/6/2012 1:41 AM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	1,600,000	940,000		µg/m³	8000	12/23/2011 3:31 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/23/2011 3:31 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/23/2011 3:31 AM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	8000	12/23/2011 3:31 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 9:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-006	**Matrix:**	Air
Client Sample ID:	VA0708		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.9	0.10		%	1	1/5/2012 11:41 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 11:41 AM
Methane	ND	0.50	U	%	1	1/5/2012 11:41 AM
Nitrogen	79	0.10		%	1	1/5/2012 11:41 AM
Oxygen	18	0.10		%	1	1/5/2012 11:41 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,3-Butadiene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
2-Butanone	ND	40	U	ppbv	40	1/11/2012 7:51 AM
2-Hexanone	ND	40	U	ppbv	40	1/11/2012 7:51 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Acetone	62	40		ppbv	40	1/11/2012 7:51 AM
Benzene	130	40		ppbv	40	1/11/2012 7:51 AM
Benzyl chloride	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Bromodichloromethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Bromoform	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Bromomethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Carbon disulfide	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Carbon tetrachloride	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Chlorobenzene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Chlorodibromomethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Chloroethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Chloroform	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Chloromethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/11/2012 7:51 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 9:38:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-006	**Matrix:**	Air
Client Sample ID:	VA0708		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	75	80	J	ppbv	40	1/11/2012 7:51 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Ethyl acetate	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Ethylbenzene	ND	80	U	ppbv	40	1/11/2012 7:51 AM
Heptane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/11/2012 7:51 AM
m,p-Xylene	45	80	J	ppbv	40	1/11/2012 7:51 AM
Methylene chloride	ND	200	U	ppbv	40	1/11/2012 7:51 AM
n-Hexane	47	80	J	ppbv	40	1/11/2012 7:51 AM
Naphthalene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
o-Xylene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Propylene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Styrene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Tetrachloroethene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Tetrahydrofuran	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Toluene	350	40		ppbv	40	1/11/2012 7:51 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Trichloroethene	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Vinyl acetate	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Vinyl chloride	ND	40	U	ppbv	40	1/11/2012 7:51 AM
Xylenes, Total	45	120	J	ppbv	40	1/11/2012 7:51 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	1/11/2012 7:51 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	13,000	4,700		µg/m³	40	1/4/2012 1:46 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/4/2012 1:46 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/4/2012 1:46 AM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	40	1/4/2012 1:46 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-007	**Matrix:**	Air
Client Sample ID:	VA0709		

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	1/5/2012 11:56 AM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 11:56 AM
Methane	ND	0.50	U	%	1	1/5/2012 11:56 AM
Nitrogen	79	0.10		%	1	1/5/2012 11:56 AM
Oxygen	17	0.10		%	1	1/5/2012 11:56 AM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,3-Butadiene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
2-Butanone	ND	40	U	ppbv	40	1/11/2012 8:36 AM
2-Hexanone	ND	40	U	ppbv	40	1/11/2012 8:36 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Acetone	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Benzene	150	40		ppbv	40	1/11/2012 8:36 AM
Benzyl chloride	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Bromodichloromethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Bromoform	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Bromomethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Carbon disulfide	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Carbon tetrachloride	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Chlorobenzene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Chlorodibromomethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Chloroethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Chloroform	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Chloromethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/11/2012 8:36 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-007	**Matrix:**	Air
Client Sample ID:	VA0709		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	100	80		ppbv	40	1/11/2012 8:36 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Ethyl acetate	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Ethylbenzene	ND	80	U	ppbv	40	1/11/2012 8:36 AM
Heptane	75	40		ppbv	40	1/11/2012 8:36 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/11/2012 8:36 AM
m,p-Xylene	74	80	J	ppbv	40	1/11/2012 8:36 AM
Methylene chloride	ND	200	U	ppbv	40	1/11/2012 8:36 AM
n-Hexane	71	80	J	ppbv	40	1/11/2012 8:36 AM
Naphthalene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
o-Xylene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Propylene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Styrene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Tetrachloroethene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Tetrahydrofuran	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Toluene	480	40		ppbv	40	1/11/2012 8:36 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Trichloroethene	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Vinyl acetate	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Vinyl chloride	ND	40	U	ppbv	40	1/11/2012 8:36 AM
Xylenes, Total	74	120	J	ppbv	40	1/11/2012 8:36 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	40	1/11/2012 8:36 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	10,000	4,700		µg/m³	40	1/4/2012 2:29 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/4/2012 2:29 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/4/2012 2:29 AM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	40	1/4/2012 2:29 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-008	**Matrix:**	Air
Client Sample ID:	VA0710		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.3	0.10		%	1	1/5/2012 12:11 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 12:11 PM
Methane	ND	0.50	U	%	1	1/5/2012 12:11 PM
Nitrogen	80	0.10		%	1	1/5/2012 12:11 PM
Oxygen	16	0.10		%	1	1/5/2012 12:11 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
2-Butanone	ND	40	U	ppbv	40	1/11/2012 3:55 PM
2-Hexanone	ND	40	U	ppbv	40	1/11/2012 3:55 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Acetone	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Benzene	240	40		ppbv	40	1/11/2012 3:55 PM
Benzyl chloride	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Bromoform	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Bromomethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Carbon disulfide	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Chlorobenzene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Chloroethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Chloroform	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Chloromethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/11/2012 3:55 PM

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 10:04:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-008	**Matrix:**	Air
Client Sample ID:	VA0710		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	210	80		ppbv	40	1/11/2012 3:55 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Ethyl acetate	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Ethylbenzene	ND	80	U	ppbv	40	1/11/2012 3:55 PM
Heptane	140	40		ppbv	40	1/11/2012 3:55 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/11/2012 3:55 PM
m,p-Xylene	90	80		ppbv	40	1/11/2012 3:55 PM
Methylene chloride	ND	200	U	ppbv	40	1/11/2012 3:55 PM
n-Hexane	130	80		ppbv	40	1/11/2012 3:55 PM
Naphthalene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
o-Xylene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Propylene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Styrene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Toluene	660	40		ppbv	40	1/11/2012 3:55 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Trichloroethene	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Vinyl acetate	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Vinyl chloride	ND	40	U	ppbv	40	1/11/2012 3:55 PM
Xylenes, Total	90	120	J	ppbv	40	1/11/2012 3:55 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	1/11/2012 3:55 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	22,000	4,700		µg/m³	40	1/4/2012 9:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/4/2012 9:00 PM
C9-C12 Aliphatic Hydrocarbons	1,000	7,600	J	µg/m³	40	1/4/2012 9:00 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	40	1/4/2012 9:00 PM

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 10:37:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-009	**Matrix:**	Air
Client Sample ID:	VA0711		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	1.1	0.10		%	1	1/5/2012 12:26 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 12:26 PM
Methane	ND	0.50	U	%	1	1/5/2012 12:26 PM
Nitrogen	82	0.10		%	1	1/5/2012 12:26 PM
Oxygen	15	0.10		%	1	1/5/2012 12:26 PM

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 11:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-010	**Matrix:**	Air
Client Sample ID:	VA0712		

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	1/5/2012 12:41 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 12:41 PM
Methane	ND	0.50	U	%	1	1/5/2012 12:41 PM
Nitrogen	79	0.10		%	1	1/5/2012 12:41 PM
Oxygen	19	0.10		%	1	1/5/2012 12:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
2-Butanone	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
2-Hexanone	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Acetone	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Benzene	130,000	8,000		ppbv	8000	1/12/2012 1:33 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Bromoform	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Bromomethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Chloroethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Chloroform	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Chloromethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 11:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-010	**Matrix:**	Air
Client Sample ID:	VA0712		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	110,000	16,000		ppbv	8000	1/12/2012 1:33 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/12/2012 1:33 PM
Heptane	37,000	8,000		ppbv	8000	1/12/2012 1:33 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/12/2012 1:33 PM
m,p-Xylene	9,100	16,000	J	ppbv	8000	1/12/2012 1:33 PM
Methylene chloride	ND	40,000	U	ppbv	8000	1/12/2012 1:33 PM
n-Hexane	96,000	16,000		ppbv	8000	1/12/2012 1:33 PM
Naphthalene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
o-Xylene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Propylene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Styrene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Toluene	160,000	8,000		ppbv	8000	1/12/2012 1:33 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Trichloroethene	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/12/2012 1:33 PM
Xylenes, Total	9,100	24,000	J	ppbv	8000	1/12/2012 1:33 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	8000	1/12/2012 1:33 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,200,000	940,000		µg/m³	8000	1/2/2012 10:50 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/2/2012 10:50 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/2/2012 10:50 PM
Surr: 4-Bromofluorobenzene	91.9	70-130		%REC	8000	1/2/2012 10:50 PM

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 8:49:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-011	**Matrix:**	Air
Client Sample ID:	VA0713		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.56	0.10		%	1	1/5/2012 1:26 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 1:26 PM
Methane	ND	0.50	U	%	1	1/5/2012 1:26 PM
Nitrogen	79	0.10		%	1	1/5/2012 1:26 PM
Oxygen	19	0.10		%	1	1/5/2012 1:26 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,3-Butadiene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
2-Butanone	ND	400	U	ppbv	400	12/31/2011 12:41 PM
2-Hexanone	ND	400	U	ppbv	400	12/31/2011 12:41 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Acetone	930	400		ppbv	400	12/31/2011 12:41 PM
Benzene	8,000	400		ppbv	400	12/31/2011 12:41 PM
Benzyl chloride	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Bromodichloromethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Bromoform	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Bromomethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Carbon disulfide	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Carbon tetrachloride	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Chlorobenzene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Chlorodibromomethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Chloroethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Chloroform	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Chloromethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	12/31/2011 12:41 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 8:49:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-011	**Matrix:**	Air
Client Sample ID:	VA0713		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,400	800		ppbv	400	12/31/2011 12:41 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Ethyl acetate	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Ethylbenzene	420	800	J	ppbv	400	12/31/2011 12:41 PM
Heptane	950	400		ppbv	400	12/31/2011 12:41 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	12/31/2011 12:41 PM
m,p-Xylene	1,500	800		ppbv	400	12/31/2011 12:41 PM
Methylene chloride	5,000	2,000		ppbv	400	12/31/2011 12:41 PM
n-Hexane	2,600	800		ppbv	400	12/31/2011 12:41 PM
Naphthalene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
o-Xylene	440	400		ppbv	400	12/31/2011 12:41 PM
Propylene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Styrene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Tetrachloroethene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Tetrahydrofuran	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Toluene	7,300	400		ppbv	400	12/31/2011 12:41 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Trichloroethene	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Vinyl acetate	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Vinyl chloride	ND	400	U	ppbv	400	12/31/2011 12:41 PM
Xylenes, Total	2,000	1,200		ppbv	400	12/31/2011 12:41 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	12/31/2011 12:41 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	200,000	47,000		µg/m³	400	12/27/2011 5:36 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	U	µg/m³	400	12/27/2011 5:36 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	U	µg/m³	400	12/27/2011 5:36 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	400	12/27/2011 5:36 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 9:16:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-012	**Matrix:**	Air
Client Sample ID:	VA0714		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.6	0.10		%	1	1/5/2012 1:40 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 1:40 PM
Methane	ND	0.50	U	%	1	1/5/2012 1:40 PM
Nitrogen	80	0.10		%	1	1/5/2012 1:40 PM
Oxygen	15	0.10		%	1	1/5/2012 1:40 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
2-Butanone	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
2-Hexanone	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Acetone	26	8.0		ppbv	8	12/31/2011 1:29 PM
Benzene	32	8.0		ppbv	8	12/31/2011 1:29 PM
Benzyl chloride	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Bromoform	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Bromomethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Carbon disulfide	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Chlorobenzene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Chloroethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Chloroform	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Chloromethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 9:16:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-012	**Matrix:**	Air
Client Sample ID:	VA0714		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	330	16		ppbv	8	12/31/2011 1:29 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Ethyl acetate	11	8.0		ppbv	8	12/31/2011 1:29 PM
Ethylbenzene	ND	16	U	ppbv	8	12/31/2011 1:29 PM
Heptane	170	8.0		ppbv	8	12/31/2011 1:29 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	12/31/2011 1:29 PM
m,p-Xylene	9.6	16	J	ppbv	8	12/31/2011 1:29 PM
Methylene chloride	26	40	J	ppbv	8	12/31/2011 1:29 PM
n-Hexane	48	16		ppbv	8	12/31/2011 1:29 PM
Naphthalene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
o-Xylene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Propylene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Styrene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Toluene	85	8.0		ppbv	8	12/31/2011 1:29 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Trichloroethene	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Vinyl acetate	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Vinyl chloride	ND	8.0	U	ppbv	8	12/31/2011 1:29 PM
Xylenes, Total	9.6	24	J	ppbv	8	12/31/2011 1:29 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8	12/31/2011 1:29 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	6,800	940		µg/m³	8	1/2/2012 2:50 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/2/2012 2:50 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/2/2012 2:50 PM
Surr: 4-Bromofluorobenzene	91.6	70-130		%REC	8	1/2/2012 2:50 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 9:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-013	**Matrix:**	Air
Client Sample ID:	VA0715		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.3	0.10		%	1	1/5/2012 1:55 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 1:55 PM
Methane	ND	0.50	U	%	1	1/5/2012 1:55 PM
Nitrogen	79	0.10		%	1	1/5/2012 1:55 PM
Oxygen	16	0.10		%	1	1/5/2012 1:55 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
2-Butanone	ND	40	U	ppbv	40	1/5/2012 8:56 PM
2-Hexanone	ND	40	U	ppbv	40	1/5/2012 8:56 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Acetone	46	40		ppbv	40	1/5/2012 8:56 PM
Benzene	230	40		ppbv	40	1/5/2012 8:56 PM
Benzyl chloride	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Bromoform	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Bromomethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Carbon disulfide	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Chlorobenzene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Chloroethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Chloroform	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Chloromethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 8:56 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 9:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-013	**Matrix:**	Air
Client Sample ID:	VA0715		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	100	80		ppbv	40	1/5/2012 8:56 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Ethyl acetate	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Ethylbenzene	ND	80	U	ppbv	40	1/5/2012 8:56 PM
Heptane	74	40		ppbv	40	1/5/2012 8:56 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/5/2012 8:56 PM
m,p-Xylene	99	80		ppbv	40	1/5/2012 8:56 PM
Methylene chloride	ND	200	U	ppbv	40	1/5/2012 8:56 PM
n-Hexane	73	80	J	ppbv	40	1/5/2012 8:56 PM
Naphthalene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
o-Xylene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Propylene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Styrene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Toluene	650	40		ppbv	40	1/5/2012 8:56 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Trichloroethene	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Vinyl acetate	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Vinyl chloride	ND	40	U	ppbv	40	1/5/2012 8:56 PM
Xylenes, Total	99	120	J	ppbv	40	1/5/2012 8:56 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	40	1/5/2012 8:56 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,800	4,700		µg/m³	40	1/2/2012 3:33 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/2/2012 3:33 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/2/2012 3:33 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	40	1/2/2012 3:33 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 2:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-014	**Matrix:**	Air
Client Sample ID:	VA0738		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.87	0.10		%	1	1/5/2012 2:10 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 2:10 PM
Methane	ND	0.50	U	%	1	1/5/2012 2:10 PM
Nitrogen	81	0.10		%	1	1/5/2012 2:10 PM
Oxygen	16	0.10		%	1	1/5/2012 2:10 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
2-Butanone	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
2-Hexanone	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Acetone	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Benzene	140,000	8,000		ppbv	8000	1/5/2012 4:53 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Bromoform	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Bromomethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Chloroethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Chloroform	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Chloromethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 2:06:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-014	**Matrix:**	Air
Client Sample ID:	VA0738		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	300,000	16,000		ppbv	8000	1/5/2012 4:53 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/5/2012 4:53 PM
Heptane	65,000	8,000		ppbv	8000	1/5/2012 4:53 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/5/2012 4:53 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	1/5/2012 4:53 PM
Methylene chloride	ND	40,000	U	ppbv	8000	1/5/2012 4:53 PM
n-Hexane	180,000	16,000		ppbv	8000	1/5/2012 4:53 PM
Naphthalene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
o-Xylene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Propylene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Styrene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Toluene	120,000	8,000		ppbv	8000	1/5/2012 4:53 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Trichloroethene	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/5/2012 4:53 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	1/5/2012 4:53 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	8000	1/5/2012 4:53 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	11,000,000	940,000		µg/m³	8000	12/29/2011 2:48 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/29/2011 2:48 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/29/2011 2:48 AM
Surr: 4-Bromofluorobenzene	91.0	70-130		%REC	8000	12/29/2011 2:48 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-015	**Matrix:**	Air
Client Sample ID:	VA0739		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.47	0.10		%	1	1/5/2012 2:25 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 2:25 PM
Methane	ND	0.50	U	%	1	1/5/2012 2:25 PM
Nitrogen	80	0.10		%	1	1/5/2012 2:25 PM
Oxygen	18	0.10		%	1	1/5/2012 2:25 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
2-Butanone	ND	40	U	ppbv	40	1/5/2012 5:39 PM
2-Hexanone	ND	40	U	ppbv	40	1/5/2012 5:39 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Acetone	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Benzene	480	40		ppbv	40	1/5/2012 5:39 PM
Benzyl chloride	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Bromoform	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Bromomethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Carbon disulfide	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Chlorobenzene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Chloroethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Chloroform	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Chloromethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 5:39 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-015	**Matrix:**	Air
Client Sample ID:	VA0739		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	470	80		ppbv	40	1/5/2012 5:39 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Ethyl acetate	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Ethylbenzene	95	80		ppbv	40	1/5/2012 5:39 PM
Heptane	410	40		ppbv	40	1/5/2012 5:39 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/5/2012 5:39 PM
m,p-Xylene	350	80		ppbv	40	1/5/2012 5:39 PM
Methylene chloride	ND	200	U	ppbv	40	1/5/2012 5:39 PM
n-Hexane	290	80		ppbv	40	1/5/2012 5:39 PM
Naphthalene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
o-Xylene	88	40		ppbv	40	1/5/2012 5:39 PM
Propylene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Styrene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Toluene	2,700	400	H	ppbv	400	1/17/2012 4:26 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Trichloroethene	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Vinyl acetate	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Vinyl chloride	ND	40	U	ppbv	40	1/5/2012 5:39 PM
Xylenes, Total	430	120		ppbv	40	1/5/2012 5:39 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40	1/5/2012 5:39 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	19,000	4,700		µg/m³	40	1/3/2012 11:37 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/3/2012 11:37 PM
C9-C12 Aliphatic Hydrocarbons	2,500	7,600	J	µg/m³	40	1/3/2012 11:37 PM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	40	1/3/2012 11:37 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-016	**Matrix:**	Air
Client Sample ID:	VA0740		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	1/5/2012 2:42 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 2:42 PM
Methane	ND	0.50	U	%	1	1/5/2012 2:42 PM
Nitrogen	78	0.10		%	1	1/5/2012 2:42 PM
Oxygen	20	0.10		%	1	1/5/2012 2:42 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
2-Butanone	ND	40	U	ppbv	40	1/5/2012 6:25 PM
2-Hexanone	ND	40	U	ppbv	40	1/5/2012 6:25 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Acetone	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Benzene	360	40		ppbv	40	1/5/2012 6:25 PM
Benzyl chloride	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Bromoform	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Bromomethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Carbon disulfide	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Chlorobenzene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Chloroethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Chloroform	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Chloromethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 6:25 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-016	**Matrix:**	Air
Client Sample ID:	VA0740		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	510	80		ppbv	40	1/5/2012 6:25 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Ethyl acetate	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Ethylbenzene	48	80	J	ppbv	40	1/5/2012 6:25 PM
Heptane	270	40		ppbv	40	1/5/2012 6:25 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/5/2012 6:25 PM
m,p-Xylene	160	80		ppbv	40	1/5/2012 6:25 PM
Methylene chloride	ND	200	U	ppbv	40	1/5/2012 6:25 PM
n-Hexane	270	80		ppbv	40	1/5/2012 6:25 PM
Naphthalene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
o-Xylene	43	40		ppbv	40	1/5/2012 6:25 PM
Propylene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Styrene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Toluene	1,100	40		ppbv	40	1/5/2012 6:25 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Trichloroethene	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Vinyl acetate	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Vinyl chloride	ND	40	U	ppbv	40	1/5/2012 6:25 PM
Xylenes, Total	200	120		ppbv	40	1/5/2012 6:25 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	40	1/5/2012 6:25 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	27,000	4,700		µg/m³	40	1/4/2012 12:20 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/4/2012 12:20 AM
C9-C12 Aliphatic Hydrocarbons	3,600	7,600	J	µg/m³	40	1/4/2012 12:20 AM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	40	1/4/2012 12:20 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-017	**Matrix:**	Air
Client Sample ID:	VA0741		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.98	0.10		%	1	1/5/2012 2:57 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 2:57 PM
Methane	ND	0.50	U	%	1	1/5/2012 2:57 PM
Nitrogen	80	0.10		%	1	1/5/2012 2:57 PM
Oxygen	18	0.10		%	1	1/5/2012 2:57 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
2-Butanone	ND	40	U	ppbv	40	1/10/2012 10:49 PM
2-Hexanone	ND	40	U	ppbv	40	1/10/2012 10:49 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Acetone	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Benzene	530	40		ppbv	40	1/10/2012 10:49 PM
Benzyl chloride	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Bromoform	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Bromomethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Carbon disulfide	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Chlorobenzene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Chloroethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Chloroform	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Chloromethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/10/2012 10:49 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-017	**Matrix:**	Air
Client Sample ID:	VA0741		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,000	80		ppbv	40	1/10/2012 10:49 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Ethyl acetate	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Ethylbenzene	ND	80	U	ppbv	40	1/10/2012 10:49 PM
Heptane	230	40		ppbv	40	1/10/2012 10:49 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/10/2012 10:49 PM
m,p-Xylene	130	80		ppbv	40	1/10/2012 10:49 PM
Methylene chloride	ND	200	U	ppbv	40	1/10/2012 10:49 PM
n-Hexane	530	80		ppbv	40	1/10/2012 10:49 PM
Naphthalene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
o-Xylene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Propylene	83	40		ppbv	40	1/10/2012 10:49 PM
Styrene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Toluene	630	40		ppbv	40	1/10/2012 10:49 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Trichloroethene	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Vinyl acetate	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Vinyl chloride	ND	40	U	ppbv	40	1/10/2012 10:49 PM
Xylenes, Total	130	120		ppbv	40	1/10/2012 10:49 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	1/10/2012 10:49 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	110,000	4,700		µg/m³	40	1/4/2012 1:03 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/4/2012 1:03 AM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/4/2012 1:03 AM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	40	1/4/2012 1:03 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 3:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-018	**Matrix:**	Air
Client Sample ID:	VA0742		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.34	0.10		%	1	1/5/2012 3:14 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 3:14 PM
Methane	ND	0.50	U	%	1	1/5/2012 3:14 PM
Nitrogen	80	0.10		%	1	1/5/2012 3:14 PM
Oxygen	19	0.10		%	1	1/5/2012 3:14 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,1,2,2-Tetrachloroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,1,2-Trichloroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,1-Dichloroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,1-Dichloroethene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,2,4-Trichlorobenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,2,4-Trimethylbenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,2-Dibromoethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,2-Dichlorobenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,2-Dichloroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,2-Dichloropropane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,3,5-Trimethylbenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,3-Butadiene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,3-Dichlorobenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
1,4-Dichlorobenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
2-Butanone	ND	80	U	ppbv	80	1/10/2012 11:34 PM
2-Hexanone	ND	80	U	ppbv	80	1/10/2012 11:34 PM
4-Methyl-2-pentanone	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Acetone	100	80		ppbv	80	1/10/2012 11:34 PM
Benzene	1,200	80		ppbv	80	1/10/2012 11:34 PM
Benzyl chloride	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Bromodichloromethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Bromoform	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Bromomethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Carbon disulfide	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Carbon tetrachloride	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Chlorobenzene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Chlorodibromomethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Chloroethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Chloroform	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Chloromethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
cis-1,2-Dichloroethene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
cis-1,3-dichloropropene	ND	80	U	ppbv	80	1/10/2012 11:34 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 3:50:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-018	**Matrix:**	Air
Client Sample ID:	VA0742		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	860	160		ppbv	80	1/10/2012 11:34 PM
Dichlorodifluoromethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Ethyl acetate	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Ethylbenzene	ND	160	U	ppbv	80	1/10/2012 11:34 PM
Heptane	130	80		ppbv	80	1/10/2012 11:34 PM
Hexachlorobutadiene	ND	160	U	ppbv	80	1/10/2012 11:34 PM
m,p-Xylene	ND	160	U	ppbv	80	1/10/2012 11:34 PM
Methylene chloride	810	400		ppbv	80	1/10/2012 11:34 PM
n-Hexane	820	160		ppbv	80	1/10/2012 11:34 PM
Naphthalene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
o-Xylene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Propylene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Styrene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
tert-Butyl Methyl Ether	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Tetrachloroethene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Tetrahydrofuran	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Toluene	290	80		ppbv	80	1/10/2012 11:34 PM
trans-1,2-Dichloroethene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
trans-1,3-dichloropropene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Trichloroethene	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Trichlorofluoromethane	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Vinyl acetate	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Vinyl chloride	ND	80	U	ppbv	80	1/10/2012 11:34 PM
Xylenes, Total	ND	240	U	ppbv	80	1/10/2012 11:34 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	80	1/10/2012 11:34 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,100,000	940,000		µg/m³	8000	1/2/2012 7:11 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/2/2012 7:11 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/2/2012 7:11 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	8000	1/2/2012 7:11 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 8:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-019	**Matrix:**	Air
Client Sample ID:	VA0767		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.26	0.10		%	1	1/5/2012 3:29 PM
Carbon Monoxide	ND	0.10	U	%	1	1/5/2012 3:29 PM
Methane	ND	0.50	U	%	1	1/5/2012 3:29 PM
Nitrogen	79	0.10		%	1	1/5/2012 3:29 PM
Oxygen	20	0.10		%	1	1/5/2012 3:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
2-Butanone	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
2-Hexanone	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Acetone	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Benzene	23,000	8,000		ppbv	8000	1/11/2012 7:06 AM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Bromoform	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Bromomethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Chloroethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Chloroform	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Chloromethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/15/2011 8:41:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-019	**Matrix:**	Air
Client Sample ID:	VA0767		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	20,000	16,000		ppbv	8000	1/11/2012 7:06 AM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/11/2012 7:06 AM
Heptane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/11/2012 7:06 AM
m,p-Xylene	ND	16,000	U	ppbv	8000	1/11/2012 7:06 AM
Methylene chloride	ND	40,000	U	ppbv	8000	1/11/2012 7:06 AM
n-Hexane	18,000	16,000		ppbv	8000	1/11/2012 7:06 AM
Naphthalene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
o-Xylene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Propylene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Styrene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Toluene	48,000	8,000		ppbv	8000	1/11/2012 7:06 AM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Trichloroethene	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/11/2012 7:06 AM
Xylenes, Total	ND	24,000	U	ppbv	8000	1/11/2012 7:06 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	1/11/2012 7:06 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800,000	940,000		µg/m³	8000	1/2/2012 7:55 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	1/2/2012 7:55 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	1/2/2012 7:55 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	8000	1/2/2012 7:55 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 11:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-020	**Matrix:**	Air
Client Sample ID:	VA0896		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.077	0.10	J	%	1	1/6/2012 12:44 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 12:44 PM
Methane	ND	0.50	U	%	1	1/6/2012 12:44 PM
Nitrogen	78	0.10		%	1	1/6/2012 12:44 PM
Oxygen	21	0.10		%	1	1/6/2012 12:44 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,1,2,2-Tetrachloroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,1,2-Trichloroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,1-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,1-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,2,4-Trichlorobenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,2,4-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,2-Dibromoethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,2-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,2-Dichloroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,2-Dichloropropane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,3,5-Trimethylbenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,3-Butadiene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,3-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
1,4-Dichlorobenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
2-Butanone	ND	800	U	ppbv	800	12/31/2011 2:18 PM
2-Hexanone	ND	800	U	ppbv	800	12/31/2011 2:18 PM
4-Methyl-2-pentanone	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Acetone	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Benzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Benzyl chloride	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Bromodichloromethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Bromoform	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Bromomethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Carbon disulfide	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Carbon tetrachloride	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Chlorobenzene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Chlorodibromomethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Chloroethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Chloroform	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Chloromethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
cis-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
cis-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 2:18 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 11:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-020	**Matrix:**	Air
Client Sample ID:	VA0896		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	1,600	J	ppbv	800	12/31/2011 2:18 PM
Dichlorodifluoromethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Ethyl acetate	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Ethylbenzene	ND	1,600	U	ppbv	800	12/31/2011 2:18 PM
Heptane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Hexachlorobutadiene	ND	1,600	U	ppbv	800	12/31/2011 2:18 PM
m,p-Xylene	ND	1,600	U	ppbv	800	12/31/2011 2:18 PM
Methylene chloride	ND	4,000	U	ppbv	800	12/31/2011 2:18 PM
n-Hexane	1,100	1,600	J	ppbv	800	12/31/2011 2:18 PM
Naphthalene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
o-Xylene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Propylene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Styrene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
tert-Butyl Methyl Ether	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Tetrachloroethene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Tetrahydrofuran	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Toluene	860	800		ppbv	800	12/31/2011 2:18 PM
trans-1,2-Dichloroethene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
trans-1,3-dichloropropene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Trichloroethene	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Trichlorofluoromethane	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Vinyl acetate	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Vinyl chloride	ND	800	U	ppbv	800	12/31/2011 2:18 PM
Xylenes, Total	ND	2,400	U	ppbv	800	12/31/2011 2:18 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	800	12/31/2011 2:18 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	720,000	94,000		µg/m³	800	12/27/2011 8:36 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000	U	µg/m³	800	12/27/2011 8:36 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000	U	µg/m³	800	12/27/2011 8:36 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	800	12/27/2011 8:36 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 12:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-021	**Matrix:**	Air
Client Sample ID:	VA0897		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.47	0.10		%	1	1/6/2012 12:59 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 12:59 PM
Methane	ND	0.50	U	%	1	1/6/2012 12:59 PM
Nitrogen	77	0.10		%	1	1/6/2012 12:59 PM
Oxygen	20	0.10		%	1	1/6/2012 12:59 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 12:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-022	**Matrix:**	Air
Client Sample ID:	VA0898		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.43	0.10		%	1	1/6/2012 1:14 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 1:14 PM
Methane	ND	0.50	U	%	1	1/6/2012 1:14 PM
Nitrogen	78	0.10		%	1	1/6/2012 1:14 PM
Oxygen	20	0.10		%	1	1/6/2012 1:14 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 8:49 AM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 8:49 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Acetone	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Benzene	46	40		ppbv	40	1/3/2012 8:49 AM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Bromoform	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Chloroform	61	40		ppbv	40	1/3/2012 8:49 AM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 8:49 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 12:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-022	**Matrix:**	Air
Client Sample ID:	VA0898		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	250	80		ppbv	40	1/3/2012 8:49 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 8:49 AM
Heptane	130	40		ppbv	40	1/3/2012 8:49 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 8:49 AM
m,p-Xylene	55	80	J	ppbv	40	1/3/2012 8:49 AM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 8:49 AM
n-Hexane	110	80		ppbv	40	1/3/2012 8:49 AM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
o-Xylene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Propylene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Styrene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Toluene	100	40		ppbv	40	1/3/2012 8:49 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 8:49 AM
Xylenes, Total	55	120	J	ppbv	40	1/3/2012 8:49 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	1/3/2012 8:49 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	18,000	4,700		µg/m³	40	1/3/2012 6:34 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/3/2012 6:34 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/3/2012 6:34 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	40	1/3/2012 6:34 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 12:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-023	**Matrix:**	Air
Client Sample ID:	VA0899		

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	1/6/2012 1:29 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 1:29 PM
Methane	ND	0.50	U	%	1	1/6/2012 1:29 PM
Nitrogen	78	0.10		%	1	1/6/2012 1:29 PM
Oxygen	20	0.10		%	1	1/6/2012 1:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,2,4-Trimethylbenzene	45	40		ppbv	40	1/3/2012 9:34 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 9:34 AM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 9:34 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Acetone	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Benzene	97	40		ppbv	40	1/3/2012 9:34 AM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Bromoform	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Chloroform	93	40		ppbv	40	1/3/2012 9:34 AM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 9:34 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 12:53:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-023	**Matrix:**	Air
Client Sample ID:	VA0899		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	340	80		ppbv	40	1/3/2012 9:34 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 9:34 AM
Heptane	290	40		ppbv	40	1/3/2012 9:34 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 9:34 AM
m,p-Xylene	120	80		ppbv	40	1/3/2012 9:34 AM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 9:34 AM
n-Hexane	280	80		ppbv	40	1/3/2012 9:34 AM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
o-Xylene	45	40		ppbv	40	1/3/2012 9:34 AM
Propylene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Styrene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Toluene	260	40		ppbv	40	1/3/2012 9:34 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 9:34 AM
Xylenes, Total	170	120		ppbv	40	1/3/2012 9:34 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	1/3/2012 9:34 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	24,000	4,700		µg/m³	40	1/3/2012 7:18 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	U	µg/m³	40	1/3/2012 7:18 PM
C9-C12 Aliphatic Hydrocarbons	1,700	7,600	J	µg/m³	40	1/3/2012 7:18 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	40	1/3/2012 7:18 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 1:40:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-024	**Matrix:**	Air
Client Sample ID:	VA0900		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	1/6/2012 1:44 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 1:44 PM
Methane	ND	0.50	U	%	1	1/6/2012 1:44 PM
Nitrogen	78	0.10		%	1	1/6/2012 1:44 PM
Oxygen	20	0.10		%	1	1/6/2012 1:44 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,2,4-Trimethylbenzene	21	8.0		ppbv	8	1/6/2012 2:28 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,3,5-Trimethylbenzene	8.5	8.0		ppbv	8	1/6/2012 2:28 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
2-Butanone	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
2-Hexanone	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Acetone	15	8.0		ppbv	8	1/6/2012 2:28 AM
Benzene	55	8.0		ppbv	8	1/6/2012 2:28 AM
Benzyl chloride	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Bromoform	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Bromomethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Carbon disulfide	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Chlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Chloroethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Chloroform	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Chloromethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 1:40:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-024	**Matrix:**	Air
Client Sample ID:	VA0900		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	90	16		ppbv	8	1/6/2012 2:28 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Ethyl acetate	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Ethylbenzene	14	16	J	ppbv	8	1/6/2012 2:28 AM
Heptane	85	8.0		ppbv	8	1/6/2012 2:28 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	1/6/2012 2:28 AM
m,p-Xylene	60	16		ppbv	8	1/6/2012 2:28 AM
Methylene chloride	ND	40	U	ppbv	8	1/6/2012 2:28 AM
n-Hexane	77	16		ppbv	8	1/6/2012 2:28 AM
Naphthalene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
o-Xylene	19	8.0		ppbv	8	1/6/2012 2:28 AM
Propylene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Styrene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Toluene	130	8.0		ppbv	8	1/6/2012 2:28 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Trichloroethene	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Vinyl acetate	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Vinyl chloride	ND	8.0	U	ppbv	8	1/6/2012 2:28 AM
Xylenes, Total	80	24		ppbv	8	1/6/2012 2:28 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8	1/6/2012 2:28 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,600	940		µg/m³	8	1/3/2012 4:23 PM
C9-C10 Aromatic Hydrocarbons	340	1,100	J	µg/m³	8	1/3/2012 4:23 PM
C9-C12 Aliphatic Hydrocarbons	1,300	1,500	J	µg/m³	8	1/3/2012 4:23 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	8	1/3/2012 4:23 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 2:23:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-025	**Matrix:**	Air
Client Sample ID:	VA0901		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/6/2012 1:59 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 1:59 PM
Methane	ND	0.50	U	%	1	1/6/2012 1:59 PM
Nitrogen	78	0.10		%	1	1/6/2012 1:59 PM
Oxygen	20	0.10		%	1	1/6/2012 1:59 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,2,4-Trimethylbenzene	14	8.0		ppbv	8	1/5/2012 7:11 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
2-Butanone	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
2-Hexanone	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Acetone	71	8.0		ppbv	8	1/5/2012 7:11 PM
Benzene	34	8.0		ppbv	8	1/5/2012 7:11 PM
Benzyl chloride	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Bromoform	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Bromomethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Carbon disulfide	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Chlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Chloroethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Chloroform	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Chloromethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 2:23:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-025	**Matrix:**	Air
Client Sample ID:	VA0901		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	42	16		ppbv	8	1/5/2012 7:11 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Ethyl acetate	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Ethylbenzene	9.3	16	J	ppbv	8	1/5/2012 7:11 PM
Heptane	36	8.0		ppbv	8	1/5/2012 7:11 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	1/5/2012 7:11 PM
m,p-Xylene	38	16		ppbv	8	1/5/2012 7:11 PM
Methylene chloride	ND	40	U	ppbv	8	1/5/2012 7:11 PM
n-Hexane	33	16		ppbv	8	1/5/2012 7:11 PM
Naphthalene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
o-Xylene	12	8.0		ppbv	8	1/5/2012 7:11 PM
Propylene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Styrene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Toluene	70	8.0		ppbv	8	1/5/2012 7:11 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Trichloroethene	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Vinyl acetate	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Vinyl chloride	ND	8.0	U	ppbv	8	1/5/2012 7:11 PM
Xylenes, Total	51	24		ppbv	8	1/5/2012 7:11 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	8	1/5/2012 7:11 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	4,700	940		µg/m³	8	1/4/2012 3:43 PM
C9-C10 Aromatic Hydrocarbons	340	1,100	J	µg/m³	8	1/4/2012 3:43 PM
C9-C12 Aliphatic Hydrocarbons	1,200	1,500	J	µg/m³	8	1/4/2012 3:43 PM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	8	1/4/2012 3:43 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 3:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-026	**Matrix:**	Air
Client Sample ID:	VA0902		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	1/6/2012 2:14 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 2:14 PM
Methane	ND	0.50	U	%	1	1/6/2012 2:14 PM
Nitrogen	78	0.10		%	1	1/6/2012 2:14 PM
Oxygen	20	0.10		%	1	1/6/2012 2:14 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,1,2,2-Tetrachloroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,1,2-Trichloroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,1-Dichloroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,1-Dichloroethene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,2,4-Trichlorobenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,2,4-Trimethylbenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,2-Dibromoethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,2-Dichlorobenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,2-Dichloroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,2-Dichloropropane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,3,5-Trimethylbenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,3-Butadiene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,3-Dichlorobenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
1,4-Dichlorobenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
2-Butanone	ND	400	U	ppbv	400	1/5/2012 8:11 PM
2-Hexanone	ND	400	U	ppbv	400	1/5/2012 8:11 PM
4-Methyl-2-pentanone	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Acetone	840	400		ppbv	400	1/5/2012 8:11 PM
Benzene	3,000	400		ppbv	400	1/5/2012 8:11 PM
Benzyl chloride	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Bromodichloromethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Bromoform	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Bromomethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Carbon disulfide	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Carbon tetrachloride	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Chlorobenzene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Chlorodibromomethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Chloroethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Chloroform	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Chloromethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
cis-1,2-Dichloroethene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
cis-1,3-dichloropropene	ND	400	U	ppbv	400	1/5/2012 8:11 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 3:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-026	**Matrix:**	Air
Client Sample ID:	VA0902		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,800	800		ppbv	400	1/5/2012 8:11 PM
Dichlorodifluoromethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Ethyl acetate	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Ethylbenzene	ND	800	U	ppbv	400	1/5/2012 8:11 PM
Heptane	1,300	400		ppbv	400	1/5/2012 8:11 PM
Hexachlorobutadiene	ND	800	U	ppbv	400	1/5/2012 8:11 PM
m,p-Xylene	910	800		ppbv	400	1/5/2012 8:11 PM
Methylene chloride	1,500	2,000	J	ppbv	400	1/5/2012 8:11 PM
n-Hexane	5,600	800		ppbv	400	1/5/2012 8:11 PM
Naphthalene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
o-Xylene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Propylene	1,100	400		ppbv	400	1/5/2012 8:11 PM
Styrene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
tert-Butyl Methyl Ether	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Tetrachloroethene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Tetrahydrofuran	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Toluene	5,300	400		ppbv	400	1/5/2012 8:11 PM
trans-1,2-Dichloroethene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
trans-1,3-dichloropropene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Trichloroethene	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Trichlorofluoromethane	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Vinyl acetate	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Vinyl chloride	ND	400	U	ppbv	400	1/5/2012 8:11 PM
Xylenes, Total	910	1,200	J	ppbv	400	1/5/2012 8:11 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	1/5/2012 8:11 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,600,000	940,000		µg/m³	8000	12/28/2011 7:41 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/28/2011 7:41 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/28/2011 7:41 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	8000	12/28/2011 7:41 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 3:46:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-027	**Matrix:**	Air
Client Sample ID:	VA0903		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.27	0.10		%	1	1/6/2012 2:29 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 2:29 PM
Methane	ND	0.50	U	%	1	1/6/2012 2:29 PM
Nitrogen	78	0.10		%	1	1/6/2012 2:29 PM
Oxygen	19	0.10		%	1	1/6/2012 2:29 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,1,2,2-Tetrachloroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,1,2-Trichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,1-Dichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,1-Dichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,2,4-Trichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,2,4-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,2-Dibromoethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,2-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,2-Dichloroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,2-Dichloropropane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,3,5-Trimethylbenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,3-Butadiene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,3-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
1,4-Dichlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
2-Butanone	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
2-Hexanone	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
4-Methyl-2-pentanone	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Acetone	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Benzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Benzyl chloride	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Bromodichloromethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Bromoform	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Bromomethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Carbon disulfide	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Carbon tetrachloride	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Chlorobenzene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Chlorodibromomethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Chloroethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Chloroform	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Chloromethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
cis-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
cis-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/13/2011 3:46:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-027	**Matrix:**	Air
Client Sample ID:	VA0903		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	29,000	16,000		ppbv	8000	1/3/2012 2:07 PM
Dichlorodifluoromethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Ethyl acetate	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Ethylbenzene	ND	16,000	U	ppbv	8000	1/3/2012 2:07 PM
Heptane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Hexachlorobutadiene	ND	16,000	U	ppbv	8000	1/3/2012 2:07 PM
m,p-Xylene	ND	16,000	U	ppbv	8000	1/3/2012 2:07 PM
Methylene chloride	ND	40,000	U	ppbv	8000	1/3/2012 2:07 PM
n-Hexane	28,000	16,000		ppbv	8000	1/3/2012 2:07 PM
Naphthalene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
o-Xylene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Propylene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Styrene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
tert-Butyl Methyl Ether	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Tetrachloroethene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Tetrahydrofuran	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Toluene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
trans-1,2-Dichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
trans-1,3-dichloropropene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Trichloroethene	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Trichlorofluoromethane	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Vinyl acetate	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Vinyl chloride	ND	8,000	U	ppbv	8000	1/3/2012 2:07 PM
Xylenes, Total	ND	24,000	U	ppbv	8000	1/3/2012 2:07 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	8000	1/3/2012 2:07 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,000,000	940,000		µg/m³	8000	12/28/2011 9:06 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	U	µg/m³	8000	12/28/2011 9:06 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	U	µg/m³	8000	12/28/2011 9:06 PM
Surr: 4-Bromofluorobenzene	93.6	70-130		%REC	8000	12/28/2011 9:06 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 1:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-028	**Matrix:**	Air
Client Sample ID:	VA0972		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.11	0.10		%	1	1/6/2012 2:44 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 2:44 PM
Methane	ND	0.50	U	%	1	1/6/2012 2:44 PM
Nitrogen	77	0.10		%	1	1/6/2012 2:44 PM
Oxygen	20	0.10		%	1	1/6/2012 2:44 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,1,2,2-Tetrachloroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,1,2-Trichloroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,1-Dichloroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,1-Dichloroethene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,2,4-Trichlorobenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,2,4-Trimethylbenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,2-Dibromoethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,2-Dichlorobenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,2-Dichloroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,2-Dichloropropane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,3,5-Trimethylbenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,3-Butadiene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,3-Dichlorobenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
1,4-Dichlorobenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
2-Butanone	ND	16	U	ppbv	16	1/5/2012 9:43 PM
2-Hexanone	ND	16	U	ppbv	16	1/5/2012 9:43 PM
4-Methyl-2-pentanone	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Acetone	17	16		ppbv	16	1/5/2012 9:43 PM
Benzene	21	16		ppbv	16	1/5/2012 9:43 PM
Benzyl chloride	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Bromodichloromethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Bromoform	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Bromomethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Carbon disulfide	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Carbon tetrachloride	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Chlorobenzene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Chlorodibromomethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Chloroethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Chloroform	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Chloromethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
cis-1,2-Dichloroethene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
cis-1,3-dichloropropene	ND	16	U	ppbv	16	1/5/2012 9:43 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 1:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-028	**Matrix:**	Air
Client Sample ID:	VA0972		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	35	32		ppbv	16	1/5/2012 9:43 PM
Dichlorodifluoromethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Ethyl acetate	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Ethylbenzene	ND	32	U	ppbv	16	1/5/2012 9:43 PM
Heptane	32	16		ppbv	16	1/5/2012 9:43 PM
Hexachlorobutadiene	ND	32	U	ppbv	16	1/5/2012 9:43 PM
m,p-Xylene	37	32		ppbv	16	1/5/2012 9:43 PM
Methylene chloride	ND	80	U	ppbv	16	1/5/2012 9:43 PM
n-Hexane	18	32	J	ppbv	16	1/5/2012 9:43 PM
Naphthalene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
o-Xylene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Propylene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Styrene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
tert-Butyl Methyl Ether	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Tetrachloroethene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Tetrahydrofuran	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Toluene	110	16		ppbv	16	1/5/2012 9:43 PM
trans-1,2-Dichloroethene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
trans-1,3-dichloropropene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Trichloroethene	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Trichlorofluoromethane	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Vinyl acetate	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Vinyl chloride	ND	16	U	ppbv	16	1/5/2012 9:43 PM
Xylenes, Total	37	48	J	ppbv	16	1/5/2012 9:43 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	16	1/5/2012 9:43 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	2,400	1,900		µg/m³	16	1/3/2012 12:39 PM
C9-C10 Aromatic Hydrocarbons	ND	2,100	U	µg/m³	16	1/3/2012 12:39 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,000	U	µg/m³	16	1/3/2012 12:39 PM
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	16	1/3/2012 12:39 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 1:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-029	**Matrix:**	Air
Client Sample ID:	VA0973		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/6/2012 2:59 PM
Carbon Monoxide	ND	0.10	U	%	1	1/6/2012 2:59 PM
Methane	ND	0.50	U	%	1	1/6/2012 2:59 PM
Nitrogen	77	0.10		%	1	1/6/2012 2:59 PM
Oxygen	20	0.10		%	1	1/6/2012 2:59 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,1,2,2-Tetrachloroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,1,2-Trichloroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,1-Dichloroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,1-Dichloroethene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,2,4-Trichlorobenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,2,4-Trimethylbenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,2-Dibromoethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,2-Dichlorobenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,2-Dichloroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,2-Dichloropropane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,3,5-Trimethylbenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,3-Butadiene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,3-Dichlorobenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
1,4-Dichlorobenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
2-Butanone	ND	16	U	ppbv	16	1/5/2012 10:30 PM
2-Hexanone	ND	16	U	ppbv	16	1/5/2012 10:30 PM
4-Methyl-2-pentanone	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Acetone	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Benzene	31	16		ppbv	16	1/5/2012 10:30 PM
Benzyl chloride	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Bromodichloromethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Bromoform	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Bromomethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Carbon disulfide	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Carbon tetrachloride	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Chlorobenzene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Chlorodibromomethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Chloroethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Chloroform	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Chloromethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
cis-1,2-Dichloroethene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
cis-1,3-dichloropropene	ND	16	U	ppbv	16	1/5/2012 10:30 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 1:48:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-029	**Matrix:**	Air
Client Sample ID:	VA0973		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	65	32		ppbv	16	1/5/2012 10:30 PM
Dichlorodifluoromethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Ethyl acetate	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Ethylbenzene	ND	32	U	ppbv	16	1/5/2012 10:30 PM
Heptane	54	16		ppbv	16	1/5/2012 10:30 PM
Hexachlorobutadiene	ND	32	U	ppbv	16	1/5/2012 10:30 PM
m,p-Xylene	40	32		ppbv	16	1/5/2012 10:30 PM
Methylene chloride	ND	80	U	ppbv	16	1/5/2012 10:30 PM
n-Hexane	29	32	J	ppbv	16	1/5/2012 10:30 PM
Naphthalene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
o-Xylene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Propylene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Styrene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
tert-Butyl Methyl Ether	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Tetrachloroethene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Tetrahydrofuran	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Toluene	130	16		ppbv	16	1/5/2012 10:30 PM
trans-1,2-Dichloroethene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
trans-1,3-dichloropropene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Trichloroethene	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Trichlorofluoromethane	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Vinyl acetate	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Vinyl chloride	ND	16	U	ppbv	16	1/5/2012 10:30 PM
Xylenes, Total	40	48	J	ppbv	16	1/5/2012 10:30 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	16	1/5/2012 10:30 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	3,100	940		µg/m³	8	1/3/2012 2:09 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/3/2012 2:09 PM
C9-C12 Aliphatic Hydrocarbons	270	1,500	J	µg/m³	8	1/3/2012 2:09 PM
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	8	1/3/2012 2:09 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 2:43:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-030	**Matrix:**	Air
Client Sample ID:	VA0974		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.12	0.10		%	1	1/9/2012 2:37 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 2:37 PM
Methane	ND	0.50	U	%	1	1/9/2012 2:37 PM
Nitrogen	79	0.10		%	1	1/9/2012 2:37 PM
Oxygen	21	0.10		%	1	1/9/2012 2:37 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,3-Butadiene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
2-Butanone	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
2-Hexanone	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Acetone	12	8.0		ppbv	8	1/5/2012 11:17 PM
Benzene	19	8.0		ppbv	8	1/5/2012 11:17 PM
Benzyl chloride	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Bromodichloromethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Bromoform	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Bromomethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Carbon disulfide	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Carbon tetrachloride	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Chlorobenzene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Chlorodibromomethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Chloroethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Chloroform	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Chloromethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 2:43:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-030	**Matrix:**	Air
Client Sample ID:	VA0974		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	19	16		ppbv	8	1/5/2012 11:17 PM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Ethyl acetate	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Ethylbenzene	ND	16	U	ppbv	8	1/5/2012 11:17 PM
Heptane	15	8.0		ppbv	8	1/5/2012 11:17 PM
Hexachlorobutadiene	ND	16	U	ppbv	8	1/5/2012 11:17 PM
m,p-Xylene	22	16		ppbv	8	1/5/2012 11:17 PM
Methylene chloride	ND	40	U	ppbv	8	1/5/2012 11:17 PM
n-Hexane	9.8	16	J	ppbv	8	1/5/2012 11:17 PM
Naphthalene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
o-Xylene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Propylene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Styrene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Tetrachloroethene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Tetrahydrofuran	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Toluene	60	8.0		ppbv	8	1/5/2012 11:17 PM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Trichloroethene	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Vinyl acetate	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Vinyl chloride	ND	8.0	U	ppbv	8	1/5/2012 11:17 PM
Xylenes, Total	22	24	J	ppbv	8	1/5/2012 11:17 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	8	1/5/2012 11:17 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	1,600	940		µg/m³	8	1/3/2012 2:54 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/3/2012 2:54 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/3/2012 2:54 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	8	1/3/2012 2:54 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 3:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-031	**Matrix:**	Air
Client Sample ID:	VA0975		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.14	0.10		%	1	1/9/2012 3:03 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 3:03 PM
Methane	ND	0.50	U	%	1	1/9/2012 3:03 PM
Nitrogen	79	0.10		%	1	1/9/2012 3:03 PM
Oxygen	21	0.10		%	1	1/9/2012 3:03 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
2-Butanone	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
2-Hexanone	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Acetone	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Benzene	17	8.0		ppbv	8	1/6/2012 12:04 AM
Benzyl chloride	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Bromoform	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Bromomethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Carbon disulfide	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Chlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Chloroethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Chloroform	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Chloromethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 3:32:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-031	**Matrix:**	Air
Client Sample ID:	VA0975		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	21	16		ppbv	8	1/6/2012 12:04 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Ethyl acetate	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Ethylbenzene	8.1	16	J	ppbv	8	1/6/2012 12:04 AM
Heptane	20	8.0		ppbv	8	1/6/2012 12:04 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	1/6/2012 12:04 AM
m,p-Xylene	30	16		ppbv	8	1/6/2012 12:04 AM
Methylene chloride	ND	40	U	ppbv	8	1/6/2012 12:04 AM
n-Hexane	9.8	16	J	ppbv	8	1/6/2012 12:04 AM
Naphthalene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
o-Xylene	8.8	8.0		ppbv	8	1/6/2012 12:04 AM
Propylene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Styrene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Toluene	88	8.0		ppbv	8	1/6/2012 12:04 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Trichloroethene	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Vinyl acetate	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Vinyl chloride	ND	8.0	U	ppbv	8	1/6/2012 12:04 AM
Xylenes, Total	39	24		ppbv	8	1/6/2012 12:04 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8	1/6/2012 12:04 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,800	940		µg/m³	8	1/3/2012 3:39 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/3/2012 3:39 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/3/2012 3:39 PM
Surr: 4-Bromofluorobenzene	95.6	70-130		%REC	8	1/3/2012 3:39 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 9:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-032	**Matrix:**	Air
Client Sample ID:	VA0995		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.15	0.10		%	1	1/9/2012 3:20 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 3:20 PM
Methane	ND	0.50	U	%	1	1/9/2012 3:20 PM
Nitrogen	78	0.10		%	1	1/9/2012 3:20 PM
Oxygen	21	0.10		%	1	1/9/2012 3:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 2:53 PM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 2:53 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Acetone	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Benzene	98	40		ppbv	40	1/3/2012 2:53 PM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Bromoform	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Chloroform	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 2:53 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 9:14:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-032	**Matrix:**	Air
Client Sample ID:	VA0995		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	140	80		ppbv	40	1/3/2012 2:53 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 2:53 PM
Heptane	56	40		ppbv	40	1/3/2012 2:53 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 2:53 PM
m,p-Xylene	65	80	J	ppbv	40	1/3/2012 2:53 PM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 2:53 PM
n-Hexane	60	80	J	ppbv	40	1/3/2012 2:53 PM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
o-Xylene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Propylene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Styrene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Toluene	170	40		ppbv	40	1/3/2012 2:53 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 2:53 PM
Xylenes, Total	65	120	J	ppbv	40	1/3/2012 2:53 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	40	1/3/2012 2:53 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	6,600	940		µg/m³	8	1/4/2012 4:27 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 4:27 PM
C9-C12 Aliphatic Hydrocarbons	470	1,500	J	µg/m³	8	1/4/2012 4:27 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	8	1/4/2012 4:27 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 9:49:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-033	**Matrix:**	Air
Client Sample ID:	VA0996		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.18	0.10		%	1	1/9/2012 3:40 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 3:40 PM
Methane	ND	0.50	U	%	1	1/9/2012 3:40 PM
Nitrogen	79	0.10		%	1	1/9/2012 3:40 PM
Oxygen	21	0.10		%	1	1/9/2012 3:40 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 3:38 PM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 3:38 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Acetone	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Benzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Bromoform	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Chloroform	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 3:38 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 9:49:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-033	**Matrix:**	Air
Client Sample ID:	VA0996		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	78	80	J	ppbv	40	1/3/2012 3:38 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 3:38 PM
Heptane	58	40		ppbv	40	1/3/2012 3:38 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 3:38 PM
m,p-Xylene	61	80	J	ppbv	40	1/3/2012 3:38 PM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 3:38 PM
n-Hexane	46	80	J	ppbv	40	1/3/2012 3:38 PM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
o-Xylene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Propylene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Styrene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Toluene	130	40		ppbv	40	1/3/2012 3:38 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 3:38 PM
Xylenes, Total	61	120	J	ppbv	40	1/3/2012 3:38 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	40	1/3/2012 3:38 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,400	940		µg/m³	8	1/4/2012 5:21 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 5:21 PM
C9-C12 Aliphatic Hydrocarbons	520	1,500	J	µg/m³	8	1/4/2012 5:21 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	8	1/4/2012 5:21 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 10:25:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-034	**Matrix:**	Air
Client Sample ID:	VA0997		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.11	0.10		%	1	1/9/2012 3:59 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 3:59 PM
Methane	ND	0.50	U	%	1	1/9/2012 3:59 PM
Nitrogen	79	0.10		%	1	1/9/2012 3:59 PM
Oxygen	21	0.10		%	1	1/9/2012 3:59 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 4:23 PM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 4:23 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Acetone	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Benzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Bromoform	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Chloroform	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 4:23 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 10:25:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-034	**Matrix:**	Air
Client Sample ID:	VA0997		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	120	80		ppbv	40	1/3/2012 4:23 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 4:23 PM
Heptane	82	40		ppbv	40	1/3/2012 4:23 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 4:23 PM
m,p-Xylene	59	80	J	ppbv	40	1/3/2012 4:23 PM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 4:23 PM
n-Hexane	52	80	J	ppbv	40	1/3/2012 4:23 PM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
o-Xylene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Propylene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Styrene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Toluene	130	40		ppbv	40	1/3/2012 4:23 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 4:23 PM
Xylenes, Total	59	120	J	ppbv	40	1/3/2012 4:23 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	40	1/3/2012 4:23 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	6,300	940		µg/m³	8	1/4/2012 6:06 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 6:06 PM
C9-C12 Aliphatic Hydrocarbons	480	1,500	J	µg/m³	8	1/4/2012 6:06 PM
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	8	1/4/2012 6:06 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 11:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-035	**Matrix:**	Air
Client Sample ID:	VA0998		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.11	0.10		%	1	1/9/2012 4:16 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 4:16 PM
Methane	ND	0.50	U	%	1	1/9/2012 4:16 PM
Nitrogen	79	0.10		%	1	1/9/2012 4:16 PM
Oxygen	21	0.10		%	1	1/9/2012 4:16 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
2-Butanone	ND	40	U	ppbv	40	1/3/2012 5:09 PM
2-Hexanone	ND	40	U	ppbv	40	1/3/2012 5:09 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Acetone	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Benzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Benzyl chloride	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Bromoform	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Bromomethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Carbon disulfide	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Chlorobenzene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Chloroethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Chloroform	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Chloromethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 5:09 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 11:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-035	**Matrix:**	Air
Client Sample ID:	VA0998		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	78	80	J	ppbv	40	1/3/2012 5:09 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Ethyl acetate	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Ethylbenzene	ND	80	U	ppbv	40	1/3/2012 5:09 PM
Heptane	75	40		ppbv	40	1/3/2012 5:09 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/3/2012 5:09 PM
m,p-Xylene	53	80	J	ppbv	40	1/3/2012 5:09 PM
Methylene chloride	ND	200	U	ppbv	40	1/3/2012 5:09 PM
n-Hexane	51	80	J	ppbv	40	1/3/2012 5:09 PM
Naphthalene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
o-Xylene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Propylene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Styrene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Toluene	140	40		ppbv	40	1/3/2012 5:09 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Trichloroethene	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Vinyl acetate	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Vinyl chloride	ND	40	U	ppbv	40	1/3/2012 5:09 PM
Xylenes, Total	53	120	J	ppbv	40	1/3/2012 5:09 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	40	1/3/2012 5:09 PM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	4,900	940		µg/m³	8	1/4/2012 6:49 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 6:49 PM
C9-C12 Aliphatic Hydrocarbons	980	1,500	J	µg/m³	8	1/4/2012 6:49 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	8	1/4/2012 6:49 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 11:44:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-036	**Matrix:**	Air
Client Sample ID:	VA0999		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.098	0.10	J	%	1	1/9/2012 4:38 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 4:38 PM
Methane	ND	0.50	U	%	1	1/9/2012 4:38 PM
Nitrogen	79	0.10		%	1	1/9/2012 4:38 PM
Oxygen	21	0.10		%	1	1/9/2012 4:38 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
2-Butanone	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
2-Hexanone	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Acetone	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Benzene	120	8.0		ppbv	8	1/6/2012 3:15 AM
Benzyl chloride	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Bromoform	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Bromomethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Carbon disulfide	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Chlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Chloroethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Chloroform	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Chloromethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 11:44:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-036	**Matrix:**	Air
Client Sample ID:	VA0999		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	32	16		ppbv	8	1/6/2012 3:15 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Ethyl acetate	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Ethylbenzene	ND	16	U	ppbv	8	1/6/2012 3:15 AM
Heptane	8.8	8.0		ppbv	8	1/6/2012 3:15 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	1/6/2012 3:15 AM
m,p-Xylene	8.2	16	J	ppbv	8	1/6/2012 3:15 AM
Methylene chloride	ND	40	U	ppbv	8	1/6/2012 3:15 AM
n-Hexane	11	16	J	ppbv	8	1/6/2012 3:15 AM
Naphthalene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
o-Xylene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Propylene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Styrene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Toluene	49	8.0		ppbv	8	1/6/2012 3:15 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Trichloroethene	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Vinyl acetate	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Vinyl chloride	ND	8.0	U	ppbv	8	1/6/2012 3:15 AM
Xylenes, Total	8.2	24	J	ppbv	8	1/6/2012 3:15 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	8	1/6/2012 3:15 AM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	1,700	940		µg/m³	8	1/4/2012 7:33 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 7:33 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/4/2012 7:33 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	8	1/4/2012 7:33 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 11:44:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-037	**Matrix:**	Air
Client Sample ID:	VA1000		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.11	0.10		%	1	1/9/2012 4:55 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 4:55 PM
Methane	ND	0.50	U	%	1	1/9/2012 4:55 PM
Nitrogen	78	0.10		%	1	1/9/2012 4:55 PM
Oxygen	21	0.10		%	1	1/9/2012 4:55 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,1,2,2-Tetrachloroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,1,2-Trichloroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,1-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,1-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,2,4-Trichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,2,4-Trimethylbenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,2-Dibromoethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,2-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,2-Dichloroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,2-Dichloropropane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,3,5-Trimethylbenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,3-Butadiene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,3-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
1,4-Dichlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
2-Butanone	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
2-Hexanone	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
4-Methyl-2-pentanone	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Acetone	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Benzene	110	8.0		ppbv	8	1/6/2012 4:02 AM
Benzyl chloride	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Bromodichloromethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Bromoform	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Bromomethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Carbon disulfide	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Carbon tetrachloride	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Chlorobenzene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Chlorodibromomethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Chloroethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Chloroform	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Chloromethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
cis-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
cis-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 11:44:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-037	**Matrix:**	Air
Client Sample ID:	VA1000		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	38	16		ppbv	8	1/6/2012 4:02 AM
Dichlorodifluoromethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Ethyl acetate	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Ethylbenzene	ND	16	U	ppbv	8	1/6/2012 4:02 AM
Heptane	17	8.0		ppbv	8	1/6/2012 4:02 AM
Hexachlorobutadiene	ND	16	U	ppbv	8	1/6/2012 4:02 AM
m,p-Xylene	12	16	J	ppbv	8	1/6/2012 4:02 AM
Methylene chloride	ND	40	U	ppbv	8	1/6/2012 4:02 AM
n-Hexane	15	16	J	ppbv	8	1/6/2012 4:02 AM
Naphthalene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
o-Xylene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Propylene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Styrene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
tert-Butyl Methyl Ether	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Tetrachloroethene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Tetrahydrofuran	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Toluene	62	8.0		ppbv	8	1/6/2012 4:02 AM
trans-1,2-Dichloroethene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
trans-1,3-dichloropropene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Trichloroethene	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Trichlorofluoromethane	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Vinyl acetate	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Vinyl chloride	ND	8.0	U	ppbv	8	1/6/2012 4:02 AM
Xylenes, Total	12	24	J	ppbv	8	1/6/2012 4:02 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8	1/6/2012 4:02 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	2,200	940		µg/m³	8	1/4/2012 8:17 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100	U	µg/m³	8	1/4/2012 8:17 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500	U	µg/m³	8	1/4/2012 8:17 PM
Surr: 4-Bromofluorobenzene	99.0	70-130		%REC	8	1/4/2012 8:17 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-038	**Matrix:**	Air
Client Sample ID:	VA1001		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.14	0.10		%	1	1/9/2012 5:11 PM
Carbon Monoxide	ND	0.10	U	%	1	1/9/2012 5:11 PM
Methane	ND	0.50	U	%	1	1/9/2012 5:11 PM
Nitrogen	78	0.10		%	1	1/9/2012 5:11 PM
Oxygen	20	0.10		%	1	1/9/2012 5:11 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,1-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,1-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,2,4-Trimethylbenzene	57	40		ppbv	40	1/5/2012 3:22 PM
1,2-Dibromoethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,2-Dichloroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,2-Dichloropropane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,3,5-Trimethylbenzene	42	40		ppbv	40	1/5/2012 3:22 PM
1,3-Butadiene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
2-Butanone	ND	40	U	ppbv	40	1/5/2012 3:22 PM
2-Hexanone	ND	40	U	ppbv	40	1/5/2012 3:22 PM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Acetone	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Benzene	12,000	400		ppbv	400	1/10/2012 10:04 PM
Benzyl chloride	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Bromodichloromethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Bromoform	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Bromomethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Carbon disulfide	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Carbon tetrachloride	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Chlorobenzene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Chlorodibromomethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Chloroethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Chloroform	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Chloromethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 3:22 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/14/2011 12:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1112696-038	**Matrix:**	Air
Client Sample ID:	VA1001		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,900	80		ppbv	40	1/5/2012 3:22 PM
Dichlorodifluoromethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Ethyl acetate	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Ethylbenzene	490	80		ppbv	40	1/5/2012 3:22 PM
Heptane	360	40		ppbv	40	1/5/2012 3:22 PM
Hexachlorobutadiene	ND	80	U	ppbv	40	1/5/2012 3:22 PM
m,p-Xylene	890	80		ppbv	40	1/5/2012 3:22 PM
Methylene chloride	ND	200	U	ppbv	40	1/5/2012 3:22 PM
n-Hexane	690	80		ppbv	40	1/5/2012 3:22 PM
Naphthalene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
o-Xylene	410	40		ppbv	40	1/5/2012 3:22 PM
Propylene	40	40		ppbv	40	1/5/2012 3:22 PM
Styrene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Tetrachloroethene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Tetrahydrofuran	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Toluene	10,000	400		ppbv	400	1/10/2012 10:04 PM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Trichloroethene	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Trichlorofluoromethane	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Vinyl acetate	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Vinyl chloride	ND	40	U	ppbv	40	1/5/2012 3:22 PM
Xylenes, Total	1,300	120		ppbv	40	1/5/2012 3:22 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	40	1/5/2012 3:22 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	38,000	4,700		µg/m³	40	1/5/2012 1:07 PM
C9-C10 Aromatic Hydrocarbons	1,500	5,300	J	µg/m³	40	1/5/2012 1:07 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	U	µg/m³	40	1/5/2012 1:07 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	40	1/5/2012 1:07 PM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-039	**Matrix:**	Air
Client Sample ID:	VA8062-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,1,2,2-Tetrachloroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,1,2-Trichloroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,1-Dichloroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,1-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,2,4-Trichlorobenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,2,4-Trimethylbenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,2-Dibromoethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,2-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,2-Dichloroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,2-Dichloropropane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,3,5-Trimethylbenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,3-Butadiene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,3-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
1,4-Dichlorobenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
2-Butanone	ND	40	U	ppbv	40	12/31/2011 11:49 AM
2-Hexanone	ND	40	U	ppbv	40	12/31/2011 11:49 AM
4-Methyl-2-pentanone	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Acetone	60	40		ppbv	40	12/31/2011 11:49 AM
Benzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Benzyl chloride	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Bromodichloromethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Bromoform	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Bromomethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Carbon disulfide	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Carbon tetrachloride	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Chlorobenzene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Chlorodibromomethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Chloroethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Chloroform	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Chloromethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
cis-1,2-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
cis-1,3-dichloropropene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Cyclohexane	190	80		ppbv	40	12/31/2011 11:49 AM
Dichlorodifluoromethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Ethyl acetate	74	40	m	ppbv	40	12/31/2011 11:49 AM
Ethylbenzene	ND	80	U	ppbv	40	12/31/2011 11:49 AM
Heptane	95	40		ppbv	40	12/31/2011 11:49 AM
Hexachlorobutadiene	ND	80	U	ppbv	40	12/31/2011 11:49 AM
m,p-Xylene	ND	80	U	ppbv	40	12/31/2011 11:49 AM
Methylene chloride	ND	200	U	ppbv	40	12/31/2011 11:49 AM

RTI Laboratories - Analytical Report

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	12/12/2011 8:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1112696-039	**Matrix:**	Air
Client Sample ID:	VA8062-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	ND	80	U	ppbv	40	12/31/2011 11:49 AM
Naphthalene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
o-Xylene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Propylene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Styrene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
tert-Butyl Methyl Ether	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Tetrachloroethene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Tetrahydrofuran	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Toluene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
trans-1,2-Dichloroethene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
trans-1,3-dichloropropene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Trichloroethene	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Trichlorofluoromethane	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Vinyl acetate	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Vinyl chloride	ND	40	U	ppbv	40	12/31/2011 11:49 AM
Xylenes, Total	ND	120	U	ppbv	40	12/31/2011 11:49 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	40	12/31/2011 11:49 AM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45120

Sample ID:	Blank 122211 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45120	
Client ID:	PBW	Batch ID:	R45120	TestNo:	MA_APH			Analysis Date:	12/22/2011	SeqNo:	887797	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	86		89.50		95.7	70	130				

Sample ID:	1112696-028Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45120	
Client ID:	VA0972	Batch ID:	R45120	TestNo:	MA_APH			Analysis Date:	12/22/2011	SeqNo:	887800	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	690,000		716,000		96.1	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45142

Sample ID:	Blank 122711 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45142	
Client ID:	PBW	Batch ID:	R45142	TestNo:	MA_APH			Analysis Date:	12/27/2011	SeqNo:	888135	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	87		89.50		97.2	70	130				

Sample ID:	1112696-031Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45142	
Client ID:	VA0975	Batch ID:	R45142	TestNo:	MA_APH			Analysis Date:	12/27/2011	SeqNo:	888142	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	680,000		716,000		94.3	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45164

Sample ID:	Blank 122811 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45164	
Client ID:	PBW	Batch ID:	R45164	TestNo:	MA_APH			Analysis Date:	12/28/2011	SeqNo:	888405	

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	81		89.50		90.8	70	130				

Sample ID:	1112696-026Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45164	
Client ID:	VA0902	Batch ID:	R45164	TestNo:	MA_APH			Analysis Date:	12/28/2011	SeqNo:	888409	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000						2,598,000	6.78	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	670,000		716,000		93.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	MBLK VOA1 123011	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189
Client ID:	PBW	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889186

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#: 1112696

Date Reported: 1/25/2012

Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	MBLK VOA1 123011	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189
Client ID:	PBW	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889186

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		113	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	1112398-001Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189
Client ID:	ZZZZZZ	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889189

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	82	40						84.80	3.85	25	
Benzyl chloride	ND	40						0	0	25	U
Bromodichloromethane	ND	40						0	0	25	U
Bromoform	ND	40						0	0	25	U
Bromomethane	ND	40						0	0	25	U
Carbon disulfide	ND	40						0	0	25	U
Carbon tetrachloride	ND	40						0	0	25	U
Chlorobenzene	ND	40						0	0	25	U
Chlorodibromomethane	ND	40						0	0	25	U
Chloroethane	ND	40						0	0	25	U
Chloroform	ND	40						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45189

Sample ID:	1112398-001Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45189	
Client ID:	ZZZZZZ	Batch ID:	R45189	TestNo:	TO-15			Analysis Date:	12/31/2011	SeqNo:	889189	

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	220	80						228.8	4.47	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	49	80						48.40	0.823	25	J
Heptane	240	40						242.0	2.51	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	140	80						138.4	1.15	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	120	80						128.4	5.11	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	44	40						44.00	0	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	540	40						545.2	1.48	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	180	120						182.4	0.873	25	
Surr: 4-Bromofluorobenzene	570		500.0		114	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	MBLK VOA1 010212	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190
Client ID:	PBW	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889230

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#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	MBLK VOA1 010212	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190
Client ID:	PBW	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889230

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		115	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	1112398-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190	
Client ID:	ZZZZZZ	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889385	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	16						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	16						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	16						0	0	25	U
1,1,2-Trichloroethane	ND	16						0	0	25	U
1,1-Dichloroethane	ND	16						0	0	25	U
1,1-Dichloroethene	ND	16						0	0	25	U
1,2,4-Trichlorobenzene	ND	16						0	0	25	U
1,2,4-Trimethylbenzene	ND	16						0	0	25	U
1,2-Dibromoethane	ND	16						0	0	25	U
1,2-Dichlorobenzene	ND	16						0	0	25	U
1,2-Dichloroethane	ND	16						0	0	25	U
1,2-Dichloropropane	ND	16						0	0	25	U
1,3,5-Trimethylbenzene	ND	16						0	0	25	U
1,3-Butadiene	ND	16						0	0	25	U
1,3-Dichlorobenzene	ND	16						0	0	25	U
1,4-Dichlorobenzene	ND	16						0	0	25	U
2-Butanone	ND	16						0	0	25	U
2-Hexanone	ND	16						0	0	25	U
4-Methyl-2-pentanone	ND	16						0	0	25	U
Acetone	ND	16						0	0	25	U
Benzene	35	16						26.56	27.5	25	R
Benzyl chloride	ND	16						0	0	25	U
Bromodichloromethane	ND	16						0	0	25	U
Bromoform	ND	16						0	0	25	U
Bromomethane	ND	16						0	0	25	U
Carbon disulfide	ND	16						0	0	25	U
Carbon tetrachloride	ND	16						0	0	25	U
Chlorobenzene	ND	16						0	0	25	U
Chlorodibromomethane	ND	16						0	0	25	U
Chloroethane	ND	16						0	0	25	U
Chloroform	ND	16						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45190

Sample ID:	1112398-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45190	
Client ID:	ZZZZZZ	Batch ID:	R45190	TestNo:	TO-15			Analysis Date:	1/3/2012	SeqNo:	889385	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	16						0	0	25	U
cis-1,2-Dichloroethene	ND	16						0	0	25	U
cis-1,3-dichloropropene	ND	16						0	0	25	U
Cyclohexane	67	32						54.08	20.7	25	
Dichlorodifluoromethane	ND	16						0	0	25	U
Ethyl acetate	ND	16						0	0	25	U
Ethylbenzene	ND	32						0	0	25	U
Heptane	52	16						46.88	9.74	25	
Hexachlorobutadiene	ND	32						0	0	25	U
m,p-Xylene	37	32						30.08	20.1	25	
Methylene chloride	ND	80						0	0	25	U
n-Hexane	48	32						38.40	22.9	25	
Naphthalene	ND	16						0	0	25	U
o-Xylene	ND	16						0	0	25	U
Propylene	ND	16						0	0	25	U
Styrene	ND	16						0	0	25	U
tert-Butyl Methyl Ether	ND	16						0	0	25	U
Tetrachloroethene	ND	16						0	0	25	U
Tetrahydrofuran	ND	16						0	0	25	U
Toluene	140	16						120.8	16.3	25	
trans-1,2-Dichloroethene	ND	16						0	0	25	U
trans-1,3-dichloropropene	ND	16						0	0	25	U
Trichloroethene	ND	16						0	0	25	U
Trichlorofluoromethane	ND	16						0	0	25	U
Vinyl acetate	ND	16						0	0	25	U
Vinyl chloride	ND	16						0	0	25	U
Xylenes, Total	37	48						30.08	20.1	25	J
Surr: 4-Bromofluorobenzene	220		200.0		110	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45192

Sample ID:	Blank 010212 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45192	
Client ID:	PBW	Batch ID:	R45192	TestNo:	MA_APH			Analysis Date:	1/2/2012	SeqNo:	889285	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	83		89.50		92.5	70	130				

Sample ID:	1112696-016Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45192	
Client ID:	VA0740	Batch ID:	R45192	TestNo:	MA_APH			Analysis Date:	1/2/2012	SeqNo:	889292	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	680,000		716,000		95.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45213

Sample ID:	Blank 010312 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45213	
Client ID:	PBW	Batch ID:	R45213	TestNo:	MA_APH			Analysis Date:	1/3/2012	SeqNo:	889623	

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	81		89.50		90.0	70	130				

Sample ID:	1112696-028ADUP2	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45213	
Client ID:	VA0972	Batch ID:	R45213	TestNo:	MA_APH			Analysis Date:	1/3/2012	SeqNo:	889645	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	2,400	1,900						2,373	0.0270	30	
C9-C10 Aromatic Hydrocarbons	ND	2,100						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	3,000						0	0	30	U
Surr: 4-Bromofluorobenzene	1,400		1,432		94.4	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45282

Sample ID:	**Blank 010412 VOA**	Samp Type:	**MBLK**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45282**	
Client ID:	**PBW**	Batch ID:	**R45282**	TestNo:	**MA_APH**			Analysis Date:	**1/4/2012**	SeqNo:	**890830**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	68	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	81		89.50		91.0	70	130				

Sample ID:	**1112848-003Adup**	Samp Type:	**DUP**	Test Code:	**MA_APH**	Units:	**µg/m³**	Prep Date:		RunNo:	**45282**	
Client ID:	**ZZZZZZ**	Batch ID:	**R45282**	TestNo:	**MA_APH**			Analysis Date:	**1/4/2012**	SeqNo:	**890843**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	940,000						0	0	30	U
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	690,000		716,000		96.3	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012

Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45313

Sample ID:	Blank VOA1 01051	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45313
Client ID:	PBW	Batch ID:	R45313	TestNo:	TO-15			Analysis Date:	1/5/2012	SeqNo:	891420

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#: 1112696

Date Reported: 1/25/2012

Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45313

Sample ID:	**Blank VOA1 01051**	Samp Type:	**MBLK**	Test Code:	**EPA_TO15**	Units:	**ppbv**	Prep Date:		RunNo:	**45313**
Client ID:	**PBW**	Batch ID:	**R45313**	TestNo:	**TO-15**			Analysis Date:	**1/5/2012**	SeqNo:	**891420**

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		109	70	130				

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45313

Sample ID:	1112696-016ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45313
Client ID:	VA0740	Batch ID:	R45313	TestNo:	TO-15			Analysis Date:	1/6/2012	SeqNo:	891437

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	330	40						364.8	9.66	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#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45313

Sample ID:	1112696-016ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45313
Client ID:	VA0740	Batch ID:	R45313	TestNo:	TO-15			Analysis Date:	1/6/2012	SeqNo:	891437

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	450	80						506.4	11.8	25	
Dichlorodifluoromethane	ND	40						0	0	25	U
Ethyl acetate	ND	40						0	0	25	U
Ethylbenzene	48	80						48.00	0.830	25	J
Heptane	250	40						266.0	7.33	25	
Hexachlorobutadiene	ND	80						0	0	25	U
m,p-Xylene	160	80						158.8	0.753	25	
Methylene chloride	ND	200						0	0	25	U
n-Hexane	240	80						271.6	12.9	25	
Naphthalene	ND	40						0	0	25	U
o-Xylene	44	40						43.20	1.83	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	1,100	40						1,052	0.114	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	200	120						202.0	0.985	25	
Surr: 4-Bromofluorobenzene	520		500.0		104	70	130		0	25	

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WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45314

Sample ID:	Blank 010512 VOA	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45314	
Client ID:	PBW	Batch ID:	R45314	TestNo:	MA_APH			Analysis Date:	1/5/2012	SeqNo:	891465	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									U
C9-C10 Aromatic Hydrocarbons	ND	130									U
C9-C12 Aliphatic Hydrocarbons	ND	190									U
Surr: 4-Bromofluorobenzene	83		89.50		92.8	70	130				

Sample ID:	1112848-009Adup	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	45314	
Client ID:	ZZZZZZ	Batch ID:	R45314	TestNo:	MA_APH			Analysis Date:	1/5/2012	SeqNo:	891468	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	440,000	940,000						434,400	1.06	30	J
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	U
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	U
Surr: 4-Bromofluorobenzene	700,000		716,000		97.5	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45328

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45328	
Client ID:	PBW	Batch ID:	R45328	TestNo:	ASTM-D2504			Analysis Date:	1/5/2012	SeqNo:	892169	

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	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45328	
Client ID:	LCSW	Batch ID:	R45328	TestNo:	ASTM-D2504			Analysis Date:	1/5/2012	SeqNo:	892171	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	103	70	130	2.583	0.194	0	
Carbon Monoxide	2.7	0.10	2.500	0	107	70	130	2.685	0.411	0	
Methane	2.1	0.50	2.000	0	104	70	130	2.078	0.0962	0	
Nitrogen	2.7	0.10	2.500	0	106	70	130	2.703	1.83	0	
Oxygen	2.5	0.10	2.500	0	98.4	70	130	2.476	0.648	0	

Sample ID:	1112696-010bDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45328	
Client ID:	VA0712	Batch ID:	R45328	TestNo:	ASTM-D2504			Analysis Date:	1/5/2012	SeqNo:	892183	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.39	0.10						0.4100	4.74	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						79.17	0.212	20	
Oxygen	19	0.10						19.02	0.142	20	

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WO#: 1112696

Date Reported: 1/25/2012

Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45329

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45329	
Client ID:	PBW	Batch ID:	R45329	TestNo:	ASTM-D2504			Analysis Date:	1/6/2012	SeqNo:	891828	

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	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45329	
Client ID:	LCSW	Batch ID:	R45329	TestNo:	ASTM-D2504			Analysis Date:	1/6/2012	SeqNo:	891831	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	103	70	130	2.538	1.10	0	
Carbon Monoxide	2.7	0.10	2.500	0	106	70	130	2.645	0.490	0	
Methane	2.1	0.50	2.000	0	103	70	130	2.059	0.194	0	
Nitrogen	2.7	0.10	2.500	0	107	70	130	2.710	0.890	0	
Oxygen	2.4	0.10	2.500	0	97.9	70	130	2.449	0.0408	0	

Sample ID:	1112696-029bDUP	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45329	
Client ID:	VA0973	Batch ID:	R45329	TestNo:	ASTM-D2504			Analysis Date:	1/6/2012	SeqNo:	891846	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.11	0.10						0.1200	8.70	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	78	0.10						77.10	0.592	20	
Oxygen	21	0.10						20.45	0.556	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45354

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45354	
Client ID:	PBW	Batch ID:	R45354	TestNo:	ASTM-D2504			Analysis Date:	1/9/2012	SeqNo:	892223	

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	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45354	
Client ID:	LCSW	Batch ID:	R45354	TestNo:	ASTM-D2504			Analysis Date:	1/9/2012	SeqNo:	892225	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.6	0.10	2.500	0	105	70	130	2.658	1.59	0	
Carbon Monoxide	2.7	0.10	2.500	0	108	70	130	2.755	2.13	0	
Methane	2.1	0.50	2.000	0	104	70	130	2.104	0.811	0	
Nitrogen	2.7	0.10	2.500	0	109	70	130	2.800	2.83	0	
Oxygen	2.5	0.10	2.500	0	99.0	70	130	2.518	1.72	0	

Sample ID:	1112696-038bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	45354	
Client ID:	VA1001	Batch ID:	R45354	TestNo:	ASTM-D2504			Analysis Date:	1/9/2012	SeqNo:	892236	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.14	0.10						0.1440	4.98	20	
Carbon Monoxide	ND	0.10						0	0	20	U
Methane	ND	0.50						0	0	20	U
Nitrogen	79	0.10						78.41	0.667	20	
Oxygen	21	0.10						20.48	1.53	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45391

Sample ID:	Blank VOA1 01101	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45391
Client ID:	PBW	Batch ID:	R45391	TestNo:	TO-15			Analysis Date:	1/10/2012	SeqNo:	892793

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#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45391

Sample ID:	Blank VOA1 01101	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45391
Client ID:	PBW	Batch ID:	R45391	TestNo:	TO-15			Analysis Date:	1/10/2012	SeqNo:	892793

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		112	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45391

Sample ID:	1112696-018Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45391
Client ID:	VA0742	Batch ID:	R45391	TestNo:	TO-15			Analysis Date:	1/11/2012	SeqNo:	892797

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	80						0	0	25	U
1,1,2,2-Tetrachloroethane	ND	80						0	0	25	U
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	80						0	0	25	U
1,1,2-Trichloroethane	ND	80						0	0	25	U
1,1-Dichloroethane	ND	80						0	0	25	U
1,1-Dichloroethene	ND	80						0	0	25	U
1,2,4-Trichlorobenzene	ND	80						0	0	25	U
1,2,4-Trimethylbenzene	ND	80						0	0	25	U
1,2-Dibromoethane	ND	80						0	0	25	U
1,2-Dichlorobenzene	ND	80						0	0	25	U
1,2-Dichloroethane	ND	80						0	0	25	U
1,2-Dichloropropane	ND	80						0	0	25	U
1,3,5-Trimethylbenzene	ND	80						0	0	25	U
1,3-Butadiene	ND	80						0	0	25	U
1,3-Dichlorobenzene	ND	80						0	0	25	U
1,4-Dichlorobenzene	ND	80						0	0	25	U
2-Butanone	ND	80						0	0	25	U
2-Hexanone	ND	80						0	0	25	U
4-Methyl-2-pentanone	ND	80						0	0	25	U
Acetone	ND	80						100.8	200	25	RU
Benzene	1,300	80						1,231	7.38	25	
Benzyl chloride	ND	80						0	0	25	U
Bromodichloromethane	ND	80						0	0	25	U
Bromoform	ND	80						0	0	25	U
Bromomethane	ND	80						0	0	25	U
Carbon disulfide	ND	80						0	0	25	U
Carbon tetrachloride	ND	80						0	0	25	U
Chlorobenzene	ND	80						0	0	25	U
Chlorodibromomethane	ND	80						0	0	25	U
Chloroethane	ND	80						0	0	25	U
Chloroform	ND	80						0	0	25	U

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45391

Sample ID:	1112696-018Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45391
Client ID:	VA0742	Batch ID:	R45391	TestNo:	TO-15			Analysis Date:	1/11/2012	SeqNo:	892797

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	80						0	0	25	U
cis-1,2-Dichloroethene	ND	80						0	0	25	U
cis-1,3-dichloropropene	ND	80						0	0	25	U
Cyclohexane	890	160						859.2	3.39	25	
Dichlorodifluoromethane	ND	80						0	0	25	U
Ethyl acetate	ND	80						0	0	25	U
Ethylbenzene	ND	160						0	0	25	U
Heptane	130	80						125.6	1.89	25	
Hexachlorobutadiene	ND	160						0	0	25	U
m,p-Xylene	ND	160						0	0	25	U
Methylene chloride	780	400						813.6	4.52	25	
n-Hexane	850	160						816.0	3.75	25	
Naphthalene	ND	80						0	0	25	U
o-Xylene	ND	80						0	0	25	U
Propylene	ND	80						0	0	25	U
Styrene	ND	80						0	0	25	U
tert-Butyl Methyl Ether	ND	80						0	0	25	U
Tetrachloroethene	ND	80						0	0	25	U
Tetrahydrofuran	ND	80						0	0	25	U
Toluene	300	80						290.4	1.64	25	
trans-1,2-Dichloroethene	ND	80						0	0	25	U
trans-1,3-dichloropropene	ND	80						0	0	25	U
Trichloroethene	ND	80						0	0	25	U
Trichlorofluoromethane	ND	80						0	0	25	U
Vinyl acetate	ND	80						0	0	25	U
Vinyl chloride	ND	80						0	0	25	U
Xylenes, Total	ND	240						0	0	25	U
Surr: 4-Bromofluorobenzene	1,100		1,000		115	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45481

Sample ID:	MBLK VOA1 011112	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45481
Client ID:	PBW	Batch ID:	R45481	TestNo:	TO-15			Analysis Date:	1/12/2012	SeqNo:	894167

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#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45481

Sample ID:	MBLK VOA1 011112	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45481
Client ID:	PBW	Batch ID:	R45481	TestNo:	TO-15			Analysis Date:	1/12/2012	SeqNo:	894167

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		112	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45481

Sample ID:	1112696-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45481
Client ID:	VA0712	Batch ID:	R45481	TestNo:	TO-15			Analysis Date:	1/12/2012	SeqNo:	894169

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	110,000	8,000						132,700	20.8	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#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R45481

Sample ID: **1112696-010ADUP** Samp Type: **DUP** Test Code: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **45481**

Client ID: **VA0712** Batch ID: **R45481** TestNo: **TO-15** Analysis Date: **1/12/2012** SeqNo: **894169**

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	91,000	16,000						105,300	14.6	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	34,000	8,000						36,640	8.42	25	
Hexachlorobutadiene	ND	16,000						0	0	25	U
m,p-Xylene	8,200	16,000						9,120	10.1	25	J
Methylene chloride	ND	40,000						0	0	25	U
n-Hexane	81,000	16,000						96,080	17.4	25	
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	140,000	8,000						161,500	16.2	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	8,200	24,000						9,120	10.1	25	J
Surr: 4-Bromofluorobenzene	120,000		100,000		120	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1112696

Date Reported: 1/25/2012
Revision v3

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R45539

Sample ID:	MBLK VOA1 011712	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45539	
Client ID:	PBW	Batch ID:	R45539	TestNo:	TO-15			Analysis Date:	1/17/2012	SeqNo:	894977	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Toluene		ND	1.0									U
Surr: 4-Bromofluorobenzene		13		12.50		108	70	130				

Sample ID:	SUMMA RTI-048 CC	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45539	
Client ID:	PBW	Batch ID:	R45539	TestNo:	TO-15			Analysis Date:	1/17/2012	SeqNo:	894978	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Toluene		ND	1.0									U
Surr: 4-Bromofluorobenzene		14		12.50		110	70	130				

Sample ID:	1201023-001Adup	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	45539	
Client ID:	ZZZZZZ	Batch ID:	R45539	TestNo:	TO-15			Analysis Date:	1/17/2012	SeqNo:	894982	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Toluene		63,000	20,000						49,200	24.9	25	
Surr: 4-Bromofluorobenzene		290,000		250,000		118	70	130		0	25	

RTI Laboratories

Run ID: VOA1_111230A **Run No.:** 45189

Analytical Run Date: 12/30/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

Run Comments: For 1112696-012a the vent tip on the bottle was unscrewed when we received it. Sample was at ambient temperature. Was instructed to fill with nitrogen and run accordingly.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 123011	BFB_TUNE	TUNE	R45189	12/30/2011 10:52:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 3:51:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 6:12:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 7:00:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 7:49:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 8:36:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 9:23:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R45189	12/30/2011 10:14:00 PM	Robert Lynch		
BFB2 VOA1 123011	BFB_TUNE	TUNE	R45189	12/30/2011 11:00:00 PM	Robert Lynch		
ICV VOA1 123011	EPA_TO15	ICV	R45189	12/31/2011 12:35:00 AM	Robert Lynch		
RLVS VOA1 123011	EPA_TO15	RLVS	R45189	12/31/2011 1:23:00 AM	Robert Lynch		
MBLK VOA1 123011	EPA_TO15	MBLK	R45189	12/31/2011 2:17:00 AM	Charles O`Bryan		
1112398-011A	EPA_TO15	SAMP	R45189	12/31/2011 3:53:00 AM	Robert Lynch		
1112398-001A	EPA_TO15	SAMP	R45189	12/31/2011 4:39:00 AM	Robert Lynch		
1112398-001Adup	EPA_TO15	DUP	R45189	12/31/2011 5:26:00 AM	Charles O`Bryan		
1112398-017A	EPA_TO15	SAMP	R45189	12/31/2011 6:16:00 AM	Robert Lynch		
1112398-018A	EPA_TO15	SAMP	R45189	12/31/2011 7:05:00 AM	Robert Lynch		
1112398-026A	EPA_TO15	SAMP	R45189	12/31/2011 7:52:00 AM	Robert Lynch		
1112398-021A	EPA_TO15	SAMP	R45189	12/31/2011 8:39:00 AM	Robert Lynch		
1112398-022A	EPA_TO15	SAMP	R45189	12/31/2011 9:27:00 AM	Robert Lynch		
1112398-023A	EPA_TO15	SAMP	R45189	12/31/2011 10:14:00 AM	Robert Lynch		
1112398-024A	EPA_TO15	SAMP	R45189	12/31/2011 11:02:00 AM	Robert Lynch		
1112696-039A	EPA_TO15	SAMP	R45189	12/31/2011 11:49:00 AM	Robert Lynch		
1112696-011A	EPA_TO15	SAMP	R45189	12/31/2011 12:41:00 PM	Robert Lynch		
1112696-012A	EPA_TO15	SAMP	R45189	12/31/2011 1:29:00 PM	Robert Lynch		Vent tip on bottle received loose/unscrewed causing leakage.
1112696-020A	EPA_TO15	SAMP	R45189	12/31/2011 2:18:00 PM	Robert Lynch		High concentrations of non-target analytes present. Do not want to run at a lower dilution due to likelihood of interferances from non-targets.
RLVS2 VOA1 12301	EPA_TO15	RLVS	R45189	12/31/2011 3:05:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889184	ICV VOA1 123011	EPA_TO15	ICV	\1\DATA\123011	12/31/2011 12:3	1	R45189		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	9.77	9.77		9.6	0	0	0.107	1	0	102%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.66	9.66		10	0	0	0.211	1	0	97%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	9.82	9.82		9.8	0	0	0.108	1	0	100%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	8.79	8.79		9.8	0	0	0.2	1	0	90%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.48	9.48		9.7	0	0	0.111	1	0	98%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.87	9.87		9.9	0	0	0.097	1	0	100%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.98	6.98		9.1	0	0	0.271	1	0	77%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.06	9.06		9.8	0	0	0.245	1	0	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.7	8.7		9.6	0	0	0.186	1	0	91%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.03	9.03		9.7	0	0	0.208	1	0	93%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.12	9.12		9.7	0	0	0.196	1	0	94%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.97	8.97		9.8	0	0	0.224	1	0	92%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.95	8.95		9.7	0	0	0.24	1	0	92%	70	130	0%	
1,3-Butadiene	A	ppbv	11.13	11.13		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.02	9.02		9.7	0	0	0.202	1	0	93%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.01	9.01		9.6	0	0	0.194	1	0	94%	70	130	0%	
1,4-Dioxane	A	ppbv	8.65	8.65		9.6	0	0	0.128	1	0	90%	70	130	0%	
2-Butanone	A	ppbv	9.42	9.42		9.9	0	0	0.287	1	0	95%	70	130	0%	
2-Hexanone	A	ppbv	9.57	9.57		9.8	0	0	0.135	1	0	98%	70	130	0%	
2-Propanol	A	ppbv	10.03	10.03		10.1	0	0	0.329	1	0	99%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.61	9.61		10	0	0	0.157	1	0	96%	70	130	0%	
Acetone	A	ppbv	8.99	8.99		10	0	0	0.43	1	0	90%	70	130	0%	
Benzene	A	ppbv	8.92	8.92		9.6	0	0	0.126	1	0	93%	70	130	0%	
Benzyl chloride	A	ppbv	9.23	9.23		9.7	0	0	0.155	1	0	95%	70	130	0%	
Bromodichloromethane	A	ppbv	9.09	9.09		9.6	0	0	0.156	1	0	95%	70	130	0%	
Bromoform	A	ppbv	9.11	9.11		9.6	0	0	0.197	1	0	95%	70	130	0%	
Bromomethane	A	ppbv	10.06	10.06		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	9.81	9.81		9.7	0	0	0.093	1	0	101%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.22	9.22		9.5	0	0	0.114	1	0	97%	70	130	0%	
Chlorobenzene	A	ppbv	9.06	9.06		9.9	0	0	0.275	1	0	92%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.87	8.87		9.2	0	0	0.165	1	0	96%	70	130	0%	
Chloroethane	A	ppbv	9.58	9.58		9.8	0	0	0.063	1	0	98%	70	130	0%	
Chloroform	A	ppbv	10.02	10.02		9.4	0	0	0.126	1	0	107%	70	130	0%	
Chloromethane	A	ppbv	9.48	9.48		9.8	0	0	0.104	1	0	97%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889184	ICV VOA1 123011	EPA_TO15	ICV	\1\DATA\123011	12/31/2011 12:3	1	R45189		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	9.39	9.39		9.8	0	0	0.107	1	0	96%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.68	8.68		9.5	0	0	0.166	1	0	91%	70	130	0%	
Cyclohexane	A	ppbv	10.43	10.43		9.8	0	0	0.684	2	0	106%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.86	9.86		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	8.91	8.91		9.2	0	0	1.962	5	0	97%	70	130	0%	
Ethyl acetate	A	ppbv	9.63	9.63		9.8	0	0	0.157	1	0	98%	70	130	0%	
Ethylbenzene	A	ppbv	9.22	9.22		9.8	0	0	0.737	2	0	94%	70	130	0%	
Heptane	A	ppbv	10.27	10.27		9.9	0	0	0.249	1	0	104%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.55	7.55		9.4	0	0	0.374	2	0	80%	70	130	0%	
m,p-Xylene	A	ppbv	18.2	18.2		19.2	0	0	0.524	2	0	95%	70	130	0%	
Methylene chloride	A	ppbv	9.56	9.56		10	0	0	2.077	5	0	96%	70	130	0%	
n-Hexane	A	ppbv	10.01	10.01		10.1	0	0	0.692	2	0	99%	70	130	0%	
Naphthalene	A	ppbv	7.38	7.38		9.2	0	0	0.247	1	0	80%	70	130	0%	
o-Xylene	A	ppbv	9.51	9.51		10	0	0	0.258	1	0	95%	70	130	0%	
Propylene	A	ppbv	10.74	10.74		10.2	0	0	0.075	1	0	105%	70	130	0%	
Styrene	A	ppbv	9.37	9.37		9.8	0	0	0.263	1	0	96%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.75	8.75		9.9	0	0	0.228	1	0	88%	70	130	0%	
Tetrachloroethene	A	ppbv	9.44	9.44		9.6	0	0	0.148	1	0	98%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.02	10.02		10	0	0	0.201	1	0	100%	70	130	0%	
Toluene	A	ppbv	8.82	8.82		9.8	0	0	0.158	1	0	90%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.62	9.62		9.8	0	0	0.117	1	0	98%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.35	8.35		9.1	0	0	0.171	1	0	92%	70	130	0%	
Trichloroethene	A	ppbv	9.13	9.13		9.6	0	0	0.119	1	0	95%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.14	10.14		9.6	0	0	0.148	1	0	106%	70	130	0%	
Vinyl acetate	A	ppbv	9.51	9.51		9.9	0	0	0.266	1	0	96%	70	130	0%	
Vinyl chloride	A	ppbv	11.46	11.46		9.4	0	0	0.072	1	0	122%	70	130	0%	
Xylenes, Total	C	ppbv	27.71	27.71		29.2	0	0	0.782	3	0	95%	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	12.77	12.77		12.5	0	0	0	0	0	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 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	105	0.00
2	T	Propylene	1.217	1.281	-5.3	104	0.00
3	T	Dichlorodifluoromethane	3.196	3.425	-7.2	104	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.389	2.649	-10.9	103	0.00
5	T	Chloromethane	1.120	1.118	0.2	99	0.00
6	T	Vinyl chloride	1.269	1.546	-21.8	102	0.00
7	T	1,3-Butadiene	1.073	1.219	-13.6	102	0.00
8	T	Bromomethane	1.347	1.457	-8.2	101	0.00
9	T	Chloroethane	0.777	0.809	-4.1	98	0.00
10	T	Trichlorofluoromethane	2.746	2.901	-5.6	95	0.00
11	T	Ethanol	0.340	0.329	3.2	85	0.00
12	T	Freon113	2.232	2.236	-0.2	85	0.00
13	T	1,1-Dichloroethene	1.766	1.760	0.3	89	0.00
14	T	Acetone	1.714	1.541	10.1	82	0.00
15	T	Carbon disulfide	3.465	3.503	-1.1	93	0.00
16	T	2-Propanol	1.782	1.771	0.6	88	-0.01
17	T	Methylene chloride	1.349	1.290	4.4	90	0.00
18	T	tert-Butyl Methyl Ether	2.413	2.134	11.6	79	0.00
19	T	trans-1,2-Dichloroethene	1.661	1.631	1.8	89	0.00
20	T	n-Hexane	1.821	1.805	0.9	90	0.00
21	T	1,1-Dichloroethane	2.020	1.974	2.3	90	0.00
22	T	Vinyl acetate	2.486	2.389	3.9	85	0.00
23	T	cis-1,2-Dichloroethene	1.184	1.135	4.1	86	0.00
24	T	2-Butanone	1.841	1.752	4.8	89	0.00
25	T	Ethyl acetate	2.300	2.260	1.7	91	0.00
26	T	Tetrahydrofuran	1.134	1.136	-0.2	91	0.00
27	T	Chloroform	2.019	2.064	-2.2	93	0.00
28	T	1,1,1-Trichloroethane	1.946	1.981	-1.8	91	0.00
29	T	Cyclohexane	1.727	1.838	-6.4	94	0.00
30	T	Carbon tetrachloride	1.923	1.866	3.0	86	0.00
31	T	Benzene	2.884	2.679	7.1	84	0.00
32	T	1,2-Dichloroethane	1.098	1.033	5.9	87	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.632	0.656	-3.8	96	0.00
35	T	Trichloroethene	0.428	0.407	4.9	85	0.00
36	T	1,2-Dichloropropane	0.329	0.301	8.5	87	0.00
37	T	1,4-Dioxane	0.161	0.145	9.9	81	0.00
38	T	Bromodichloromethane	0.595	0.563	5.4	89	0.00
39	T	cis-1,3-Dichloropropene	0.504	0.460	8.7	86	0.00
40	T	4-Methyl-2-pentanone	0.257	0.247	3.9	88	0.00
41	T	Toluene	0.950	0.855	10.0	85	0.00
42	T	trans-1,3-Dichloropropene	0.434	0.398	8.3	87	0.00
43	T	1,1,2-Trichloroethane	0.335	0.301	10.1	84	0.00
44	T	Tetrachloroethene	0.490	0.481	1.8	87	0.00
45	T	2-Hexanone	0.540	0.527	2.4	89	0.00
46	T	Chlorodibromomethane	0.510	0.462	9.4	83	0.00
47	T	1,2-Dibromoethane	0.487	0.441	9.4	83	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00
49	T	Chlorobenzene	0.910	0.832	8.6	82	0.00
50	T	Ethylbenzene	1.460	1.374	5.9	86	0.00
51	T	m,p-Xylene	1.132	1.073	5.2	89	0.00
52	T	o-Xylene	1.061	1.008	5.0	86	0.00
53	T	Styrene	0.810	0.774	4.4	84	0.00
54	T	Bromoform	0.586	0.556	5.1	83	0.00
55	S	4-Bromofluorobenzene	0.573	0.585	-2.1	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 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	0.810	0.783	3.3	89	0.00
57	T	4-Ethyltoluene	1.298	1.206	7.1	86	0.00
58	T	1,3,5-Trimethylbenzene	1.081	0.997	7.8	86	0.00
59	T	1,2,4-Trimethylbenzene	1.024	0.946	7.6	85	0.00
60	T	1,3-Dichlorobenzene	0.653	0.607	7.0	82	0.00
61	T	1,4-Dichlorobenzene	0.607	0.570	6.1	82	0.00
62	T	Benzyl chloride	0.927	0.883	4.7	86	0.00
63	T	1,2-Dichlorobenzene	0.601	0.560	6.8	82	0.00
64	T	1,2,4-Trichlorobenzene	0.141	0.108	23.4	76	0.00
65	T	Hexachlorobutadiene	0.308	0.248	19.5	81	0.00
66		Naphthalene	0.257	0.207	19.5	77	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 10:41 2012 Quant Results File: 123011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration
DataAcq Meth : 123011V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	724900	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2461904	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1662130	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.20	95	972753	12.77	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 102.16%				
Target Compounds							Qvalue
2) Propylene	5.52	41	757743	10.74	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1827290	9.86	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1459244	10.53	ppbv		86
5) Chloromethane	6.00	50	615936	9.48	ppbv		99
6) Vinyl chloride	6.22	62	842944	11.46	ppbv		100
7) 1,3-Butadiene	6.27	39	692628	11.13	ppbv		98
8) Bromomethane	6.86	94	785693	10.06	ppbv		98
9) Chloroethane	7.00	64	431426	9.58	ppbv		100
10) Trichlorofluoromethane	7.34	101	1615300	10.14	ppbv		99
11) Ethanol	7.57	45	175756	8.91	ppbv		99
12) Freon113	8.00	101	1270681	9.82	ppbv		92
13) 1,1-Dichloroethene	8.10	61	1010231	9.87	ppbv		95
14) Acetone	8.19	43	893665	8.99	ppbv	#	96
15) Carbon disulfide	8.47	76	1970588	9.81	ppbv	#	100
16) 2-Propanol	8.23	45	1037169	10.03	ppbv	#	66
17) Methylene chloride	8.76	49	747950	9.56	ppbv		91
18) tert-Butyl Methyl Ether	8.96	73	1224949	8.75	ppbv		93
19) trans-1,2-Dichloroethene	9.04	61	926671	9.62	ppbv		93
20) n-Hexane	9.23	57	1057211	10.01	ppbv		98
21) 1,1-Dichloroethane	9.60	63	1110363	9.48	ppbv		98
22) Vinyl acetate	9.53	43	1371747	9.51	ppbv		97
23) cis-1,2-Dichloroethene	10.29	96	644804	9.39	ppbv		95
24) 2-Butanone	10.25	43	1005992	9.42	ppbv		94
25) Ethyl acetate	10.20	43	1284336	9.63	ppbv	#	100
26) Tetrahydrofuran	10.59	42	659057	10.02	ppbv		95
27) Chloroform	10.61	83	1172755	10.02	ppbv		99
28) 1,1,1-Trichloroethane	10.86	97	1103144	9.77	ppbv		97
29) Cyclohexane	10.87	56	1044555	10.43	ppbv		94
30) Carbon tetrachloride	11.02	117	1028081	9.22	ppbv		98
31) Benzene	11.30	78	1491594	8.92	ppbv		98
32) 1,2-Dichloroethane	11.38	62	580903	9.12	ppbv		98
34) Heptane	11.35	43	1278587	10.27	ppbv		95
35) Trichloroethene	12.03	130	768654	9.13	ppbv		95
36) 1,2-Dichloropropane	12.39	63	580163	8.97	ppbv		96
37) 1,4-Dioxane	12.46	88	274587	8.65	ppbv		93
38) Bromodichloromethane	12.68	83	1064066	9.09	ppbv		99
39) cis-1,3-Dichloropropene	13.23	75	860326	8.68	ppbv		98
40) 4-Methyl-2-pentanone	13.34	58	485649	9.61	ppbv		92
41) Toluene	13.63	91	1649893	8.82	ppbv		98
42) trans-1,3-Dichloropropene	13.94	75	713309	8.35	ppbv		98
43) 1,1,2-Trichloroethane	14.21	97	580203	8.79	ppbv		97
44) Tetrachloroethene	14.33	166	910319	9.44	ppbv		99
45) 2-Hexanone	14.41	43	1017043	9.57	ppbv		98
46) Chlorodibromomethane	14.76	129	891734	8.87	ppbv		99
47) 1,2-Dibromoethane	14.99	107	834111	8.70	ppbv		100
49) Chlorobenzene	15.59	112	1095857	9.06	ppbv		94
50) Ethylbenzene	15.63	91	1790201	9.22	ppbv		95
51) m,p-Xylene	15.78	91	2739231	18.20	ppbv		95
52) o-Xylene	16.37	91	1340924	9.51	ppbv	#	93

(#) = qualifier out of range (m) = manual integration
12301117.D 123011V1.M Tue Jan 03 16:12:42 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 10:41 2012 Quant Results File: 123011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration
DataAcq Meth : 123011V1

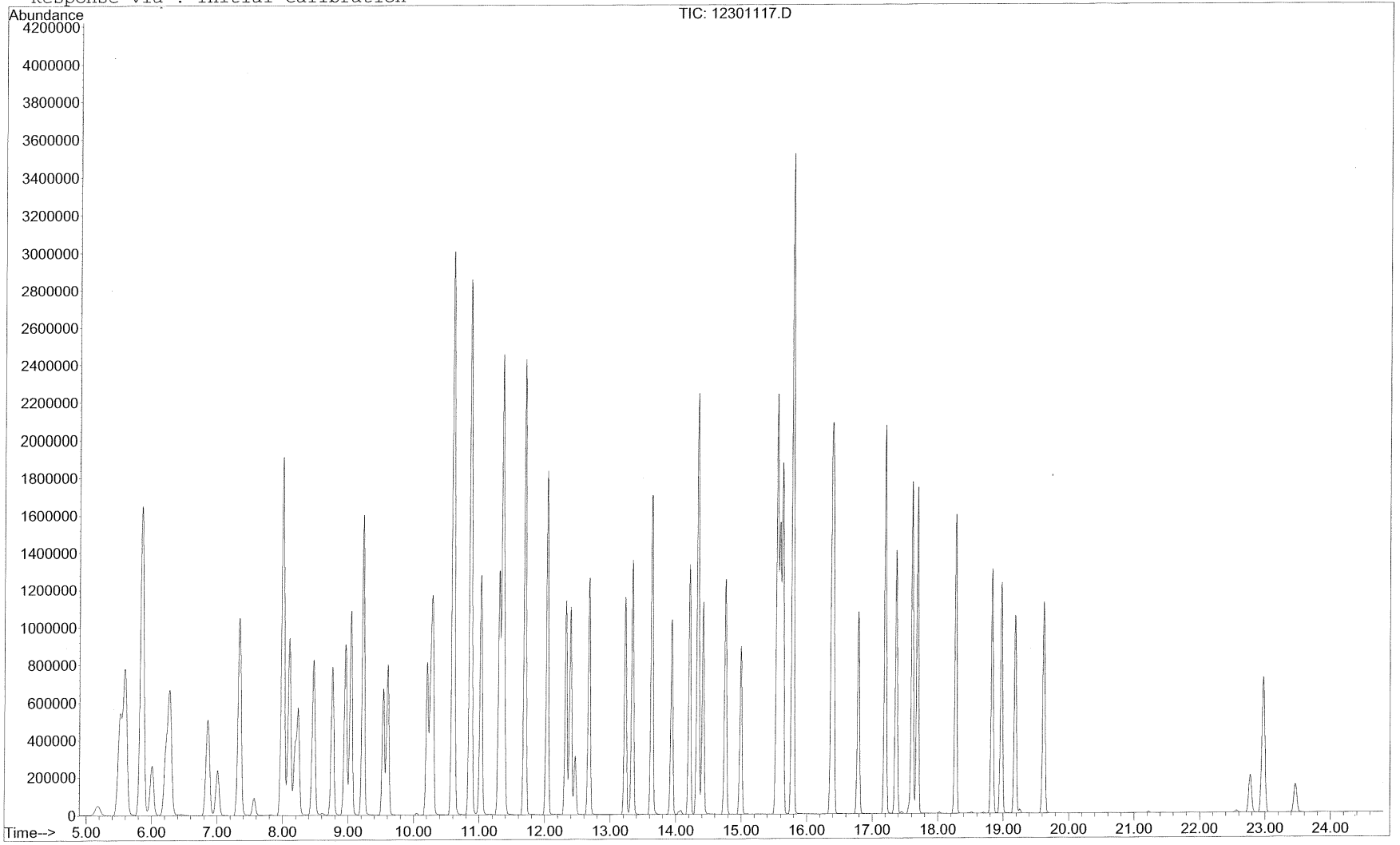
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.41	104	1008641	9.37	ppbv		99
54)	Bromoform	16.79	173	709429	9.11	ppbv		99
56)	1,1,2,2-Tetrachloroethane	17.36	83	1040593	9.66	ppbv	#	99
57)	4-Ethyltoluene	17.60	105	1572107	9.11	ppbv		96
58)	1,3,5-Trimethylbenzene	17.69	105	1285563	8.95	ppbv		97
59)	1,2,4-Trimethylbenzene	18.27	105	1232500	9.06	ppbv		98
60)	1,3-Dichlorobenzene	18.83	146	782599	9.02	ppbv		99
61)	1,4-Dichlorobenzene	18.97	146	727790	9.01	ppbv		99
62)	Benzyl chloride	19.18	91	1138262	9.23	ppbv		98
63)	1,2-Dichlorobenzene	19.62	146	722188	9.03	ppbv		99
64)	1,2,4-Trichlorobenzene	22.78	180	130697	6.98	ppbv		98
65)	Hexachlorobutadiene	22.97	225	309702	7.55	ppbv		99
66)	Naphthalene	23.46	128	252708	7.38	ppbv		99

(#) = qualifier out of range (m) = manual integration
12301117.D 123011V1.M Tue Jan 03 16:12:42 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\123011\12301117.D Vial: 1
Acq On : 31 Dec 2011 12:35 am Operator: RACHEL HILL
Sample : ICV VOA1 123011 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 10:41 2012 Quant Results File: 123011V1.RES

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120102A **Run No.:** 45190

Analytical Run Date: 1/2/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 010212	BFB_TUNE	TUNE	R45190	1/2/2012 9:30:00 AM	Robert Lynch		
1ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 3:46:00 PM	Robert Lynch		
10ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 4:32:00 PM	Robert Lynch		
12ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 5:18:00 PM	Robert Lynch		
15ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 6:04:00 PM	Robert Lynch		
20ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 6:50:00 PM	Robert Lynch		
30ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 7:38:00 PM	Robert Lynch		
50ppb ICAL	EPA_TO15	ICAL	R45190	1/2/2012 8:26:00 PM	Robert Lynch		
BFB2 VOA1 010212	BFB_TUNE	TUNE	R45190	1/2/2012 9:10:00 PM	Robert Lynch		
ICV VOA1 010212	EPA_TO15	ICV	R45190	1/2/2012 10:42:00 PM	Robert Lynch		
RLVS VOA1 010212	EPA_TO15	RLVS	R45190	1/2/2012 11:29:00 PM	Robert Lynch		
MBLK VOA1 010212	EPA_TO15	MBLK	R45190	1/3/2012 12:21:00 AM	Charles O`Bryan		
1112696-002A	EPA_TO15	SAMP	R45190	1/3/2012 4:55:00 AM	Robert Lynch		
1112696-003A	EPA_TO15	SAMP	R45190	1/3/2012 5:40:00 AM	Robert Lynch		
1112696-004A	EPA_TO15	SAMP	R45190	1/3/2012 7:18:00 AM	Robert Lynch		
1112696-022A	EPA_TO15	SAMP	R45190	1/3/2012 8:49:00 AM	Robert Lynch		
1112696-023A	EPA_TO15	SAMP	R45190	1/3/2012 9:34:00 AM	Robert Lynch		
1112398-010A	EPA_TO15	SAMP	R45190	1/3/2012 12:35:00 PM	Robert Lynch		
1112398-010ADUP	EPA_TO15	DUP	R45190	1/3/2012 1:21:00 PM	Charles O`Bryan		
1112696-027A	EPA_TO15	SAMP	R45190	1/3/2012 2:07:00 PM	Robert Lynch		
1112696-032A	EPA_TO15	SAMP	R45190	1/3/2012 2:53:00 PM	Robert Lynch		
1112696-033A	EPA_TO15	SAMP	R45190	1/3/2012 3:38:00 PM	Robert Lynch		
1112696-034A	EPA_TO15	SAMP	R45190	1/3/2012 4:23:00 PM	Robert Lynch		
1112696-035A	EPA_TO15	SAMP	R45190	1/3/2012 5:09:00 PM	Robert Lynch		
RLVS2 VOA1 01021	EPA_TO15	RLVS	R45190	1/3/2012 7:26:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889228	ICV VOA1 010212	EPA_TO15	ICV	.\1\DATA\010212	1/2/2012 10:42:0	1	R45190		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	9.74	9.74		9.6	0	0	0.107	1	0	101%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.89	9.89		10	0	0	0.211	1	0	99%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.06	10.06		9.8	0	0	0.108	1	0	103%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.96	9.96		9.8	0	0	0.2	1	0	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.28	9.28		9.7	0	0	0.111	1	0	96%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.88	9.88		9.9	0	0	0.097	1	0	100%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.02	9.02		9.1	0	0	0.271	1	0	99%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.99	9.99		9.8	0	0	0.245	1	0	102%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.24	10.24		9.6	0	0	0.186	1	0	107%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.68	10.68		9.7	0	0	0.208	1	0	110%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.99	8.99		9.7	0	0	0.196	1	0	93%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.19	9.19		9.8	0	0	0.224	1	0	94%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.59	9.59		9.7	0	0	0.24	1	0	99%	70	130	0%	
1,3-Butadiene	A	ppbv	10.82	10.82		9.8	0	0	0.152	1	0	110%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.56	10.56		9.7	0	0	0.202	1	0	109%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	10.53	10.53		9.6	0	0	0.194	1	0	110%	70	130	0%	
1,4-Dioxane	A	ppbv	10.25	10.25		9.6	0	0	0.128	1	0	107%	70	130	0%	
2-Butanone	A	ppbv	9.78	9.78		9.9	0	0	0.287	1	0	99%	70	130	0%	
2-Hexanone	A	ppbv	10.21	10.21		9.8	0	0	0.135	1	0	104%	70	130	0%	
2-Propanol	A	ppbv	10.45	10.45		10.1	0	0	0.329	1	0	103%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.04	10.04		10	0	0	0.157	1	0	100%	70	130	0%	
Acetone	A	ppbv	9.27	9.27		10	0	0	0.43	1	0	93%	70	130	0%	
Benzene	A	ppbv	9.05	9.05		9.6	0	0	0.126	1	0	94%	70	130	0%	
Benzyl chloride	A	ppbv	10.05	10.05		9.7	0	0	0.155	1	0	104%	70	130	0%	
Bromodichloromethane	A	ppbv	9.65	9.65		9.6	0	0	0.156	1	0	101%	70	130	0%	
Bromoform	A	ppbv	10.2	10.2		9.6	0	0	0.197	1	0	106%	70	130	0%	
Bromomethane	A	ppbv	9.79	9.79		9.3	0	0	0.075	1	0	105%	70	130	0%	
Carbon disulfide	A	ppbv	10.19	10.19		9.7	0	0	0.093	1	0	105%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.66	9.66		9.5	0	0	0.114	1	0	102%	70	130	0%	
Chlorobenzene	A	ppbv	9.79	9.79		9.9	0	0	0.275	1	0	99%	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	9.41	9.41		9.8	0	0	0.063	1	0	96%	70	130	0%	
Chloroform	A	ppbv	9.8	9.8		9.4	0	0	0.126	1	0	104%	70	130	0%	
Chloromethane	A	ppbv	9.49	9.49		9.8	0	0	0.104	1	0	97%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889228	ICV VOA1 010212	EPA_TO15	ICV	\1\DATA\010212	1/2/2012 10:42:0	1	R45190		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
cis-1,2-Dichloroethene	A	ppbv	9.75	9.75		9.8	0	0	0.107	1	0	99%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.26	9.26		9.5	0	0	0.166	1	0	97%	70	130	0%	
Cyclohexane	A	ppbv	9.83	9.83		9.8	0	0	0.684	2	0	100%	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	9.29	9.29		9.2	0	0	1.962	5	0	101%	70	130	0%	
Ethyl acetate	A	ppbv	9.39	9.39		9.8	0	0	0.157	1	0	96%	70	130	0%	
Ethylbenzene	A	ppbv	9.49	9.49		9.8	0	0	0.737	2	0	97%	70	130	0%	
Heptane	A	ppbv	10.04	10.04		9.9	0	0	0.249	1	0	101%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.02	9.02		9.4	0	0	0.374	2	0	96%	70	130	0%	
m,p-Xylene	A	ppbv	18.12	18.12		19.2	0	0	0.524	2	0	94%	70	130	0%	
Methylene chloride	A	ppbv	9.23	9.23		10	0	0	2.077	5	0	92%	70	130	0%	
n-Hexane	A	ppbv	9.71	9.71		10.1	0	0	0.692	2	0	96%	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	9.76	9.76		10	0	0	0.258	1	0	98%	70	130	0%	
Propylene	A	ppbv	10.47	10.47		10.2	0	0	0.075	1	0	103%	70	130	0%	
Styrene	A	ppbv	10.03	10.03		9.8	0	0	0.263	1	0	102%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.16	9.16		9.9	0	0	0.228	1	0	93%	70	130	0%	
Tetrachloroethene	A	ppbv	11.01	11.01		9.6	0	0	0.148	1	0	115%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.91	9.91		10	0	0	0.201	1	0	99%	70	130	0%	
Toluene	A	ppbv	9.75	9.75		9.8	0	0	0.158	1	0	99%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.39	9.39		9.8	0	0	0.117	1	0	96%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.02	9.02		9.1	0	0	0.171	1	0	99%	70	130	0%	
Trichloroethene	A	ppbv	10.06	10.06		9.6	0	0	0.119	1	0	105%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.03	10.03		9.6	0	0	0.148	1	0	104%	70	130	0%	
Vinyl acetate	A	ppbv	9.32	9.32		9.9	0	0	0.266	1	0	94%	70	130	0%	
Vinyl chloride	A	ppbv	11.16	11.16		9.4	0	0	0.072	1	0	119%	70	130	0%	
Xylenes, Total	C	ppbv	27.88	27.88		29.2	0	0	0.782	3	0	95%	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	12.65	12.65		12.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	125	0.00
2	T	Propylene	1.259	1.292	-2.6	113	0.00
3	T	Dichlorodifluoromethane	3.346	3.427	-2.4	112	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.493	2.636	-5.7	117	0.00
5	T	Chloromethane	1.165	1.164	0.1	106	0.00
6	T	Vinyl chloride	1.391	1.652	-18.8	113	0.00
7	T	1,3-Butadiene	1.113	1.229	-10.4	114	0.00
8	T	Bromomethane	1.372	1.444	-5.2	124	0.00
9	T	Chloroethane	0.795	0.813	-2.3	116	0.00
10	T	Trichlorofluoromethane	2.815	2.940	-4.4	119	0.00
11	T	Ethanol	0.361	0.365	-1.1	105	0.00
12	T	Freon113	2.309	2.370	-2.6	112	0.00
13	T	1,1-Dichloroethene	1.823	1.819	0.2	110	0.00
14	T	Acetone	1.828	1.693	7.4	98	0.00
15	T	Carbon disulfide	3.521	3.700	-5.1	116	0.00
16	T	2-Propanol	1.894	1.959	-3.4	105	0.00
17	T	Methylene chloride	1.411	1.303	7.7	103	0.00
18	T	tert-Butyl Methyl Ether	2.584	2.390	7.5	99	0.00
19	T	trans-1,2-Dichloroethene	1.744	1.671	4.2	105	0.00
20	T	n-Hexane	1.917	1.843	3.9	104	0.00
21	T	1,1-Dichloroethane	2.131	2.038	4.4	105	0.00
22	T	Vinyl acetate	2.687	2.531	5.8	93	0.00
23	T	cis-1,2-Dichloroethene	1.227	1.220	0.6	111	0.00
24	T	2-Butanone	1.943	1.918	1.3	104	0.00
25	T	Ethyl acetate	2.491	2.387	4.2	99	0.00
26	T	Tetrahydrofuran	1.235	1.224	0.9	97	0.00
27	T	Chloroform	2.153	2.153	0.0	105	0.00
28	T	1,1,1-Trichloroethane	2.058	2.089	-1.5	107	0.00
29	T	Cyclohexane	1.841	1.847	-0.3	103	0.00
30	T	Carbon tetrachloride	2.013	2.046	-1.6	111	0.00
31	T	Benzene	3.044	2.868	5.8	101	0.00
32	T	1,2-Dichloroethane	1.182	1.095	7.4	97	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	132	0.00
34	T	Heptane	0.714	0.725	-1.5	103	0.00
35	T	Trichloroethene	0.471	0.493	-4.7	113	0.00
36	T	1,2-Dichloropropane	0.371	0.348	6.2	98	0.00
37	T	1,4-Dioxane	0.177	0.188	-6.2	109	0.00
38	T	Bromodichloromethane	0.664	0.668	-0.6	106	0.00
39	T	cis-1,3-Dichloropropene	0.559	0.545	2.5	101	0.00
40	T	4-Methyl-2-pentanone	0.287	0.288	-0.3	101	0.00
41	T	Toluene	1.038	1.032	0.6	104	0.00
42	T	trans-1,3-Dichloropropene	0.475	0.471	0.8	102	0.00
43	T	1,1,2-Trichloroethane	0.363	0.368	-1.4	106	0.00
44	T	Tetrachloroethene	0.515	0.590	-14.6	117	0.00
45	T	2-Hexanone	0.600	0.625	-4.2	102	0.00
46	T	Chlorodibromomethane	0.540	0.581	-7.6	111	0.00
47	T	1,2-Dibromoethane	0.512	0.546	-6.6	111	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	138	0.00
49	T	Chlorobenzene	1.000	0.989	1.1	111	0.00
50	T	Ethylbenzene	1.640	1.589	3.1	107	0.00
51	T	m,p-Xylene	1.295	1.223	5.6	105	0.00
52	T	o-Xylene	1.202	1.172	2.5	108	0.00
53	T	Styrene	0.900	0.921	-2.3	111	0.00
54	T	Bromoform	0.642	0.683	-6.4	118	0.00
55	S	4-Bromofluorobenzene	0.589	0.596	-1.2	137	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.919	0.908	1.2	110	0.00
57	T	4-Ethyltoluene	1.458	1.449	0.6	114	0.00
58	T	1,3,5-Trimethylbenzene	1.214	1.199	1.2	115	0.00
59	T	1,2,4-Trimethylbenzene	1.140	1.163	-2.0	116	0.00
60	T	1,3-Dichlorobenzene	0.707	0.770	-8.9	122	0.00
61	T	1,4-Dichlorobenzene	0.662	0.726	-9.7	122	0.00
62	T	Benzyl chloride	1.024	1.061	-3.6	113	0.00
63	T	1,2-Dichlorobenzene	0.647	0.712	-10.0	123	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.138	1.4	115	0.00
65	T	Hexachlorobutadiene	0.320	0.307	4.1	116	0.00
66		Naphthalene	0.251	0.257	-2.4	114	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 11:53 2012 Quant Results File: 010212V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
DataAcq Meth : 010212V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	693847	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	2180387	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1548744	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	922731	12.65	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.20%				
Target Compounds							Qvalue
2) Propylene	5.52	41	731564	10.47	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1750134	9.42	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1390238	10.05	ppbv		84
5) Chloromethane	6.00	50	613804	9.49	ppbv		99
6) Vinyl chloride	6.21	62	861916	11.16	ppbv		99
7) 1,3-Butadiene	6.28	39	668411	10.82	ppbv		97
8) Bromomethane	6.86	94	745457	9.79	ppbv		99
9) Chloroethane	7.00	64	415190	9.41	ppbv		100
10) Trichlorofluoromethane	7.34	101	1566641	10.03	ppbv		99
11) Ethanol	7.56	45	186443	9.29	ppbv		100
12) Freon113	8.00	101	1289107	10.06	ppbv		95
13) 1,1-Dichloroethene	8.10	61	999834	9.88	ppbv		98
14) Acetone	8.19	43	939947	9.27	ppbv	#	96
15) Carbon disulfide	8.47	76	1992238	10.19	ppbv	#	100
16) 2-Propanol	8.23	45	1098324	10.45	ppbv	#	66
17) Methylene chloride	8.76	49	723085	9.23	ppbv		95
18) tert-Butyl Methyl Ether	8.95	73	1313356	9.16	ppbv		94
19) trans-1,2-Dichloroethene	9.04	61	908939	9.39	ppbv		96
20) n-Hexane	9.23	57	1033135	9.71	ppbv		98
21) 1,1-Dichloroethane	9.60	63	1097305	9.28	ppbv		99
22) Vinyl acetate	9.53	43	1390597	9.32	ppbv		98
23) cis-1,2-Dichloroethene	10.28	96	663752	9.75	ppbv		98
24) 2-Butanone	10.25	43	1054247	9.78	ppbv		94
25) Ethyl acetate	10.20	43	1298659	9.39	ppbv	#	99
26) Tetrahydrofuran	10.59	42	679370	9.91	ppbv		96
27) Chloroform	10.61	83	1171173	9.80	ppbv		99
28) 1,1,1-Trichloroethane	10.86	97	1113023	9.74	ppbv		99
29) Cyclohexane	10.86	56	1004597	9.83	ppbv		96
30) Carbon tetrachloride	11.02	117	1078924	9.66	ppbv		99
31) Benzene	11.30	78	1528245	9.05	ppbv		99
32) 1,2-Dichloroethane	11.38	62	589486	8.99	ppbv		99
34) Heptane	11.35	43	1251534	10.04	ppbv		96
35) Trichloroethene	12.03	130	826200	10.06	ppbv		97
36) 1,2-Dichloropropane	12.39	63	594754	9.19	ppbv		97
37) 1,4-Dioxane	12.46	88	315602	10.25	ppbv		98
38) Bromodichloromethane	12.67	83	1118015	9.65	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	903704	9.26	ppbv		99
40) 4-Methyl-2-pentanone	13.33	58	501768	10.04	ppbv		95
41) Toluene	13.63	91	1764828	9.75	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	746898	9.02	ppbv		100
43) 1,1,2-Trichloroethane	14.21	97	629845	9.96	ppbv		98
44) Tetrachloroethene	14.33	166	988235	11.01	ppbv		99
45) 2-Hexanone	14.41	43	1068198	10.21	ppbv		99
46) Chlorodibromomethane	14.75	129	993970	10.56	ppbv		100
47) 1,2-Dibromoethane	14.99	107	913703	10.24	ppbv		99
49) Chlorobenzene	15.59	112	1212952	9.79	ppbv		97
50) Ethylbenzene	15.63	91	1929149	9.49	ppbv		97
51) m,p-Xylene	15.78	91	2908376	18.12	ppbv		96
52) o-Xylene	16.38	91	1452560	9.76	ppbv		95

(#) = qualifier out of range (m) = manual integration
01021217.D 010212V1.M Mon Jan 09 17:49:32 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 11:53 2012 Quant Results File: 010212V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
DataAcq Meth : 010212V1

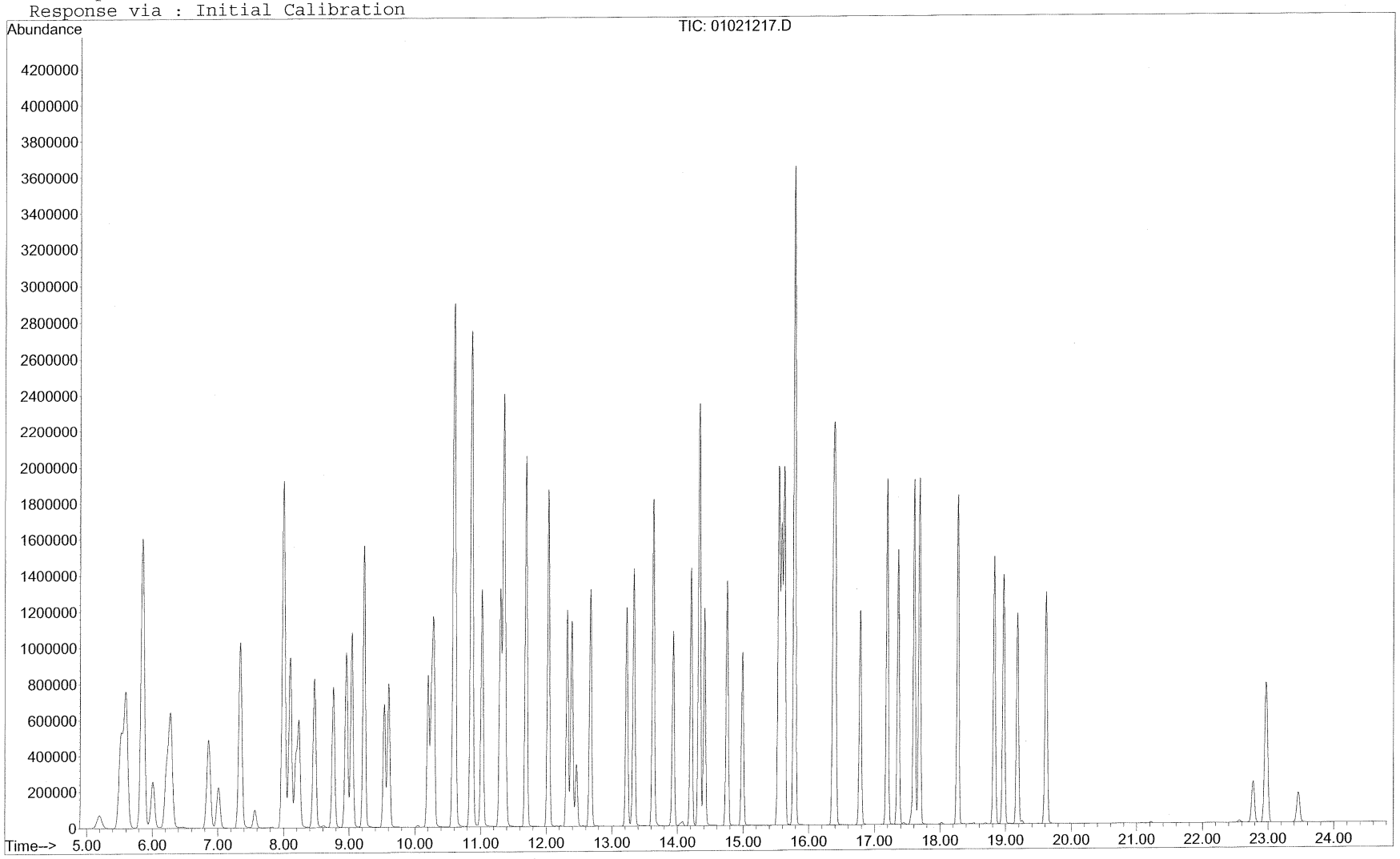
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) Styrene	16.40	104	1118448	10.03	ppbv	98
54) Bromoform	16.78	173	812037	10.20	ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	1125070	9.89	ppbv	99
57) 4-Ethyltoluene	17.60	105	1759434	9.74	ppbv	97
58) 1,3,5-Trimethylbenzene	17.68	105	1441487	9.59	ppbv	99
59) 1,2,4-Trimethylbenzene	18.27	105	1411591	9.99	ppbv	99
60) 1,3-Dichlorobenzene	18.82	146	925403	10.56	ppbv	98
61) 1,4-Dichlorobenzene	18.96	146	863439	10.53	ppbv	98
62) Benzyl chloride	19.18	91	1274560	10.05	ppbv	100
63) 1,2-Dichlorobenzene	19.61	146	856270	10.68	ppbv	99
64) 1,2,4-Trichlorobenzene	22.77	180	155997	9.02	ppbv	98
65) Hexachlorobutadiene	22.97	225	357717	9.02	ppbv	99
66) Naphthalene	23.46	128	292418	9.41	ppbv	99

(#) = qualifier out of range (m) = manual integration
01021217.D 010212V1.M Mon Jan 09 17:49:32 2012 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010212\01021217.D Vial: 2
Acq On : 2 Jan 2012 10:42 pm Operator: RACHEL HILL
Sample : ICV VOA1 010212 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 3 11:53 2012 Quant Results File: 010212V1.RES

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110105A **Run No.:** 45313

Analytical Run Date: 1/5/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 45190 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 010512	BFB_TUNE	TUNE	R45313	1/5/2012 10:37:00 AM	Charles O`Bryan		
CCV VOA1 010512	EPA_TO15	CCV	R45313	1/5/2012 12:08:00 PM	Charles O`Bryan		
RLVS VOA1 010512	EPA_TO15	RLVS	R45313	1/5/2012 1:44:00 PM	Charles O`Bryan		
Blank VOA1 01051	EPA_TO15	MBLK	R45313	1/5/2012 2:37:00 PM	Charles O`Bryan		
1112696-038A	EPA_TO15	SAMP	R45313	1/5/2012 3:22:00 PM	Charles O`Bryan		
1112696-014A	EPA_TO15	SAMP	R45313	1/5/2012 4:53:00 PM	Charles O`Bryan		
1112696-015A	EPA_TO15	SAMP	R45313	1/5/2012 5:39:00 PM	Charles O`Bryan		
1112696-016A	EPA_TO15	SAMP	R45313	1/5/2012 6:25:00 PM	Charles O`Bryan		
1112696-025A	EPA_TO15	SAMP	R45313	1/5/2012 7:11:00 PM	Charles O`Bryan		
1112696-026A	EPA_TO15	SAMP	R45313	1/5/2012 8:11:00 PM	Charles O`Bryan		
1112696-013A	EPA_TO15	SAMP	R45313	1/5/2012 8:56:00 PM	Charles O`Bryan		
1112696-028A	EPA_TO15	SAMP	R45313	1/5/2012 9:43:00 PM	Charles O`Bryan		
1112696-029A	EPA_TO15	SAMP	R45313	1/5/2012 10:30:00 PM	Charles O`Bryan		
1112696-030A	EPA_TO15	SAMP	R45313	1/5/2012 11:17:00 PM	Charles O`Bryan		
1112696-031A	EPA_TO15	SAMP	R45313	1/6/2012 12:04:00 AM	Charles O`Bryan		
1112696-001A	EPA_TO15	SAMP	R45313	1/6/2012 12:51:00 AM	Charles O`Bryan		
1112696-005A	EPA_TO15	SAMP	R45313	1/6/2012 1:41:00 AM	Charles O`Bryan		
1112696-024A	EPA_TO15	SAMP	R45313	1/6/2012 2:28:00 AM	Charles O`Bryan		
1112696-036A	EPA_TO15	SAMP	R45313	1/6/2012 3:15:00 AM	Charles O`Bryan		
1112696-037A	EPA_TO15	SAMP	R45313	1/6/2012 4:02:00 AM	Charles O`Bryan		
1112696-016ADUP	EPA_TO15	DUP	R45313	1/6/2012 6:19:00 AM	Charles O`Bryan		
RLVS2 VOA1 01051	EPA_TO15	RLVS	R45313	1/6/2012 7:06:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45313

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891417	BFB VOA1 010512	BFB_TUNE	TUNE	.\1\DATA\010512	1/5/2012 10:37:0	1	R45313		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	57		100	0	0	0	0	0	57%	50	120	0%	
175	M		8.3	8.3		100	0	0	0	0	0	8%	4	9	0%	
176	M		100.9	100.9		100	0	0	0	0	0	101%	93	101	0%	
177	M		7.3	7.3		100	0	0	0	0	0	7%	5	9	0%	
50	M		27.9	27.9		100	0	0	0	0	0	28%	8	40	0%	
75	M		50.6	50.6		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		7.6	7.6		100	0	0	0	0	0	8%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891418	CCV VOA1 010512	EPA_TO15	CCV	.\1\DATA\010512	1/5/2012 12:08:0	1	R45313		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	9.48	9.48		9.6	0	0	0.107	1	0	99%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	8.54	8.54		10	0	0	0.211	1	0	85%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	9.41	9.41		9.8	0	0	0.108	1	0	96%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	7.84	7.84		9.8	0	0	0.2	1	0	80%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.24	9.24		9.7	0	0	0.111	1	0	95%	70	130	0%	
1,1-Dichloroethene	A	ppbv	9.84	9.84		9.9	0	0	0.097	1	0	99%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.46	7.46		9.1	0	0	0.271	1	0	82%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.26	8.26		9.8	0	0	0.245	1	0	84%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8	8		9.6	0	0	0.186	1	0	83%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.31	8.31		9.7	0	0	0.208	1	0	86%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.77	8.77		9.7	0	0	0.196	1	0	90%	70	130	0%	
1,2-Dichloropropane	A	ppbv	7.7	7.7		9.8	0	0	0.224	1	0	79%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.02	8.02		9.7	0	0	0.24	1	0	83%	70	130	0%	
1,3-Butadiene	A	ppbv	11.17	11.17		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.22	8.22		9.7	0	0	0.202	1	0	85%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891418	CCV VOA1 010512	EPA_TO15	CCV	\1\DATA\010512	1/5/2012 12:08:0	1	R45313		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.28	8.28		9.6	0	0	0.194	1	0	86%	70	130	0%	
1,4-Dioxane	A	ppbv	7.05	7.05		9.6	0	0	0.128	1	0	73%	70	130	0%	
2-Butanone	A	ppbv	9.14	9.14		9.9	0	0	0.287	1	0	92%	70	130	0%	
2-Hexanone	A	ppbv	8.59	8.59		9.8	0	0	0.135	1	0	88%	70	130	0%	
2-Propanol	A	ppbv	9.65	9.65		10.1	0	0	0.329	1	0	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.47	8.47		10	0	0	0.157	1	0	85%	70	130	0%	
Acetone	A	ppbv	8.53	8.53		10	0	0	0.43	1	0	85%	70	130	0%	
Benzene	A	ppbv	8.39	8.39		9.6	0	0	0.126	1	0	87%	70	130	0%	
Benzyl chloride	A	ppbv	8.26	8.26		9.7	0	0	0.155	1	0	85%	70	130	0%	
Bromodichloromethane	A	ppbv	7.97	7.97		9.6	0	0	0.156	1	0	83%	70	130	0%	
Bromoform	A	ppbv	7.98	7.98		9.6	0	0	0.197	1	0	83%	70	130	0%	
Bromomethane	A	ppbv	9.3	9.3		9.3	0	0	0.075	1	0	100%	70	130	0%	
Carbon disulfide	A	ppbv	9.74	9.74		9.7	0	0	0.093	1	0	100%	70	130	0%	
Carbon tetrachloride	A	ppbv	8.78	8.78		9.5	0	0	0.114	1	0	92%	70	130	0%	
Chlorobenzene	A	ppbv	7.99	7.99		9.9	0	0	0.275	1	0	81%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.25	8.25		9.2	0	0	0.165	1	0	90%	70	130	0%	
Chloroethane	A	ppbv	9.33	9.33		9.8	0	0	0.063	1	0	95%	70	130	0%	
Chloroform	A	ppbv	9.8	9.8		9.4	0	0	0.126	1	0	104%	70	130	0%	
Chloromethane	A	ppbv	10.92	10.92		9.8	0	0	0.104	1	0	111%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	8.78	8.78		9.8	0	0	0.107	1	0	90%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	7.61	7.61		9.5	0	0	0.166	1	0	80%	70	130	0%	
Cyclohexane	A	ppbv	10.12	10.12		9.8	0	0	0.684	2	0	103%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.73	9.73		9.2	0	0	0.086	1	0	106%	70	130	0%	
Ethanol	A	ppbv	7.73	7.73		9.2	0	0	1.962	5	0	84%	70	130	0%	
Ethyl acetate	A	ppbv	9.03	9.03		9.8	0	0	0.157	1	0	92%	70	130	0%	
Ethylbenzene	A	ppbv	8.16	8.16		9.8	0	0	0.737	2	0	83%	70	130	0%	
Heptane	A	ppbv	9.22	9.22		9.9	0	0	0.249	1	0	93%	70	130	0%	
Hexachlorobutadiene	A	ppbv	7.62	7.62		9.4	0	0	0.374	2	0	81%	70	130	0%	
m,p-Xylene	A	ppbv	16.17	16.17		19.2	0	0	0.524	2	0	84%	70	130	0%	
Methylene chloride	A	ppbv	9.51	9.51		10	0	0	2.077	5	0	95%	70	130	0%	
n-Hexane	A	ppbv	9.55	9.55		10.1	0	0	0.692	2	0	95%	70	130	0%	
Naphthalene	A	ppbv	7.42	7.42		9.2	0	0	0.247	1	0	81%	70	130	0%	
o-Xylene	A	ppbv	8.37	8.37		10	0	0	0.258	1	0	84%	70	130	0%	
Propylene	A	ppbv	10.76	10.76		10.2	0	0	0.075	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
891418	CCV VOA1 010512	EPA_TO15	CCV	\1\DATA\010512	1/5/2012 12:08:0	1	R45313		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	8.28	8.28		9.8	0	0	0.263	1	0	84%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.08	8.08		9.9	0	0	0.228	1	0	82%	70	130	0%	
Tetrachloroethene	A	ppbv	8.48	8.48		9.6	0	0	0.148	1	0	88%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.74	9.74		10	0	0	0.201	1	0	97%	70	130	0%	
Toluene	A	ppbv	7.92	7.92		9.8	0	0	0.158	1	0	81%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.27	9.27		9.8	0	0	0.117	1	0	95%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	7.41	7.41		9.1	0	0	0.171	1	0	81%	70	130	0%	
Trichloroethene	A	ppbv	7.84	7.84		9.6	0	0	0.119	1	0	82%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.86	9.86		9.6	0	0	0.148	1	0	103%	70	130	0%	
Vinyl acetate	A	ppbv	8.9	8.9		9.9	0	0	0.266	1	0	90%	70	130	0%	
Vinyl chloride	A	ppbv	11.46	11.46		9.4	0	0	0.072	1	0	122%	70	130	0%	
Xylenes, Total	C	ppbv	24.54	24.54		29.2	0	0	0.782	3	0	84%	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	12.71	12.71		12.5	0	0	0	0	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891419	RLVS VOA1 010512	EPA_TO15	RLVS	\1\DATA\010512	1/5/2012 1:44:00	1	R45313		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	1.04	1.04		0.996	0	0	0.107	1	0	104%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.15	1.15		1	0	0	0.211	1	0	115%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	1.03	1.03		0.98	0	0	0.108	1	0	105%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.85	0.85		0.98	0	0	0.2	1	0	87%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.09	1.09		0.97	0	0	0.111	1	0	112%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.1	1.1		0.99	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.18	1.18		0.91	0	0	0.271	1	0	130%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.22	1.22		0.98	0	0	0.245	1	0	124%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.87	0.87		0.96	0	0	0.186	1	0	91%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.21	1.21		0.97	0	0	0.208	1	0	125%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.18	1.18		0.97	0	0	0.196	1	0	122%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.94	0.94		0.98	0	0	0.224	1	0	96%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010512\01051203.D Vial: 3
Acq On : 5 Jan 2012 12:08 pm Operator: RACHEL HILL
Sample : CCV VOA1 010512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	98	0.00
2	T	Propylene	1.259	1.328	-5.5	91	0.00
3	T	Dichlorodifluoromethane	3.346	3.537	-5.7	91	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.493	2.509	-0.6	88	0.00
5	T	Chloromethane	1.165	1.339	-14.9	96	0.00
6	T	Vinyl chloride	1.391	1.695	-21.9	92	0.00
7	T	1,3-Butadiene	1.113	1.269	-14.0	93	0.00
8	T	Bromomethane	1.372	1.371	0.1	93	0.00
9	T	Chloroethane	0.795	0.806	-1.4	91	0.00
10	T	Trichlorofluoromethane	2.815	2.892	-2.7	93	0.00
11	T	Ethanol	0.361	0.304	15.8	69	0.00
12	T	Freon113	2.309	2.218	3.9	82	0.00
13	T	1,1-Dichloroethene	1.823	1.812	0.6	86	0.00
14	T	Acetone	1.828	1.558	14.8	71	0.00
15	T	Carbon disulfide	3.521	3.537	-0.5	88	0.00
16	T	2-Propanol	1.894	1.810	4.4	76	0.00
17	T	Methylene chloride	1.411	1.342	4.9	84	0.00
18	T	tert-Butyl Methyl Ether	2.584	2.109	18.4	69	0.00
19	T	trans-1,2-Dichloroethene	1.744	1.650	5.4	82	0.00
20	T	n-Hexane	1.917	1.812	5.5	81	0.00
21	T	1,1-Dichloroethane	2.131	2.029	4.8	83	0.00
22	T	Vinyl acetate	2.687	2.417	10.0	70	0.00
23	T	cis-1,2-Dichloroethene	1.227	1.099	10.4	79	0.00
24	T	2-Butanone	1.943	1.794	7.7	76	0.00
25	T	Ethyl acetate	2.491	2.296	7.8	75	0.00
26	T	Tetrahydrofuran	1.235	1.202	2.7	75	0.00
27	T	Chloroform	2.153	2.152	0.0	83	0.00
28	T	1,1,1-Trichloroethane	2.058	2.032	1.3	82	0.00
29	T	Cyclohexane	1.841	1.901	-3.3	83	0.00
30	T	Carbon tetrachloride	2.013	1.860	7.6	80	0.00
31	T	Benzene	3.044	2.659	12.6	74	0.00
32	T	1,2-Dichloroethane	1.182	1.069	9.6	75	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	118	0.00
34	T	Heptane	0.714	0.665	6.9	83	0.00
35	T	Trichloroethene	0.471	0.384	18.5	78	0.00
36	T	1,2-Dichloropropane	0.371	0.292	21.3	73	0.00
37	T	1,4-Dioxane	0.177	0.130	26.6	67	0.00
38	T	Bromodichloromethane	0.664	0.552	16.9	77	0.00
39	T	cis-1,3-Dichloropropene	0.559	0.448	19.9	74	0.00
40	T	4-Methyl-2-pentanone	0.287	0.243	15.3	76	0.00
41	T	Toluene	1.038	0.839	19.2	75	0.00
42	T	trans-1,3-Dichloropropene	0.475	0.386	18.7	75	0.00
43	T	1,1,2-Trichloroethane	0.363	0.290	20.1	74	0.00
44	T	Tetrachloroethene	0.515	0.455	11.7	80	0.00
45	T	2-Hexanone	0.600	0.526	12.3	76	0.00
46	T	Chlorodibromomethane	0.540	0.454	15.9	77	0.00
47	T	1,2-Dibromoethane	0.512	0.426	16.8	77	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
49	T	Chlorobenzene	1.000	0.808	19.2	77	0.00
50	T	Ethylbenzene	1.640	1.365	16.8	77	0.00
51	T	m,p-Xylene	1.295	1.091	15.8	79	0.00
52	T	o-Xylene	1.202	1.006	16.3	78	0.00
53	T	Styrene	0.900	0.761	15.4	77	0.00
54	T	Bromoform	0.642	0.534	16.8	78	0.00
55	S	4-Bromofluorobenzene	0.589	0.599	-1.7	117	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\010512\01051203.D Vial: 3
Acq On : 5 Jan 2012 12:08 pm Operator: RACHEL HILL
Sample : CCV VOA1 010512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	T	1,1,2,2-Tetrachloroethane	0.919	0.785	14.6	80	0.00
57	T	4-Ethyltoluene	1.458	1.212	16.9	81	0.00
58	T	1,3,5-Trimethylbenzene	1.214	1.003	17.4	81	0.00
59	T	1,2,4-Trimethylbenzene	1.140	0.961	15.7	81	0.00
60	T	1,3-Dichlorobenzene	0.707	0.599	15.3	80	0.00
61	T	1,4-Dichlorobenzene	0.662	0.571	13.7	81	0.00
62	T	Benzyl chloride	1.024	0.872	14.8	79	0.00
63	T	1,2-Dichlorobenzene	0.647	0.554	14.4	81	0.00
64	T	1,2,4-Trichlorobenzene	0.140	0.114	18.6	81	0.00
65	T	Hexachlorobutadiene	0.320	0.259	19.1	83	0.00
66		Naphthalene	0.251	0.202	19.5	76	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010512\01051203.D Vial: 3
Acq On : 5 Jan 2012 12:08 pm Operator: RACHEL HILL
Sample : CCV VOA1 010512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 5 12:33 2012 Quant Results File: 010212V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
DataAcq Meth : 010212V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	547937	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1935105	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1309246	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	783846	12.71	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.68%				
Target Compounds							Qvalue
2) Propylene	5.52	41	593649	10.76	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1426423	9.73	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1044994	9.56	ppbv	#	78
5) Chloromethane	6.01	50	557747	10.92	ppbv		99
6) Vinyl chloride	6.22	62	698546	11.46	ppbv		99
7) 1,3-Butadiene	6.28	39	545013	11.17	ppbv		96
8) Bromomethane	6.85	94	559108	9.30	ppbv		100
9) Chloroethane	7.01	64	325116	9.33	ppbv		99
10) Trichlorofluoromethane	7.34	101	1216917	9.86	ppbv		99
11) Ethanol	7.57	45	122465	7.73	ppbv		100
12) Freon113	8.00	101	952683	9.41	ppbv		89
13) 1,1-Dichloroethene	8.10	61	786559	9.84	ppbv		93
14) Acetone	8.19	43	683140	8.53	ppbv	#	95
15) Carbon disulfide	8.47	76	1503956	9.74	ppbv	#	100
16) 2-Propanol	8.24	45	801446	9.65	ppbv	#	66
17) Methylene chloride	8.76	49	588101	9.51	ppbv		87
18) tert-Butyl Methyl Ether	8.96	73	915396	8.08	ppbv	#	91
19) trans-1,2-Dichloroethene	9.04	61	708780	9.27	ppbv		90
20) n-Hexane	9.23	57	802129	9.55	ppbv		95
21) 1,1-Dichloroethane	9.60	63	862654	9.24	ppbv		98
22) Vinyl acetate	9.53	43	1048744	8.90	ppbv		97
23) cis-1,2-Dichloroethene	10.29	96	471903	8.78	ppbv		91
24) 2-Butanone	10.25	43	778591	9.14	ppbv		92
25) Ethyl acetate	10.20	43	986167	9.03	ppbv	#	100
26) Tetrahydrofuran	10.59	42	526917	9.74	ppbv		92
27) Chloroform	10.61	83	924290	9.80	ppbv		100
28) 1,1,1-Trichloroethane	10.86	97	854910	9.48	ppbv		96
29) Cyclohexane	10.87	56	816734	10.12	ppbv		92
30) Carbon tetrachloride	11.02	117	774506	8.78	ppbv		98
31) Benzene	11.30	78	1118892	8.39	ppbv		98
32) 1,2-Dichloroethane	11.38	62	454358	8.77	ppbv		98
34) Heptane	11.35	43	1019100	9.22	ppbv	#	93
35) Trichloroethene	12.03	130	571098	7.84	ppbv		94
36) 1,2-Dichloropropane	12.39	63	442269	7.70	ppbv		96
37) 1,4-Dioxane	12.46	88	192720	7.05	ppbv		91
38) Bromodichloromethane	12.68	83	819698	7.97	ppbv		99
39) cis-1,3-Dichloropropene	13.23	75	659057	7.61	ppbv		97
40) 4-Methyl-2-pentanone	13.34	58	375823	8.47	ppbv		92
41) Toluene	13.63	91	1273032	7.92	ppbv		98
42) trans-1,3-Dichloropropene	13.94	75	544094	7.41	ppbv		97
43) 1,1,2-Trichloroethane	14.21	97	439764	7.84	ppbv		96
44) Tetrachloroethene	14.33	166	675949	8.48	ppbv		98
45) 2-Hexanone	14.41	43	797611	8.59	ppbv		98
46) Chlorodibromomethane	14.76	129	688927	8.25	ppbv		99
47) 1,2-Dibromoethane	14.99	107	633675	8.00	ppbv		100
49) Chlorobenzene	15.59	112	837676	7.99	ppbv	#	91
50) Ethylbenzene	15.63	91	1400816	8.16	ppbv		94
51) m,p-Xylene	15.78	91	2193790	16.17	ppbv		93
52) o-Xylene	16.37	91	1053205	8.37	ppbv	#	91

(#) = qualifier out of range (m) = manual integration
01051203.D 010212V1.M Mon Jan 09 17:50:34 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010512\01051203.D Vial: 3
Acq On : 5 Jan 2012 12:08 pm Operator: RACHEL HILL
Sample : CCV VOA1 010512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 5 12:33 2012 Quant Results File: 010212V1.RES

Quant Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
DataAcq Meth : 010212V1

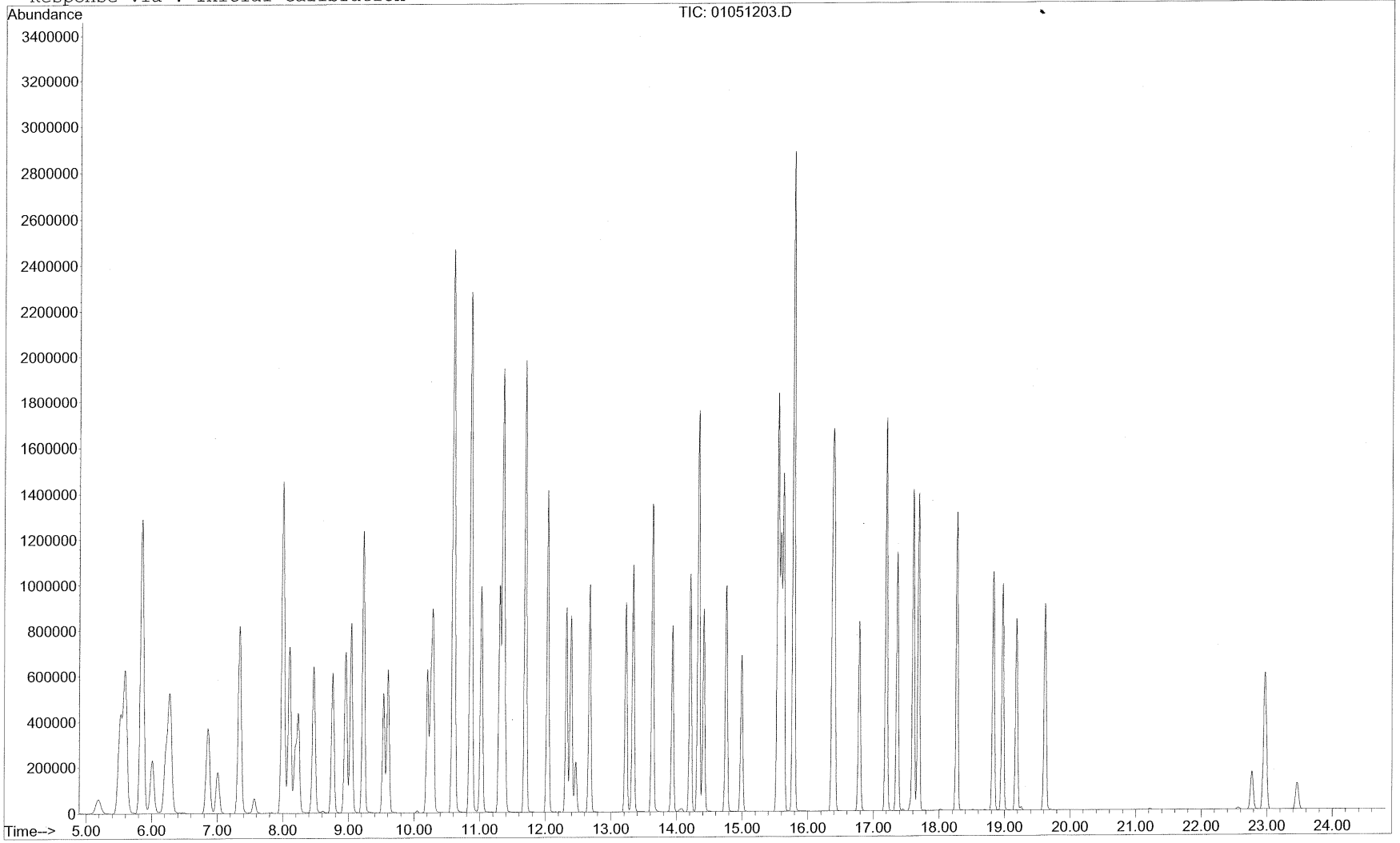
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53) Styrene	16.40	104	780680	8.28	ppbv		98
54) Bromoform	16.79	173	536916	7.98	ppbv	#	98
56) 1,1,2,2-Tetrachloroethane	17.36	83	821820	8.54	ppbv	#	99
57) 4-Ethyltoluene	17.60	105	1243659	8.14	ppbv		95
58) 1,3,5-Trimethylbenzene	17.69	105	1019064	8.02	ppbv		97
59) 1,2,4-Trimethylbenzene	18.27	105	986332	8.26	ppbv		97
60) 1,3-Dichlorobenzene	18.83	146	608949	8.22	ppbv		99
61) 1,4-Dichlorobenzene	18.97	146	574065	8.28	ppbv		98
62) Benzyl chloride	19.18	91	885869	8.26	ppbv		97
63) 1,2-Dichlorobenzene	19.62	146	563329	8.31	ppbv		98
64) 1,2,4-Trichlorobenzene	22.77	180	109081	7.46	ppbv		96
65) Hexachlorobutadiene	22.97	225	255482	7.62	ppbv		99
66) Naphthalene	23.47	128	194861	7.42	ppbv		99

(#) = qualifier out of range (m) = manual integration
01051203.D 010212V1.M Mon Jan 09 17:50:34 2012 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010512\01051203.D Vial: 3
Acq On : 5 Jan 2012 12:08 pm Operator: RACHEL HILL
Sample : CCV VOA1 010512 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 5 12:33 2012 Quant Results File: 010212V1.RES

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120110A **Run No.:** 45391

Analytical Run Date: 1/10/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 011012	BFB_TUNE	TUNE	R45391	1/10/2012 10:53:00 AM	Robert Lynch		
1ppbv ICAL 01101	EPA_TO15	ICAL	R45391	1/10/2012 1:10:00 PM	Robert Lynch		
10ppbv ICAL 0110	EPA_TO15	ICAL	R45391	1/10/2012 1:56:00 PM	Robert Lynch		
12ppbv ICAL 0110	EPA_TO15	ICAL	R45391	1/10/2012 2:41:00 PM	Robert Lynch		
15ppbv ICAL 0110	EPA_TO15	ICAL	R45391	1/10/2012 3:28:00 PM	Robert Lynch		
20ppbv ICAL 0110	EPA_TO15	ICAL	R45391	1/10/2012 4:14:00 PM	Robert Lynch		
30ppbv ICAL 0110	EPA_TO15	ICAL	R45391	1/10/2012 5:00:00 PM	Robert Lynch		
50ppbv ICAL 0110	EPA_TO15	ICAL	R45391	1/10/2012 5:49:00 PM	Robert Lynch		
BFB2 VOA1 011012	BFB_TUNE	TUNE	R45391	1/10/2012 6:33:00 PM	Robert Lynch		
ICV VOA1 011012	EPA_TO15	ICV	R45391	1/10/2012 7:19:00 PM	Robert Lynch		
RLVS VOA1 011012	EPA_TO15	RLVS	R45391	1/10/2012 8:20:00 PM	Robert Lynch		
Blank VOA1 01101	EPA_TO15	MBLK	R45391	1/10/2012 9:12:00 PM	Charles O`Bryan		
1112696-038A	EPA_TO15	SAMP	R45391	1/10/2012 10:04:00 PM	Robert Lynch		
1112696-017A	EPA_TO15	SAMP	R45391	1/10/2012 10:49:00 PM	Robert Lynch		
1112696-018A	EPA_TO15	SAMP	R45391	1/10/2012 11:34:00 PM	Robert Lynch		
1112696-018Adup	EPA_TO15	DUP	R45391	1/11/2012 12:20:00 AM	Charles O`Bryan		
1112696-019A	EPA_TO15	SAMP	R45391	1/11/2012 7:06:00 AM	Robert Lynch		
1112696-006A	EPA_TO15	SAMP	R45391	1/11/2012 7:51:00 AM	Robert Lynch		
1112696-007A	EPA_TO15	SAMP	R45391	1/11/2012 8:36:00 AM	Robert Lynch		
1112543-001A	EPA_TO15	SAMP	R45391	1/11/2012 9:28:00 AM	Robert Lynch		
1112543-002A	EPA_TO15	SAMP	R45391	1/11/2012 10:15:00 AM	Robert Lynch		
1112543-003A	EPA_TO15	SAMP	R45391	1/11/2012 11:04:00 AM	Robert Lynch		
1112543-004A	EPA_TO15	SAMP	R45391	1/11/2012 11:53:00 AM	Robert Lynch		
1112543-005A	EPA_TO15	SAMP	R45391	1/11/2012 12:42:00 PM	Robert Lynch		
1112543-006A	EPA_TO15	SAMP	R45391	1/11/2012 1:30:00 PM	Robert Lynch		
1112543-007A	EPA_TO15	SAMP	R45391	1/11/2012 2:19:00 PM	Robert Lynch		
1112543-008A	EPA_TO15	SAMP	R45391	1/11/2012 3:09:00 PM	Robert Lynch		
1112696-008A	EPA_TO15	SAMP	R45391	1/11/2012 3:55:00 PM	Robert Lynch		
RLVS2 VOA1 01101	EPA_TO15	RLVS	R45391	1/11/2012 4:42:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892783	BFB2 VOA1 011012	BFB_TUNE	TUNE	:\1\DATA\011012	1/10/2012 6:33:0	1	R45391		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		86.6	86.6		100	0	0	0	0	0	87%	50	120	0%	
175	M		7.1	7.1		100	0	0	0	0	0	7%	4	9	0%	
176	M		99.3	99.3		100	0	0	0	0	0	99%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		18	18		100	0	0	0	0	0	18%	8	40	0%	
75	M		42.8	42.8		100	0	0	0	0	0	43%	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
892791	ICV VOA1 011012	EPA_TO15	ICV	:\1\DATA\011012	1/10/2012 7:19:0	1	R45391		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	10.9	10.9		9.6	0	0	0.107	1	0	114%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.76	11.76		10	0	0	0.211	1	0	118%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.12	11.12		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	11.03	11.03		9.8	0	0	0.2	1	0	113%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.56	10.56		9.7	0	0	0.111	1	0	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.17	11.17		9.9	0	0	0.097	1	0	113%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.04	9.04		9.1	0	0	0.271	1	0	99%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	11.36	11.36		9.8	0	0	0.245	1	0	116%	70	130	0%	
1,2-Dibromoethane	A	ppbv	11.04	11.04		9.6	0	0	0.186	1	0	115%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.4	11.4		9.7	0	0	0.208	1	0	118%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.96	10.96		9.7	0	0	0.196	1	0	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.29	11.29		9.8	0	0	0.224	1	0	115%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.97	10.97		9.7	0	0	0.24	1	0	113%	70	130	0%	
1,3-Butadiene	A	ppbv	11.47	11.47		9.8	0	0	0.152	1	0	117%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	11.2	11.2		9.7	0	0	0.202	1	0	115%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	11.09	11.09		9.6	0	0	0.194	1	0	116%	70	130	0%	
1,4-Dioxane	A	ppbv	11.09	11.09		9.6	0	0	0.128	1	0	116%	70	130	0%	
2-Butanone	A	ppbv	10.65	10.65		9.9	0	0	0.287	1	0	108%	70	130	0%	
2-Hexanone	A	ppbv	11.64	11.64		9.8	0	0	0.135	1	0	119%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892791	ICV VOA1 011012	EPA_TO15	ICV	\1\DATA\011012	1/10/2012 7:19:0	1	R45391		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
2-Propanol	A	ppbv	11.51	11.51		10.1	0	0	0.329	1	0	114%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.7	11.7		10	0	0	0.157	1	0	117%	70	130	0%	
Acetone	A	ppbv	11.35	11.35		10	0	0	0.43	1	0	114%	70	130	0%	
Benzene	A	ppbv	10.66	10.66		9.6	0	0	0.126	1	0	111%	70	130	0%	
Benzyl chloride	A	ppbv	10.72	10.72		9.7	0	0	0.155	1	0	111%	70	130	0%	
Bromodichloromethane	A	ppbv	10.97	10.97		9.6	0	0	0.156	1	0	114%	70	130	0%	
Bromoform	A	ppbv	11.11	11.11		9.6	0	0	0.197	1	0	116%	70	130	0%	
Bromomethane	A	ppbv	10.03	10.03		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.81	10.81		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.36	10.36		9.5	0	0	0.114	1	0	109%	70	130	0%	
Chlorobenzene	A	ppbv	11.35	11.35		9.9	0	0	0.275	1	0	115%	70	130	0%	
Chlorodibromomethane	A	ppbv	11.1	11.1		9.2	0	0	0.165	1	0	121%	70	130	0%	
Chloroethane	A	ppbv	10.11	10.11		9.8	0	0	0.063	1	0	103%	70	130	0%	
Chloroform	A	ppbv	11.14	11.14		9.4	0	0	0.126	1	0	119%	70	130	0%	
Chloromethane	A	ppbv	10.6	10.6		9.8	0	0	0.104	1	0	108%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.56	10.56		9.8	0	0	0.107	1	0	108%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.9	10.9		9.5	0	0	0.166	1	0	115%	70	130	0%	
Cyclohexane	A	ppbv	11.46	11.46		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.65	9.65		9.2	0	0	0.086	1	0	105%	70	130	0%	
Ethanol	A	ppbv	10.44	10.44		9.2	0	0	1.962	5	0	113%	70	130	0%	
Ethyl acetate	A	ppbv	11.27	11.27		9.8	0	0	0.157	1	0	115%	70	130	0%	
Ethylbenzene	A	ppbv	11.42	11.42		9.8	0	0	0.737	2	0	117%	70	130	0%	
Heptane	A	ppbv	11.94	11.94		9.9	0	0	0.249	1	0	121%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.42	9.42		9.4	0	0	0.374	2	0	100%	70	130	0%	
m,p-Xylene	A	ppbv	23.73	23.73		19.2	0	0	0.524	2	0	124%	70	130	0%	
Methylene chloride	A	ppbv	10.87	10.87		10	0	0	2.077	5	0	109%	70	130	0%	
n-Hexane	A	ppbv	11.19	11.19		10.1	0	0	0.692	2	0	111%	70	130	0%	
Naphthalene	A	ppbv	9.14	9.14		9.2	0	0	0.247	1	0	99%	70	130	0%	
o-Xylene	A	ppbv	11.64	11.64		10	0	0	0.258	1	0	116%	70	130	0%	
Propylene	A	ppbv	10.82	10.82		10.2	0	0	0.075	1	0	106%	70	130	0%	
Styrene	A	ppbv	11.35	11.35		9.8	0	0	0.263	1	0	116%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.04	11.04		9.9	0	0	0.228	1	0	112%	70	130	0%	
Tetrachloroethene	A	ppbv	11.07	11.07		9.6	0	0	0.148	1	0	115%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.74	11.74		10	0	0	0.201	1	0	117%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892791	ICV VOA1 011012	EPA_TO15	ICV	\1\DATA\011012	1/10/2012 7:19:0	1	R45391		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Toluene	A	ppbv	11.27	11.27		9.8	0	0	0.158	1	0	115%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.94	10.94		9.8	0	0	0.117	1	0	112%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.5	10.5		9.1	0	0	0.171	1	0	115%	70	130	0%	
Trichloroethene	A	ppbv	10.81	10.81		9.6	0	0	0.119	1	0	113%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.66	10.66		9.6	0	0	0.148	1	0	111%	70	130	0%	
Vinyl acetate	A	ppbv	11.73	11.73		9.9	0	0	0.266	1	0	118%	70	130	0%	
Vinyl chloride	A	ppbv	11.88	11.88		9.4	0	0	0.072	1	0	126%	70	130	0%	
Xylenes, Total	C	ppbv	35.37	35.37		29.2	0	0	0.782	3	0	121%	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	12.82	12.82		12.5	0	0	0	0	0	103%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892792	RLVS VOA1 011012	EPA_TO15	RLVS	\1\DATA\011012	1/10/2012 8:20:0	1	R45391		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	0.87	0.87		0.996	0	0	0.107	1	0	87%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.19	1.19		1	0	0	0.211	1	0	119%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.89	0.89		0.98	0	0	0.108	1	0	91%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.84	0.84		0.98	0	0	0.2	1	0	86%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.97	0.97		0.97	0	0	0.111	1	0	100%	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	1.09	1.09		0.91	0	0	0.271	1	0	120%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.23	1.23		0.98	0	0	0.245	1	0	126%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.81	0.81		0.96	0	0	0.186	1	0	84%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.23	1.23		0.97	0	0	0.208	1	0	127%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.05	1.05		0.97	0	0	0.196	1	0	108%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.92	0.92		0.98	0	0	0.224	1	0	94%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	1.19	1.19		0.97	0	0	0.24	1	0	123%	70	130	0%	
1,3-Butadiene	A	ppbv	1.06	1.06		0.98	0	0	0.152	1	0	108%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	1.15	1.15		0.97	0	0	0.202	1	0	119%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	1.07	1.07		0.96	0	0	0.194	1	0	111%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011012\01101212.D Vial: 1
Acq On : 10 Jan 2012 7:19 pm Operator: RACHEL HILL
Sample : ICV VOA1 011012 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 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	115	0.00
2	T	Propylene	1.115	1.182	-6.0	106	0.02
3	T	Dichlorodifluoromethane	3.188	3.345	-4.9	103	0.02
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.363	2.460	-4.1	102	0.01
5	T	Chloromethane	1.171	1.306	-11.5	111	0.00
6	T	Vinyl chloride	1.357	1.715	-26.4	112	0.02
7	T	1,3-Butadiene	1.038	1.215	-17.1	110	0.01
8	T	Bromomethane	1.287	1.389	-7.9	110	0.00
9	T	Chloroethane	0.747	0.821	-9.9	110	0.00
10	T	Trichlorofluoromethane	2.751	3.056	-11.1	114	0.00
11	T	Ethanol	0.293	0.333	-13.7	118	0.00
12	T	Freon113	2.310	2.620	-13.4	114	0.00
13	T	1,1-Dichloroethene	1.756	1.982	-12.9	113	0.00
14	T	Acetone	1.671	1.896	-13.5	118	0.00
15	T	Carbon disulfide	3.310	3.689	-11.5	111	0.00
16	T	2-Propanol	1.472	1.677	-13.9	114	0.00
17	T	Methylene chloride	1.351	1.468	-8.7	112	0.00
18	T	tert-Butyl Methyl Ether	2.519	2.810	-11.6	120	0.00
19	T	trans-1,2-Dichloroethene	1.684	1.880	-11.6	115	0.00
20	T	n-Hexane	1.856	2.056	-10.8	112	0.00
21	T	1,1-Dichloroethane	2.072	2.255	-8.8	113	0.00
22	T	Vinyl acetate	2.586	3.064	-18.5	119	0.00
23	T	cis-1,2-Dichloroethene	1.186	1.279	-7.8	114	0.00
24	T	2-Butanone	1.838	1.978	-7.6	115	0.00
25	T	Ethyl acetate	2.346	2.698	-15.0	118	0.00
26	T	Tetrahydrofuran	1.124	1.320	-17.4	116	0.00
27	T	Chloroform	2.194	2.494	-13.7	115	0.00
28	T	1,1,1-Trichloroethane	2.085	2.368	-13.6	116	0.00
29	T	Cyclohexane	1.831	2.141	-16.9	114	0.00
30	T	Carbon tetrachloride	1.978	2.158	-9.1	114	0.00
31	T	Benzene	3.018	3.352	-11.1	116	0.00
32	T	1,2-Dichloroethane	1.204	1.361	-13.0	118	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	112	0.00
34	T	Heptane	0.735	0.887	-20.7	114	0.00
35	T	Trichloroethene	0.481	0.542	-12.7	115	0.00
36	T	1,2-Dichloropropane	0.385	0.443	-15.1	116	0.00
37	T	1,4-Dioxane	0.150	0.173	-15.3	114	0.00
38	T	Bromodichloromethane	0.695	0.794	-14.2	115	0.00
39	T	cis-1,3-Dichloropropene	0.570	0.654	-14.7	115	0.00
40	T	4-Methyl-2-pentanone	0.251	0.293	-16.7	115	0.00
41	T	Toluene	1.078	1.239	-14.9	115	0.00
42	T	trans-1,3-Dichloropropene	0.484	0.558	-15.3	114	0.00
43	T	1,1,2-Trichloroethane	0.374	0.421	-12.6	114	0.00
44	T	Tetrachloroethene	0.553	0.638	-15.4	113	0.00
45	T	2-Hexanone	0.509	0.605	-18.9	114	0.00
46	T	Chlorodibromomethane	0.576	0.652	-13.2	114	0.00
47	T	1,2-Dibromoethane	0.537	0.617	-14.9	114	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
49	T	Chlorobenzene	1.011	1.159	-14.6	112	0.00
50	T	Ethylbenzene	1.653	1.926	-16.5	112	0.00
51	T	m,p-Xylene	1.258	1.555	-23.6	114	0.00
52	T	o-Xylene	1.210	1.408	-16.4	112	0.00
53	T	Styrene	0.907	1.050	-15.8	111	0.00
54	T	Bromoform	0.653	0.756	-15.8	113	0.00
55	S	4-Bromofluorobenzene	0.588	0.603	-2.6	111	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011012\01101212.D Vial: 1
Acq On : 10 Jan 2012 7:19 pm Operator: RACHEL HILL
Sample : ICV VOA1 011012 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 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	0.875	1.029	-17.6	113	0.00
57	T	4-Ethyltoluene	1.418	1.604	-13.1	113	0.00
58	T	1,3,5-Trimethylbenzene	1.178	1.332	-13.1	113	0.00
59	T	1,2,4-Trimethylbenzene	1.089	1.262	-15.9	114	0.00
60	T	1,3-Dichlorobenzene	0.686	0.792	-15.5	113	0.00
61	T	1,4-Dichlorobenzene	0.644	0.743	-15.4	112	0.00
62	T	Benzyl chloride	0.936	1.034	-10.5	114	0.00
63	T	1,2-Dichlorobenzene	0.605	0.711	-17.5	112	0.00
64	T	1,2,4-Trichlorobenzene	0.137	0.136	0.7	107	0.00
65	T	Hexachlorobutadiene	0.319	0.320	-0.3	107	0.00
66		Naphthalene	0.220	0.219	0.5	107	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011012\01101212.D Vial: 1
Acq On : 10 Jan 2012 7:19 pm Operator: RACHEL HILL
Sample : ICV VOA1 011012 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 11 9:22 2012 Quant Results File: 011012V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 2012
Response via : Initial Calibration
DataAcq Meth : 011012V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	534058	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1548702	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1050081	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	633606	12.82	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 102.56%				
Target Compounds							Qvalue
2) Propylene	5.52	41	515314	10.82	ppbv		99
3) Dichlorodifluoromethane	5.59	85	1314919	9.65	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	998464	9.89	ppbv	#	78
5) Chloromethane	6.00	50	530180	10.60	ppbv		99
6) Vinyl chloride	6.22	62	688670	11.88	ppbv		99
7) 1,3-Butadiene	6.27	39	508772	11.47	ppbv		97
8) Bromomethane	6.85	94	551951	10.03	ppbv		99
9) Chloroethane	7.00	64	322731	10.11	ppbv		99
10) Trichlorofluoromethane	7.34	101	1253392	10.66	ppbv		99
11) Ethanol	7.56	45	130793	10.44	ppbv		100
12) Freon113	8.00	101	1097193	11.12	ppbv		91
13) 1,1-Dichloroethene	8.09	61	838274	11.17	ppbv		94
14) Acetone	8.18	43	810115	11.35	ppbv		98
15) Carbon disulfide	8.47	76	1528795	10.81	ppbv	#	100
16) 2-Propanol	8.23	45	723837	11.51	ppbv		88
17) Methylene chloride	8.75	49	627319	10.87	ppbv		91
18) tert-Butyl Methyl Ether	8.95	73	1188506	11.04	ppbv	#	93
19) trans-1,2-Dichloroethene	9.04	61	787143	10.94	ppbv		92
20) n-Hexane	9.22	57	887008	11.19	ppbv		98
21) 1,1-Dichloroethane	9.60	63	934451	10.56	ppbv		99
22) Vinyl acetate	9.53	43	1296024	11.73	ppbv		98
23) cis-1,2-Dichloroethene	10.28	96	535318	10.56	ppbv		92
24) 2-Butanone	10.24	43	836771	10.65	ppbv		96
25) Ethyl acetate	10.20	43	1129808	11.27	ppbv	#	100
26) Tetrahydrofuran	10.58	42	564031	11.74	ppbv		96
27) Chloroform	10.60	83	1044139	11.14	ppbv		100
28) 1,1,1-Trichloroethane	10.86	97	971119	10.90	ppbv		97
29) Cyclohexane	10.86	56	896299	11.46	ppbv		95
30) Carbon tetrachloride	11.02	117	875874	10.36	ppbv		98
31) Benzene	11.30	78	1374992	10.66	ppbv		98
32) 1,2-Dichloroethane	11.37	62	563873	10.96	ppbv		98
34) Heptane	11.35	43	1087673	11.94	ppbv		95
35) Trichloroethene	12.03	130	644317	10.81	ppbv		95
36) 1,2-Dichloropropane	12.38	63	538256	11.29	ppbv		96
37) 1,4-Dioxane	12.46	88	205845	11.09	ppbv		92
38) Bromodichloromethane	12.67	83	944676	10.97	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	769787	10.90	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	363312	11.70	ppbv		92
41) Toluene	13.63	91	1504408	11.27	ppbv		98
42) trans-1,3-Dichloropropene	13.93	75	629350	10.50	ppbv		98
43) 1,1,2-Trichloroethane	14.20	97	510625	11.03	ppbv		97
44) Tetrachloroethene	14.33	166	758534	11.07	ppbv		99
45) 2-Hexanone	14.41	43	734868	11.64	ppbv		98
46) Chlorodibromomethane	14.75	129	791849	11.10	ppbv		99
47) 1,2-Dibromoethane	14.99	107	734193	11.04	ppbv		100
49) Chlorobenzene	15.58	112	964066	11.35	ppbv		94
50) Ethylbenzene	15.63	91	1585824	11.42	ppbv		95
51) m,p-Xylene	15.78	91	2507299	23.73	ppbv		95
52) o-Xylene	16.37	91	1182542	11.64	ppbv	#	93

(#) = qualifier out of range (m) = manual integration
01101212.D 011012V1.M Wed Jan 11 17:36:08 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011012\01101212.D Vial: 1
Acq On : 10 Jan 2012 7:19 pm Operator: RACHEL HILL
Sample : ICV VOA1 011012 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 11 9:22 2012 Quant Results File: 011012V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 2012
Response via : Initial Calibration
DataAcq Meth : 011012V1

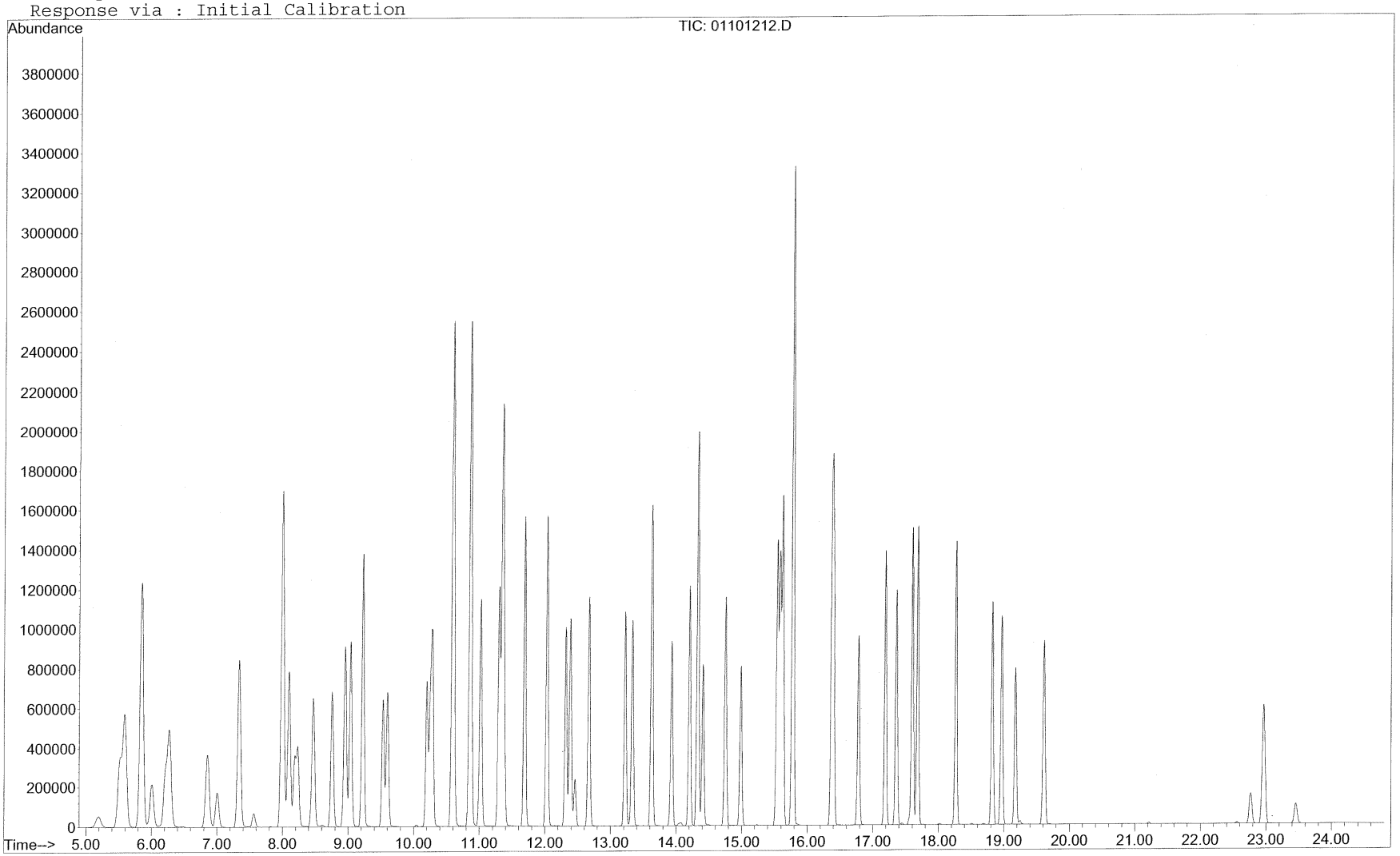
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53) Styrene	16.39	104	864668	11.35	ppbv		99
54) Bromoform	16.78	173	609665	11.11	ppbv		98
56) 1,1,2,2-Tetrachloroethane	17.36	83	864563	11.76	ppbv	#	99
57) 4-Ethyltoluene	17.60	105	1320842	11.09	ppbv		96
58) 1,3,5-Trimethylbenzene	17.68	105	1085335	10.97	ppbv		97
59) 1,2,4-Trimethylbenzene	18.27	105	1039301	11.36	ppbv		97
60) 1,3-Dichlorobenzene	18.82	146	645233	11.20	ppbv		99
61) 1,4-Dichlorobenzene	18.96	146	599562	11.09	ppbv		98
62) Benzyl chloride	19.17	91	842906	10.72	ppbv		97
63) 1,2-Dichlorobenzene	19.61	146	579737	11.40	ppbv		98
64) 1,2,4-Trichlorobenzene	22.77	180	103773	9.04	ppbv		97
65) Hexachlorobutadiene	22.96	225	252703	9.42	ppbv		99
66) Naphthalene	23.46	128	168885	9.14	ppbv		99

(#) = qualifier out of range (m) = manual integration
01101212.D 011012V1.M Wed Jan 11 17:36:08 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011012\01101212.D Vial: 1
Acq On : 10 Jan 2012 7:19 pm Operator: RACHEL HILL
Sample : ICV VOA1 011012 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 11 9:22 2012 Quant Results File: 011012V1.RES

Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120111B **Run No.:** 45481

Analytical Run Date: 1/11/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 45422 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

Run Comments: Instrument malfunction caused run to stop partially complete. Only reported appropriate samples, with good QC. Ran ending RLVS first thing in morning, but out of time clock.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB VOA1 011112	BFB_TUNE	TUNE	R45481	1/12/2012 4:33:00 AM	Robert Lynch		
ICV VOA1 011112	EPA_TO15	ICV	R45481	1/12/2012 10:47:00 AM	Robert Lynch		
RLVS VOA1 011112	EPA_TO15	RLVS	R45481	1/12/2012 11:47:00 AM	Robert Lynch		
MBLK VOA1 011112	EPA_TO15	MBLK	R45481	1/12/2012 12:47:00 PM	Charles O`Bryan		
1112696-010A	EPA_TO15	SAMP	R45481	1/12/2012 1:33:00 PM	Robert Lynch		
1112696-010ADUP	EPA_TO15	DUP	R45481	1/12/2012 2:18:00 PM	Charles O`Bryan		
1112859-005A	EPA_TO15	SAMP	R45481	1/12/2012 3:05:00 PM	Robert Lynch		
1112859-005A	EPA_TO15	SAMP	R45481	1/12/2012 4:41:00 PM	Robert Lynch		Isobutylene @ 3.52ppbv (2x multiplier factored in)
RLVS2 VOA1 01111	EPA_TO15	RLVS	R45481	1/13/2012 10:49:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jan-12

RunNo 45481

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
894164	BFB VOA1 011112	BFB_TUNE	TUNE	\1\DATA\011112	1/12/2012 4:33:0	1	R45481		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		71.2	71.2		100	0	0	0	0	0	71%	50	120	0%	
175	M		8.1	8.1		100	0	0	0	0	0	8%	4	9	0%	
176	M		99.8	99.8		100	0	0	0	0	0	100%	93	101	0%	
177	M		7.5	7.5		100	0	0	0	0	0	8%	5	9	0%	
50	M		20.3	20.3		100	0	0	0	0	0	20%	8	40	0%	
75	M		44.6	44.6		100	0	0	0	0	0	45%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		7.4	7.4		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
894165	ICV VOA1 011112	EPA_TO15	ICV	\1\DATA\011112	1/12/2012 10:47:	1	R45481		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	9.73	9.73		9.6	0	0	0.107	1	0	101%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.61	9.61		10	0	0	0.211	1	0	96%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.56	10.56		9.8	0	0	0.108	1	0	108%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.13	9.13		9.8	0	0	0.2	1	0	93%	70	130	0%	
1,1-Dichloroethane	A	ppbv	9.42	9.42		9.7	0	0	0.111	1	0	97%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.45	10.45		9.9	0	0	0.097	1	0	106%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.19	9.19		9.1	0	0	0.271	1	0	101%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.77	9.77		9.8	0	0	0.245	1	0	100%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.36	9.36		9.6	0	0	0.186	1	0	98%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.69	10.69		9.7	0	0	0.208	1	0	110%	70	130	0%	
1,2-Dichloroethane	A	ppbv	8.96	8.96		9.7	0	0	0.196	1	0	92%	70	130	0%	
1,2-Dichloropropane	A	ppbv	8.37	8.37		9.8	0	0	0.224	1	0	85%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.19	9.19		9.7	0	0	0.24	1	0	95%	70	130	0%	
1,3-Butadiene	A	ppbv	10.55	10.55		9.8	0	0	0.152	1	0	108%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.27	10.27		9.7	0	0	0.202	1	0	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
894165	ICV VOA1 011112	EPA_TO15	ICV	\1\DATA\011112	1/12/2012 10:47:	1	R45481		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	10.17	10.17		9.6	0	0	0.194	1	0	106%	70	130	0%	
1,4-Dioxane	A	ppbv	9.42	9.42		9.6	0	0	0.128	1	0	98%	70	130	0%	
2-Butanone	A	ppbv	9.13	9.13		9.9	0	0	0.287	1	0	92%	70	130	0%	
2-Hexanone	A	ppbv	8.52	8.52		9.8	0	0	0.135	1	0	87%	70	130	0%	
2-Propanol	A	ppbv	9.73	9.73		10.1	0	0	0.329	1	0	96%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	8.78	8.78		10	0	0	0.157	1	0	88%	70	130	0%	
Acetone	A	ppbv	8.79	8.79		10	0	0	0.43	1	0	88%	70	130	0%	
Benzene	A	ppbv	9.25	9.25		9.6	0	0	0.126	1	0	96%	70	130	0%	
Benzyl chloride	A	ppbv	10.15	10.15		9.7	0	0	0.155	1	0	105%	70	130	0%	
Bromodichloromethane	A	ppbv	8.89	8.89		9.6	0	0	0.156	1	0	93%	70	130	0%	
Bromoform	A	ppbv	9.52	9.52		9.6	0	0	0.197	1	0	99%	70	130	0%	
Bromomethane	A	ppbv	10.03	10.03		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.62	10.62		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.8	9.8		9.5	0	0	0.114	1	0	103%	70	130	0%	
Chlorobenzene	A	ppbv	9.23	9.23		9.9	0	0	0.275	1	0	93%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.47	9.47		9.2	0	0	0.165	1	0	103%	70	130	0%	
Chloroethane	A	ppbv	9.7	9.7		9.8	0	0	0.063	1	0	99%	70	130	0%	
Chloroform	A	ppbv	9.72	9.72		9.4	0	0	0.126	1	0	103%	70	130	0%	
Chloromethane	A	ppbv	9.23	9.23		9.8	0	0	0.104	1	0	94%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	9.91	9.91		9.8	0	0	0.107	1	0	101%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.54	8.54		9.5	0	0	0.166	1	0	90%	70	130	0%	
Cyclohexane	A	ppbv	9.79	9.79		9.8	0	0	0.684	2	0	100%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.68	9.68		9.2	0	0	0.086	1	0	105%	70	130	0%	
Ethanol	A	ppbv	8.81	8.81		9.2	0	0	1.962	5	0	96%	70	130	0%	
Ethyl acetate	A	ppbv	9	9		9.8	0	0	0.157	1	0	92%	70	130	0%	
Ethylbenzene	A	ppbv	8.91	8.91		9.8	0	0	0.737	2	0	91%	70	130	0%	
Heptane	A	ppbv	8.81	8.81		9.9	0	0	0.249	1	0	89%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.93	8.93		9.4	0	0	0.374	2	0	95%	70	130	0%	
m,p-Xylene	A	ppbv	17.96	17.96		19.2	0	0	0.524	2	0	94%	70	130	0%	
Methylene chloride	A	ppbv	9.5	9.5		10	0	0	2.077	5	0	95%	70	130	0%	
n-Hexane	A	ppbv	9.77	9.77		10.1	0	0	0.692	2	0	97%	70	130	0%	
Naphthalene	A	ppbv	9.65	9.65		9.2	0	0	0.247	1	0	105%	70	130	0%	
o-Xylene	A	ppbv	9.19	9.19		10	0	0	0.258	1	0	92%	70	130	0%	
Propylene	A	ppbv	10.23	10.23		10.2	0	0	0.075	1	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
894165	ICV VOA1 011112	EPA_TO15	ICV	\1\DATA\011112	1/12/2012 10:47:	1	R45481		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.31	9.31		9.8	0	0	0.263	1	0	95%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	8.99	8.99		9.9	0	0	0.228	1	0	91%	70	130	0%	
Tetrachloroethene	A	ppbv	9.72	9.72		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	9.15	9.15		10	0	0	0.201	1	0	92%	70	130	0%	
Toluene	A	ppbv	9.03	9.03		9.8	0	0	0.158	1	0	92%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	9.57	9.57		9.8	0	0	0.117	1	0	98%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.39	8.39		9.1	0	0	0.171	1	0	92%	70	130	0%	
Trichloroethene	A	ppbv	9.37	9.37		9.6	0	0	0.119	1	0	98%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.41	10.41		9.6	0	0	0.148	1	0	108%	70	130	0%	
Vinyl acetate	A	ppbv	9.06	9.06		9.9	0	0	0.266	1	0	92%	70	130	0%	
Vinyl chloride	A	ppbv	10.63	10.63		9.4	0	0	0.072	1	0	113%	70	130	0%	
Xylenes, Total	C	ppbv	27.15	27.15		29.2	0	0	0.782	3	0	93%	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	12.67	12.67		12.5	0	0	0	0	0	101%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
894166	RLVS VOA1 011112	EPA_TO15	RLVS	\1\DATA\011112	1/12/2012 11:47:	1	R45481		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.91	0.91		0.996	0	0	0.107	1	0	91%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.2	1.2		1	0	0	0.211	1	0	120%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.92	0.92		0.98	0	0	0.108	1	0	94%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.87	0.87		0.98	0	0	0.2	1	0	89%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.94	0.94		0.97	0	0	0.111	1	0	97%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.9	0.9		0.99	0	0	0.097	1	0	91%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.33	1.33		0.91	0	0	0.271	1	0	146%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.29	1.29		0.98	0	0	0.245	1	0	132%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.88	0.88		0.96	0	0	0.186	1	0	92%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.36	1.36		0.97	0	0	0.208	1	0	140%	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	0.86	0.86		0.98	0	0	0.224	1	0	88%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011112\01111214.D Vial: 3
Acq On : 12 Jan 2012 10:47 am Operator: RACHEL HILL
Sample : ICV VOA1 011112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 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	140	0.00
2	T	Propylene	1.212	1.216	-0.3	117	0.00
3	T	Dichlorodifluoromethane	3.419	3.598	-5.2	126	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.432	2.643	-8.7	134	0.00
5	T	Chloromethane	1.283	1.246	2.9	110	0.00
6	T	Vinyl chloride	1.430	1.618	-13.1	115	0.00
7	T	1,3-Butadiene	1.115	1.200	-7.6	116	0.00
8	T	Bromomethane	1.327	1.431	-7.8	130	0.00
9	T	Chloroethane	0.770	0.812	-5.5	125	0.00
10	T	Trichlorofluoromethane	2.885	3.128	-8.4	140	0.00
11	T	Ethanol	0.280	0.268	4.3	117	0.00
12	T	Freon113	2.327	2.508	-7.8	135	0.00
13	T	1,1-Dichloroethene	1.817	1.919	-5.6	125	0.00
14	T	Acetone	1.580	1.389	12.1	110	0.00
15	T	Carbon disulfide	3.427	3.751	-9.5	132	0.00
16	T	2-Propanol	1.441	1.388	3.7	114	0.00
17	T	Methylene chloride	1.375	1.306	5.0	119	0.00
18	T	tert-Butyl Methyl Ether	2.305	2.094	9.2	120	0.00
19	T	trans-1,2-Dichloroethene	1.683	1.643	2.4	123	0.00
20	T	n-Hexane	1.838	1.777	3.3	119	0.00
21	T	1,1-Dichloroethane	2.028	1.970	2.9	123	0.00
22	T	Vinyl acetate	2.419	2.213	8.5	110	0.00
23	T	cis-1,2-Dichloroethene	1.143	1.156	-1.1	132	0.00
24	T	2-Butanone	1.690	1.559	7.8	113	0.00
25	T	Ethyl acetate	2.199	2.020	8.1	114	0.00
26	T	Tetrahydrofuran	1.062	0.972	8.5	105	0.00
27	T	Chloroform	2.154	2.136	0.8	122	0.00
28	T	1,1,1-Trichloroethane	2.040	2.068	-1.4	126	0.00
29	T	Cyclohexane	1.805	1.803	0.1	116	0.00
30	T	Carbon tetrachloride	1.898	1.957	-3.1	132	0.00
31	T	Benzene	2.744	2.643	3.7	120	0.00
32	T	1,2-Dichloroethane	1.143	1.056	7.6	116	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	146	0.00
34	T	Heptane	0.725	0.645	11.0	112	0.00
35	T	Trichloroethene	0.447	0.436	2.5	136	0.00
36	T	1,2-Dichloropropane	0.354	0.302	14.7	116	0.00
37	T	1,4-Dioxane	0.133	0.131	1.5	128	0.00
38	T	Bromodichloromethane	0.654	0.605	7.5	126	0.00
39	T	cis-1,3-Dichloropropene	0.523	0.470	10.1	122	0.00
40	T	4-Methyl-2-pentanone	0.230	0.202	12.2	114	0.00
41	T	Toluene	0.982	0.904	7.9	123	0.00
42	T	trans-1,3-Dichloropropene	0.445	0.410	7.9	124	0.00
43	T	1,1,2-Trichloroethane	0.337	0.314	6.8	126	0.00
44	T	Tetrachloroethene	0.505	0.511	-1.2	133	0.00
45	T	2-Hexanone	0.466	0.405	13.1	109	0.00
46	T	Chlorodibromomethane	0.513	0.495	3.5	131	0.00
47	T	1,2-Dibromoethane	0.477	0.465	2.5	131	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	145	0.00
49	T	Chlorobenzene	0.931	0.868	6.8	128	0.00
50	T	Ethylbenzene	1.550	1.409	9.1	121	0.00
51	T	m,p-Xylene	1.189	1.112	6.5	119	0.00
52	T	o-Xylene	1.129	1.037	8.1	123	0.00
53	T	Styrene	0.830	0.788	5.1	125	0.00
54	T	Bromoform	0.585	0.581	0.7	134	0.00
55	S	4-Bromofluorobenzene	0.586	0.593	-1.2	143	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011112\01111214.D Vial: 3
Acq On : 12 Jan 2012 10:47 am Operator: RACHEL HILL
Sample : ICV VOA1 011112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 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	0.816	0.784	3.9	127	0.00
57	T	4-Ethyltoluene	1.316	1.255	4.6	130	0.00
58	T	1,3,5-Trimethylbenzene	1.099	1.041	5.3	130	0.00
59	T	1,2,4-Trimethylbenzene	1.010	1.007	0.3	136	0.00
60	T	1,3-Dichlorobenzene	0.620	0.656	-5.8	141	0.00
61	T	1,4-Dichlorobenzene	0.579	0.613	-5.9	139	0.00
62	T	Benzyl chloride	0.786	0.823	-4.7	138	0.00
63	T	1,2-Dichlorobenzene	0.544	0.600	-10.3	143	0.00
64	T	1,2,4-Trichlorobenzene	0.106	0.107	-0.9	137	0.00
65	T	Hexachlorobutadiene	0.265	0.252	4.9	135	0.00
66		Naphthalene	0.169	0.177	-4.7	140	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011112\01111214.D Vial: 3
Acq On : 12 Jan 2012 10:47 am Operator: RACHEL HILL
Sample : ICV VOA1 011112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 12 13:45 2012 Quant Results File: 011112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 2012
Response via : Initial Calibration
DataAcq Meth : 011112V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	580016	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1919402	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1311099	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	778041	12.67	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.36%				
Target Compounds							Qvalue
2) Propylene	5.51	41	575547	10.23	ppbv		99
3) Dichlorodifluoromethane	5.59	85	1536034	9.68	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1165238	10.33	ppbv		83
5) Chloromethane	6.00	50	549257	9.23	ppbv		99
6) Vinyl chloride	6.21	62	705681	10.63	ppbv		100
7) 1,3-Butadiene	6.27	39	545878	10.55	ppbv		98
8) Bromomethane	6.85	94	617539	10.03	ppbv		99
9) Chloroethane	7.00	64	346572	9.70	ppbv		99
10) Trichlorofluoromethane	7.34	101	1393173	10.41	ppbv		98
11) Ethanol	7.57	45	114612	8.81	ppbv		99
12) Freon113	8.00	101	1140476	10.56	ppbv		93
13) 1,1-Dichloroethene	8.10	61	881346	10.45	ppbv		97
14) Acetone	8.19	43	644348	8.79	ppbv		97
15) Carbon disulfide	8.47	76	1688100	10.62	ppbv	#	100
16) 2-Propanol	8.23	45	650490	9.73	ppbv	#	77
17) Methylene chloride	8.76	49	606068	9.50	ppbv		94
18) tert-Butyl Methyl Ether	8.95	73	961831	8.99	ppbv		94
19) trans-1,2-Dichloroethene	9.04	61	747338	9.57	ppbv		96
20) n-Hexane	9.22	57	832884	9.77	ppbv		98
21) 1,1-Dichloroethane	9.60	63	886851	9.42	ppbv		99
22) Vinyl acetate	9.53	43	1016547	9.06	ppbv		99
23) cis-1,2-Dichloroethene	10.28	96	525650	9.91	ppbv		97
24) 2-Butanone	10.25	43	716278	9.13	ppbv		94
25) Ethyl acetate	10.20	43	918642	9.00	ppbv	#	100
26) Tetrahydrofuran	10.59	42	450808	9.15	ppbv		97
27) Chloroform	10.61	83	971369	9.72	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	921413	9.73	ppbv		98
29) Cyclohexane	10.86	56	819688	9.79	ppbv		96
30) Carbon tetrachloride	11.02	117	862864	9.80	ppbv		99
31) Benzene	11.30	78	1177243	9.25	ppbv		99
32) 1,2-Dichloroethane	11.38	62	475204	8.96	ppbv		99
34) Heptane	11.35	43	980751	8.81	ppbv		97
35) Trichloroethene	12.03	130	643257	9.37	ppbv		96
36) 1,2-Dichloropropane	12.39	63	454650	8.37	ppbv		97
37) 1,4-Dioxane	12.46	88	193007	9.42	ppbv		98
38) Bromodichloromethane	12.67	83	892096	8.89	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	685751	8.54	ppbv		98
40) 4-Methyl-2-pentanone	13.33	58	310705	8.78	ppbv		95
41) Toluene	13.63	91	1360925	9.03	ppbv		98
42) trans-1,3-Dichloropropene	13.93	75	573156	8.39	ppbv		99
43) 1,1,2-Trichloroethane	14.21	97	472266	9.13	ppbv		98
44) Tetrachloroethene	14.33	166	753626	9.72	ppbv		99
45) 2-Hexanone	14.41	43	610149	8.52	ppbv		99
46) Chlorodibromomethane	14.75	129	745339	9.47	ppbv		99
47) 1,2-Dibromoethane	14.99	107	684918	9.36	ppbv		99
49) Chlorobenzene	15.58	112	901397	9.23	ppbv		96
50) Ethylbenzene	15.62	91	1448728	8.91	ppbv		95
51) m,p-Xylene	15.78	91	2240005	17.96	ppbv		95
52) o-Xylene	16.37	91	1087631	9.19	ppbv		94

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011112\01111214.D Vial: 3
Acq On : 12 Jan 2012 10:47 am Operator: RACHEL HILL
Sample : ICV VOA1 011112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 12 13:45 2012 Quant Results File: 011112V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 2012
Response via : Initial Calibration
DataAcq Meth : 011112V1

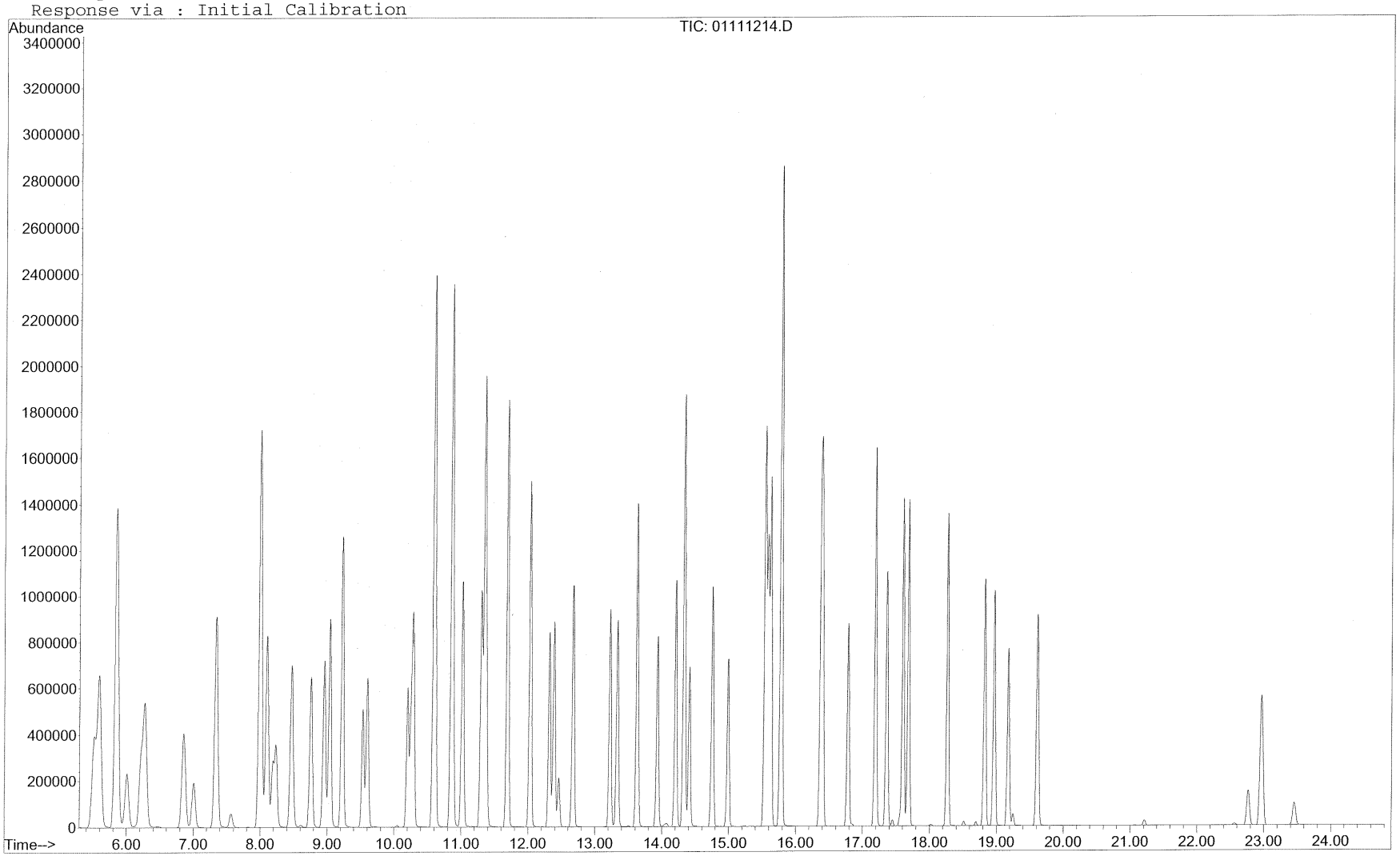
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) Styrene	16.40	104	810228	9.31	ppbv	99
54) Bromoform	16.78	173	584608	9.52	ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	822124	9.61	ppbv	99
57) 4-Ethyltoluene	17.60	105	1289536	9.34	ppbv	96
58) 1,3,5-Trimethylbenzene	17.68	105	1059261	9.19	ppbv	98
59) 1,2,4-Trimethylbenzene	18.26	105	1034947	9.77	ppbv	98
60) 1,3-Dichlorobenzene	18.82	146	667681	10.27	ppbv	99
61) 1,4-Dichlorobenzene	18.97	146	617072	10.17	ppbv	99
62) Benzyl chloride	19.17	91	837147	10.15	ppbv	98
63) 1,2-Dichlorobenzene	19.61	146	610003	10.69	ppbv	98
64) 1,2,4-Trichlorobenzene	22.77	180	101955	9.19	ppbv	96
65) Hexachlorobutadiene	22.97	225	248085	8.93	ppbv	99
66) Naphthalene	23.45	128	171214	9.65	ppbv	99

(#) = qualifier out of range (m) = manual integration
01111214.D 011112V1.M Tue Jan 24 15:05:12 2012 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011112\01111214.D Vial: 3
Acq On : 12 Jan 2012 10:47 am Operator: RACHEL HILL
Sample : ICV VOA1 011112 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 12 13:45 2012 Quant Results File: 011112V1.RES

Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_120117A **Run No.:** 45539

Analytical Run Date: 1/17/2012 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 45482 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 011712	BFB_TUNE	TUNE	R45539	1/17/2012 9:25:00 AM	Robert Lynch		
CCV VOA1 011712	EPA_TO15	ICV	R45539	1/17/2012 10:11:00 AM	Robert Lynch		
RLVS VOA1 011712	EPA_TO15	RLVS	R45539	1/17/2012 11:08:00 AM	Robert Lynch		
MBLK VOA1 011712	EPA_TO15	MBLK	R45539	1/17/2012 12:02:00 PM	Charles O`Bryan		
SUMMA RTI-048 CC	EPA_TO15	MBLK	R45539	1/17/2012 3:32:00 PM	Charles O`Bryan		
1112696-015A	EPA_TO15	SAMP	R45539	1/17/2012 4:26:00 PM	Robert Lynch	H	Originally ran in Omega sequence 45313. Was instructed to re-analyze to obtain a lower concentration of Toluene after hold time had expired.
1201023-003A	EPA_TO15	SAMP	R45539	1/17/2012 5:14:00 PM	Robert Lynch		
1201023-001A	EPA_TO15	SAMP	R45539	1/17/2012 6:52:00 PM	Robert Lynch		
1201023-001Adup	EPA_TO15	DUP	R45539	1/17/2012 7:38:00 PM	Charles O`Bryan		
1112881-001B	EPA_TO15	SAMP	R45539	1/17/2012 10:06:00 PM	Robert Lynch		
1112881-002B	EPA_TO15	SAMP	R45539	1/17/2012 10:58:00 PM	Robert Lynch		
1112881-003B	EPA_TO15	SAMP	R45539	1/17/2012 11:54:00 PM	Robert Lynch		
1112881-004B	EPA_TO15	SAMP	R45539	1/18/2012 12:46:00 AM	Robert Lynch		
1201327-001A	EPA_TO15	SAMP	R45539	1/18/2012 1:38:00 AM	Robert Lynch		
RLVS2 VOA1 01171	EPA_TO15	RLVS	R45539	1/18/2012 2:25:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45539

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
894974	BFB1 VOA1 011712	BFB_TUNE	TUNE	.\1\DATA\011712	1/17/2012 9:25:0	1	R45539		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.5	0.5		100	0	0	0	0	0	1%	0	2	0%	
174	M		82.5	82.5		100	0	0	0	0	0	83%	50	120	0%	
175	M		7.2	7.2		100	0	0	0	0	0	7%	4	9	0%	
176	M		100.6	100.6		100	0	0	0	0	0	101%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		18.9	18.9		100	0	0	0	0	0	19%	8	40	0%	
75	M		42.3	42.3		100	0	0	0	0	0	42%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		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
894975	CCV VOA1 011712	EPA_TO15	ICV	.\1\DATA\011712	1/17/2012 10:11:	1	R45539		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	10.74	10.74		9.6	0	0	0.107	1	0	112%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.14	11.14		10	0	0	0.211	1	0	111%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.07	11.07		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.87	10.87		9.8	0	0	0.2	1	0	111%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.19	10.19		9.7	0	0	0.111	1	0	105%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.01	11.01		9.9	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.41	8.41		9.1	0	0	0.271	1	0	92%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.9	9.9		9.8	0	0	0.245	1	0	101%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.59	10.59		9.6	0	0	0.186	1	0	110%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.67	9.67		9.7	0	0	0.208	1	0	100%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.76	10.76		9.7	0	0	0.196	1	0	111%	70	130	0%	
1,2-Dichloropropane	A	ppbv	11.56	11.56		9.8	0	0	0.224	1	0	118%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.08	10.08		9.7	0	0	0.24	1	0	104%	70	130	0%	
1,3-Butadiene	A	ppbv	11.57	11.57		9.8	0	0	0.152	1	0	118%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.82	9.82		9.7	0	0	0.202	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
894975	CCV VOA1 011712	EPA_TO15	ICV	.\1\DATA\011712	1/17/2012 10:11:	1	R45539		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.77	9.77		9.6	0	0	0.194	1	0	102%	70	130	0%	
1,4-Dioxane	A	ppbv	10.36	10.36		9.6	0	0	0.128	1	0	108%	70	130	0%	
2-Butanone	A	ppbv	11.06	11.06		9.9	0	0	0.287	1	0	112%	70	130	0%	
2-Hexanone	A	ppbv	11	11		9.8	0	0	0.135	1	0	112%	70	130	0%	
2-Propanol	A	ppbv	10.16	10.16		10.1	0	0	0.329	1	0	101%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.22	11.22		10	0	0	0.157	1	0	112%	70	130	0%	
Acetone	A	ppbv	10.28	10.28		10	0	0	0.43	1	0	103%	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	9.99	9.99		9.7	0	0	0.155	1	0	103%	70	130	0%	
Bromodichloromethane	A	ppbv	11.12	11.12		9.6	0	0	0.156	1	0	116%	70	130	0%	
Bromoform	A	ppbv	10.14	10.14		9.6	0	0	0.197	1	0	106%	70	130	0%	
Bromomethane	A	ppbv	9.37	9.37		9.3	0	0	0.075	1	0	101%	70	130	0%	
Carbon disulfide	A	ppbv	10.24	10.24		9.7	0	0	0.093	1	0	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.56	9.56		9.5	0	0	0.114	1	0	101%	70	130	0%	
Chlorobenzene	A	ppbv	10.94	10.94		9.9	0	0	0.275	1	0	111%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.7	10.7		9.2	0	0	0.165	1	0	116%	70	130	0%	
Chloroethane	A	ppbv	9.56	9.56		9.8	0	0	0.063	1	0	98%	70	130	0%	
Chloroform	A	ppbv	11.12	11.12		9.4	0	0	0.126	1	0	118%	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	9.88	9.88		9.8	0	0	0.107	1	0	101%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.72	10.72		9.5	0	0	0.166	1	0	113%	70	130	0%	
Cyclohexane	A	ppbv	11.3	11.3		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.51	9.51		9.2	0	0	0.086	1	0	103%	70	130	0%	
Ethanol	A	ppbv	8.94	8.94		9.2	0	0	1.962	5	0	97%	70	130	0%	
Ethyl acetate	A	ppbv	10.35	10.35		9.8	0	0	0.157	1	0	106%	70	130	0%	
Ethylbenzene	A	ppbv	11.38	11.38		9.8	0	0	0.737	2	0	116%	70	130	0%	
Heptane	A	ppbv	12.2	12.2		9.9	0	0	0.249	1	0	123%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.99	8.99		9.4	0	0	0.374	2	0	96%	70	130	0%	
m,p-Xylene	A	ppbv	24.55	24.55		19.2	0	0	0.524	2	0	128%	70	130	0%	
Methylene chloride	A	ppbv	10.3	10.3		10	0	0	2.077	5	0	103%	70	130	0%	
n-Hexane	A	ppbv	10.76	10.76		10.1	0	0	0.692	2	0	107%	70	130	0%	
Naphthalene	A	ppbv	9	9		9.2	0	0	0.247	1	0	98%	70	130	0%	
o-Xylene	A	ppbv	11.56	11.56		10	0	0	0.258	1	0	116%	70	130	0%	
Propylene	A	ppbv	10.38	10.38		10.2	0	0	0.075	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
894975	CCV VOA1 011712	EPA_TO15	ICV	.\1\DATA\011712	1/17/2012 10:11:	1	R45539		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	11.09	11.09		9.8	0	0	0.263	1	0	113%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.2	10.2		9.9	0	0	0.228	1	0	103%	70	130	0%	
Tetrachloroethene	A	ppbv	10.8	10.8		9.6	0	0	0.148	1	0	113%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.96	10.96		10	0	0	0.201	1	0	110%	70	130	0%	
Toluene	A	ppbv	11.15	11.15		9.8	0	0	0.158	1	0	114%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.55	10.55		9.8	0	0	0.117	1	0	108%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.25	10.25		9.1	0	0	0.171	1	0	113%	70	130	0%	
Trichloroethene	A	ppbv	10.49	10.49		9.6	0	0	0.119	1	0	109%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.04	10.04		9.6	0	0	0.148	1	0	105%	70	130	0%	
Vinyl acetate	A	ppbv	10.77	10.77		9.9	0	0	0.266	1	0	109%	70	130	0%	
Vinyl chloride	A	ppbv	10.27	10.27		9.4	0	0	0.072	1	0	109%	70	130	0%	
Xylenes, Total	C	ppbv	36.11	36.11		29.2	0	0	0.782	3	0	124%	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	12.71	12.71		12.5	0	0	0	0	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
894976	RLVS VOA1 011712	EPA_TO15	RLVS	.\1\DATA\011712	1/17/2012 11:08:	1	R45539		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	0.9	0.9		0.996	0	0	0.107	1	0	90%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.22	1.22		1	0	0	0.211	1	0	122%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.9	0.9		0.98	0	0	0.108	1	0	92%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.85	0.85		0.98	0	0	0.2	1	0	87%	70	130	0%	
1,1-Dichloroethane	A	ppbv	0.95	0.95		0.97	0	0	0.111	1	0	98%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.94	0.94		0.99	0	0	0.097	1	0	95%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.1	1.1		0.91	0	0	0.271	1	0	121%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	1.21	1.21		0.98	0	0	0.245	1	0	123%	70	130	0%	
1,2-Dibromoethane	A	ppbv	0.85	0.85		0.96	0	0	0.186	1	0	89%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.13	1.13		0.97	0	0	0.208	1	0	116%	70	130	0%	
1,2-Dichloroethane	A	ppbv	1.08	1.08		0.97	0	0	0.196	1	0	111%	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\011712\01171202.D Vial: 2
Acq On : 17 Jan 2012 10:11 am Operator: RACHEL HILL
Sample : CCV VOA1 011712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 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	96	0.00
2	T	Propylene	1.427	1.453	-1.8	91	0.00
3	T	Dichlorodifluoromethane	3.235	3.345	-3.4	92	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.572	2.572	0.0	86	0.00
5	T	Chloromethane	1.193	1.276	-7.0	95	0.00
6	T	Vinyl chloride	1.390	1.519	-9.3	84	0.01
7	T	1,3-Butadiene	1.177	1.391	-18.2	94	0.00
8	T	Bromomethane	1.329	1.339	-0.8	90	0.00
9	T	Chloroethane	0.826	0.858	-3.9	93	0.00
10	T	Trichlorofluoromethane	2.837	2.968	-4.6	91	0.00
11	T	Ethanol	0.371	0.361	2.7	87	0.00
12	T	Freon113	2.249	2.540	-12.9	93	0.00
13	T	1,1-Dichloroethene	1.900	2.112	-11.2	96	0.00
14	T	Acetone	1.920	1.974	-2.8	91	0.00
15	T	Carbon disulfide	3.479	3.673	-5.6	93	0.00
16	T	2-Propanol	1.822	1.832	-0.5	88	0.00
17	T	Methylene chloride	1.529	1.575	-3.0	92	0.00
18	T	tert-Butyl Methyl Ether	2.596	2.675	-3.0	90	0.00
19	T	trans-1,2-Dichloroethene	1.827	1.966	-7.6	93	0.00
20	T	n-Hexane	2.051	2.185	-6.5	91	0.00
21	T	1,1-Dichloroethane	2.188	2.299	-5.1	91	0.00
22	T	Vinyl acetate	2.941	3.199	-8.8	90	0.00
23	T	cis-1,2-Dichloroethene	1.205	1.216	-0.9	88	0.00
24	T	2-Butanone	1.934	2.161	-11.7	92	0.00
25	T	Ethyl acetate	2.644	2.794	-5.7	91	0.00
26	T	Tetrahydrofuran	1.182	1.295	-9.6	92	0.00
27	T	Chloroform	2.008	2.278	-13.4	95	0.00
28	T	1,1,1-Trichloroethane	1.925	2.153	-11.8	91	0.00
29	T	Cyclohexane	1.900	2.190	-15.3	93	0.00
30	T	Carbon tetrachloride	2.024	2.038	-0.7	84	0.00
31	T	Benzene	2.987	3.110	-4.1	90	0.00
32	T	1,2-Dichloroethane	1.149	1.275	-11.0	93	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	95	0.00
34	T	Heptane	0.734	0.905	-23.3	93	0.00
35	T	Trichloroethene	0.463	0.506	-9.3	84	0.00
36	T	1,2-Dichloropropane	0.363	0.428	-17.9	92	0.00
37	T	1,4-Dioxane	0.142	0.153	-7.7	85	0.00
38	T	Bromodichloromethane	0.609	0.705	-15.8	89	0.00
39	T	cis-1,3-Dichloropropene	0.538	0.608	-13.0	88	0.00
40	T	4-Methyl-2-pentanone	0.252	0.282	-11.9	89	0.00
41	T	Toluene	0.963	1.095	-13.7	88	0.00
42	T	trans-1,3-Dichloropropene	0.462	0.520	-12.6	87	0.00
43	T	1,1,2-Trichloroethane	0.343	0.381	-11.1	87	0.00
44	T	Tetrachloroethene	0.546	0.614	-12.5	82	0.00
45	T	2-Hexanone	0.526	0.590	-12.2	87	0.00
46	T	Chlorodibromomethane	0.534	0.583	-9.2	83	0.00
47	T	1,2-Dibromoethane	0.510	0.562	-10.2	84	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
49	T	Chlorobenzene	0.951	1.050	-10.4	84	0.00
50	T	Ethylbenzene	1.461	1.697	-16.2	88	0.00
51	T	m,p-Xylene	1.060	1.355	-27.8	91	0.00
52	T	o-Xylene	1.081	1.250	-15.6	88	0.00
53	T	Styrene	0.835	0.945	-13.2	85	0.00
54	T	Bromoform	0.655	0.692	-5.6	78	0.00
55	S	4-Bromofluorobenzene	0.604	0.614	-1.7	93	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011712\01171202.D Vial: 2
Acq On : 17 Jan 2012 10:11 am Operator: RACHEL HILL
Sample : CCV VOA1 011712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 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	0.807	0.899	-11.4	84	0.00
57	T	4-Ethyltoluene	1.387	1.454	-4.8	84	0.00
58	T	1,3,5-Trimethylbenzene	1.170	1.215	-3.8	83	0.00
59	T	1,2,4-Trimethylbenzene	1.106	1.118	-1.1	79	0.00
60	T	1,3-Dichlorobenzene	0.729	0.738	-1.2	76	0.00
61	T	1,4-Dichlorobenzene	0.682	0.694	-1.8	76	0.00
62	T	Benzyl chloride	0.927	0.955	-3.0	78	0.00
63	T	1,2-Dichlorobenzene	0.669	0.667	0.3	73	0.00
64	T	1,2,4-Trichlorobenzene	0.149	0.137	8.1	76	0.00
65	T	Hexachlorobutadiene	0.357	0.342	4.2	80	0.00
66		Naphthalene	0.221	0.216	2.3	80	0.01

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011712\01171202.D Vial: 2
Acq On : 17 Jan 2012 10:11 am Operator: RACHEL HILL
Sample : CCV VOA1 011712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 17 10:40 2012 Quant Results File: 011312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration
DataAcq Meth : 011312V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.60	130	601769	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1789113	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1212196	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.20	95	744321	12.71	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.68%				
Target Compounds							Qvalue
2) Propylene	5.52	41	713302	10.38	ppbv		99
3) Dichlorodifluoromethane	5.60	85	1481528	9.51	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	1176136	9.50	ppbv		83
5) Chloromethane	6.01	50	583369	10.16	ppbv		99
6) Vinyl chloride	6.22	62	687340	10.27	ppbv		99
7) 1,3-Butadiene	6.28	39	656082	11.57	ppbv		94
8) Bromomethane	6.86	94	599298	9.37	ppbv		100
9) Chloroethane	7.01	64	380117	9.56	ppbv		98
10) Trichlorofluoromethane	7.34	101	1371654	10.04	ppbv		99
11) Ethanol	7.57	45	159694	8.94	ppbv		99
12) Freon113	8.00	101	1198431	11.07	ppbv		95
13) 1,1-Dichloroethene	8.10	61	1006815	11.01	ppbv		90
14) Acetone	8.19	43	950179	10.28	ppbv		97
15) Carbon disulfide	8.47	76	1715233	10.24	ppbv	#	100
16) 2-Propanol	8.24	45	890662	10.16	ppbv		84
17) Methylene chloride	8.76	49	758241	10.30	ppbv	#	83
18) tert-Butyl Methyl Ether	8.96	73	1274762	10.20	ppbv	#	88
19) trans-1,2-Dichloroethene	9.04	61	927575	10.55	ppbv		86
20) n-Hexane	9.23	57	1062446	10.76	ppbv		95
21) 1,1-Dichloroethane	9.60	63	1073374	10.19	ppbv		97
22) Vinyl acetate	9.53	43	1524790	10.77	ppbv	#	96
23) cis-1,2-Dichloroethene	10.29	96	573478	9.88	ppbv	#	86
24) 2-Butanone	10.25	43	1030073	11.06	ppbv	#	90
25) Ethyl acetate	10.20	43	1317966	10.35	ppbv	#	100
26) Tetrahydrofuran	10.59	42	623641	10.96	ppbv		91
27) Chloroform	10.61	83	1074744	11.12	ppbv		100
28) 1,1,1-Trichloroethane	10.86	97	995117	10.74	ppbv		96
29) Cyclohexane	10.87	56	1033233	11.30	ppbv		90
30) Carbon tetrachloride	11.02	117	931920	9.56	ppbv		99
31) Benzene	11.30	78	1437241	9.99	ppbv		96
32) 1,2-Dichloroethane	11.38	62	595363	10.76	ppbv		98
34) Heptane	11.35	43	1282062	12.20	ppbv	#	92
35) Trichloroethene	12.03	130	694742	10.49	ppbv		94
36) 1,2-Dichloropropane	12.39	63	601036	11.56	ppbv	#	95
37) 1,4-Dioxane	12.46	88	210251	10.36	ppbv	#	83
38) Bromodichloromethane	12.68	83	968996	11.12	ppbv		99
39) cis-1,3-Dichloropropene	13.23	75	826146	10.72	ppbv		98
40) 4-Methyl-2-pentanone	13.34	58	404080	11.22	ppbv	#	91
41) Toluene	13.63	91	1535631	11.15	ppbv		99
42) trans-1,3-Dichloropropene	13.94	75	677027	10.25	ppbv		98
43) 1,1,2-Trichloroethane	14.21	97	534108	10.87	ppbv		96
44) Tetrachloroethene	14.34	166	844185	10.80	ppbv		99
45) 2-Hexanone	14.41	43	827828	11.00	ppbv		97
46) Chlorodibromomethane	14.76	129	817996	10.70	ppbv		99
47) 1,2-Dibromoethane	14.99	107	772743	10.59	ppbv		100
49) Chlorobenzene	15.59	112	1008406	10.94	ppbv	#	93
50) Ethylbenzene	15.63	91	1612704	11.38	ppbv		94
51) m,p-Xylene	15.78	91	2523807	24.55	ppbv		96
52) o-Xylene	16.38	91	1211841	11.56	ppbv	#	92

(#) = qualifier out of range (m) = manual integration
01171202.D 011312V1.M Wed Jan 18 12:35:10 2012 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011712\01171202.D Vial: 2
Acq On : 17 Jan 2012 10:11 am Operator: RACHEL HILL
Sample : CCV VOA1 011712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 17 10:40 2012 Quant Results File: 011312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration
DataAcq Meth : 011312V1

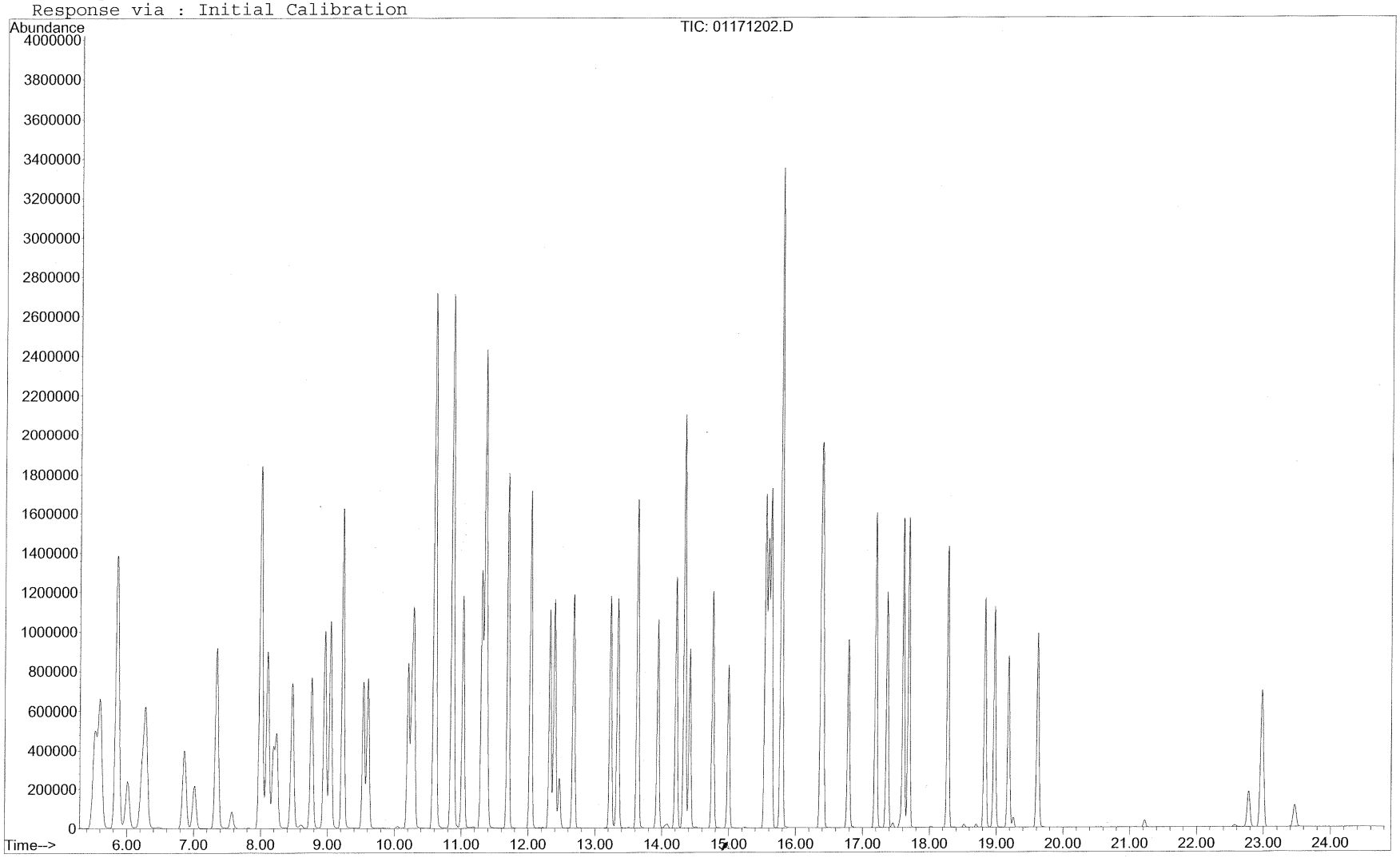
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53)	Styrene	16.40	104	897687	11.09	ppbv	99
54)	Bromoform	16.78	173	644533	10.14	ppbv	99
56)	1,1,2,2-Tetrachloroethane	17.36	83	871857	11.14	ppbv	99
57)	4-Ethyltoluene	17.60	105	1381526	10.27	ppbv	97
58)	1,3,5-Trimethylbenzene	17.69	105	1142952	10.08	ppbv	97
59)	1,2,4-Trimethylbenzene	18.27	105	1062493	9.90	ppbv	98
60)	1,3-Dichlorobenzene	18.83	146	693964	9.82	ppbv	99
61)	1,4-Dichlorobenzene	18.97	146	646312	9.77	ppbv	99
62)	Benzyl chloride	19.18	91	898185	9.99	ppbv	98
63)	1,2-Dichlorobenzene	19.62	146	627790	9.67	ppbv	99
64)	1,2,4-Trichlorobenzene	22.78	180	121289	8.41	ppbv	98
65)	Hexachlorobutadiene	22.98	225	311505	8.99	ppbv	99
66)	Naphthalene	23.47	128	192783	9.00	ppbv	99

(#) = qualifier out of range (m) = manual integration
01171202.D 011312V1.M Wed Jan 18 12:35:10 2012 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011712\01171202.D Vial: 2
Acq On : 17 Jan 2012 10:11 am Operator: RACHEL HILL
Sample : CCV VOA1 011712 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 17 10:40 2012 Quant Results File: 011312V1.RES

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 2012
Response via : Initial Calibration

Calibration Files
2 =01111205.D 4 =01111206.D 5 =01111207.D
6 =01111208.D 7 =01111209.D 8 =01111210.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.197	1.451	1.308	1.254	1.037	1.098	1.212	11.53
3)	T	Dichlorodifluoromet	3.016	4.011	3.747	3.599	3.037	3.172	3.419	11.10
4)	T	1,2-Dichloro-1,2,2,	2.055	2.773	2.673	2.584	2.250	2.340	2.432	10.46
5)	T	Chloromethane	1.235	1.591	1.401	1.350	1.105	1.152	1.283	13.63
6)	T	Vinyl chloride	1.490	1.971	1.752	1.584	1.185	1.044	1.430	26.02
7)	T	1,3-Butadiene	1.066	1.444	1.285	1.253	1.016	0.957	1.115	20.18
8)	T	Bromomethane	1.180	1.548	1.475	1.392	1.224	1.189	1.327	11.00
9)	T	Chloroethane	0.697	0.912	0.857	0.817	0.687	0.693	0.770	11.86
10)	T	Trichlorofluorometh	2.681	3.132	3.202	3.028	2.653	2.707	2.885	7.97
11)	T	Ethanol	0.280	0.321	0.315	0.277	0.234	0.261	0.280	10.68
12)	T	Freon113	2.251	2.601	2.537	2.484	2.149	2.235	2.327	9.23
13)	T	1,1-Dichloroethene	1.806	2.157	1.945	1.891	1.580	1.684	1.817	10.91
14)	T	Acetone	1.920	1.775	1.727	1.513	1.207	1.453	1.580	15.24
15)	T	Carbon disulfide	3.328	3.987	3.855	3.467	3.101	3.122	3.427	10.64
16)	T	2-Propanol	1.513	1.699	1.620	1.400	1.177	1.310	1.441	12.59
17)	T	Methylene chloride	1.629	1.544	1.435	1.415	1.139	1.240	1.375	13.11
18)	T	tert-Butyl Methyl E	2.608	2.442	2.537	2.156	1.831	2.235	2.305	11.43
19)	T	trans-1,2-Dichloroe	1.700	1.872	1.789	1.761	1.461	1.608	1.683	8.27
20)	T	n-Hexane	1.852	2.087	1.987	1.920	1.576	1.750	1.838	9.64
21)	T	1,1-Dichloroethane	2.064	2.246	2.185	2.058	1.735	1.932	2.028	8.35
22)	T	Vinyl acetate	2.057	2.821	2.735	2.512	1.976	2.396	2.419	13.06
23)	T	cis-1,2-Dichloroeth	1.095	1.224	1.211	1.132	1.024	1.138	1.143	6.09
24)	T	2-Butanone	1.813	1.935	1.861	1.730	1.374	1.579	1.690	11.86
25)	T	Ethyl acetate	2.302	2.474	2.454	2.216	1.763	2.133	2.199	11.26
26)	T	Tetrahydrofuran	1.019	1.299	1.213	1.069	0.850	1.008	1.062	14.16
27)	T	Chloroform	2.109	2.460	2.377	2.215	1.891	2.067	2.154	9.76
28)	T	1,1,1-Trichloroetha	1.802	2.301	2.258	2.147	1.867	2.028	2.040	9.81
29)	T	Cyclohexane	1.785	2.181	1.984	1.958	1.576	1.672	1.805	13.83
30)	T	Carbon tetrachlorid	1.586	2.084	2.029	1.911	1.767	1.944	1.898	8.94
31)	T	Benzene	2.742	3.077	2.858	2.754	2.342	2.682	2.744	8.01
32)	T	1,2-Dichloroethane	1.135	1.279	1.215	1.156	0.964	1.130	1.143	8.50
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.670	0.844	0.888	0.733	0.597	0.711	0.725	14.80
35)	T	Trichloroethene	0.349	0.471	0.508	0.440	0.415	0.483	0.447	11.71
36)	T	1,2-Dichloropropane	0.324	0.380	0.409	0.343	0.287	0.362	0.354	11.32
37)	T	1,4-Dioxane	0.106	0.150	0.158	0.126	0.118	0.134	0.133	13.46
38)	T	Bromodichloromethan	0.512	0.702	0.757	0.648	0.570	0.698	0.654	12.99
39)	T	cis-1,3-Dichloropro	0.409	0.566	0.608	0.506	0.446	0.546	0.523	13.95
40)	T	4-Methyl-2-pentanon	0.188	0.261	0.275	0.221	0.189	0.234	0.230	14.66
41)	T	Toluene	0.857	1.074	1.136	0.941	0.833	1.005	0.982	11.35
42)	T	trans-1,3-Dichlorop	0.333	0.483	0.519	0.425	0.381	0.464	0.445	15.50
43)	T	1,1,2-Trichloroetha	0.270	0.363	0.388	0.320	0.284	0.354	0.337	13.67
44)	T	Tetrachloroethene	0.387	0.562	0.597	0.510	0.457	0.532	0.505	13.75
45)	T	2-Hexanone	0.378	0.545	0.572	0.447	0.373	0.468	0.466	16.26
46)	T	Chlorodibromomethan	0.365	0.553	0.593	0.494	0.437	0.573	0.513	16.57
47)	T	1,2-Dibromoethane	0.380	0.520	0.556	0.461	0.381	0.508	0.477	15.03
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.827	0.982	1.039	0.891	0.848	0.942	0.931	8.46
50)	T	Ethylbenzene	1.453	1.690	1.767	1.501	1.414	1.520	1.550	8.34
51)	T	m,p-Xylene	1.109	1.353	1.433	1.211	1.135	1.108	1.189	13.26
52)	T	o-Xylene	1.022	1.221	1.279	1.088	1.044	1.129	1.129	8.20
53)	T	Styrene	0.679	0.914	0.925	0.801	0.779	0.853	0.830	10.26
54)	T	Bromoform	0.471	0.629	0.648	0.566	0.555	0.603	0.585	10.37
55)	S	4-Bromofluorobenzen	0.657	0.600	0.579	0.569	0.578	0.553	0.586	5.95
56)	T	1,1,2,2-Tetrachloro	0.943	0.895	0.899	0.766	0.725	0.723	0.816	11.40
57)	T	4-Ethyltoluene	1.577	1.394	1.407	1.196	1.149	1.196	1.316	11.59

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

Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 2012
Response via : Initial Calibration

Calibration Files
2 =01111205.D 4 =01111206.D 5 =01111207.D
6 =01111208.D 7 =01111209.D 8 =01111210.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.344	1.160	1.170	0.988	0.962	0.995	1.099	12.38
59)	T	1,2,4-Trimethylbenz	1.218	1.073	1.059	0.913	0.884	0.890	1.010	12.11
60)	T	1,3-Dichlorobenzene	0.707	0.675	0.655	0.569	0.558	0.541	0.620	10.34
61)	T	1,4-Dichlorobenzene	0.637	0.637	0.616	0.534	0.521	0.512	0.579	9.52
62)	T	Benzyl chloride		0.863	0.883	0.747	0.731	0.706	0.786	10.35
63)	T	1,2-Dichlorobenzene	0.681	0.605	0.576	0.496	0.485	0.453	0.544	14.79
64)	T	1,2,4-Trichlorobenz	0.127	0.113	0.110	0.087	0.097	0.102	0.106	13.22
65)	T	Hexachlorobutadiene	0.379	0.270	0.258	0.208	0.217	0.233	0.265	21.91
66)		Naphthalene	0.194	0.183	0.176	0.139	0.159	0.164	0.169	11.47

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\011112V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Jan 12 13:43:32 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	5.52	0.521	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	0.567	A	3	A	B
6		T	Vinyl chloride	62	6.21	0.586	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	7.01	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.34	0.692	A	3	A	B
11		T	Ethanol	45	7.57	0.714	A	2	A	B
12		T	Freon113	101	7.99	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.47	0.799	A	3	A	B
16		T	2-Propanol	45	8.24	0.777	A	2	A	B
17		T	Methylene chloride	49	8.75	0.826	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	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	10.29	0.971	A	3	A	B
24		T	2-Butanone	43	10.25	0.967	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.962	A	3	A	B
26		T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27		T	Chloroform	83	10.60	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	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	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.971	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.46	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	13.22	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.94	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	14.33	1.226	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.78	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	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	18.97	1.220	A	3	A	B
62		T	Benzyl chloride	91	19.18	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	22.77	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66			Naphthalene	128	23.45	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
--------------------------------------------------------------------------------
          011112V1.M     Tue Jan 24 15:10:00 2012
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Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration

Calibration Files
2 =12301106.D 4 =12301112.D 5 =12301113.D
6 =12301109.D 7 =12301110.D 8 =12301111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.176	1.287	1.280	1.171	1.175	1.185	1.217	4.26
3)	T	Dichlorodifluoromet	2.925	3.453	3.425	3.106	3.125	3.170	3.196	5.80
4)	T	1,2-Dichloro-1,2,2,	2.056	2.692	2.645	2.313	2.367	2.405	2.389	9.26
5)	T	Chloromethane	1.164	1.182	1.174	1.121	1.076	1.021	1.120	5.23
6)	T	Vinyl chloride	1.322	1.596	1.571	1.438	1.246	0.909	1.269	24.50
7)	T	1,3-Butadiene	1.076	1.252	1.225	1.120	1.081	0.994	1.073	15.14
8)	T	Bromomethane	1.119	1.508	1.462	1.285	1.265	1.405	1.347	9.89
9)	T	Chloroethane	0.699	0.861	0.835	0.759	0.706	0.785	0.777	7.82
10)	T	Trichlorofluorometh	2.370	3.186	2.998	2.767	2.475	2.785	2.746	10.35
11)	T	Ethanol	0.302	0.407	0.389	0.312	0.293	0.338	0.340	13.90
12)	T	Freon113	2.102	2.741	2.446	2.380	2.011	2.083	2.232	13.63
13)	T	1,1-Dichloroethene	1.703	2.060	1.869	1.814	1.550	1.711	1.766	9.43
14)	T	Acetone	2.110	1.970	1.828	1.581	1.381	1.594	1.714	15.27
15)	T	Carbon disulfide	3.187	3.966	3.795	3.485	3.122	3.432	3.465	9.09
16)	T	2-Propanol	1.596	2.100	2.063	1.656	1.586	1.752	1.782	11.98
17)	T	Methylene chloride	1.634	1.500	1.353	1.343	1.142	1.249	1.349	12.61
18)	T	tert-Butyl Methyl E	2.799	2.834	2.577	2.241	1.895	2.338	2.413	14.14
19)	T	trans-1,2-Dichloroe	1.706	1.911	1.732	1.685	1.452	1.594	1.661	8.93
20)	T	n-Hexane	1.888	2.108	1.940	1.835	1.617	1.714	1.821	9.63
21)	T	1,1-Dichloroethane	2.084	2.289	2.125	1.983	1.766	1.974	2.020	8.23
22)	T	Vinyl acetate	2.307	2.955	2.756	2.437	2.049	2.413	2.486	13.02
23)	T	cis-1,2-Dichloroeth	1.142	1.377	1.269	1.146	1.026	1.197	1.184	9.50
24)	T	2-Butanone	2.094	2.073	2.047	1.751	1.432	1.648	1.841	14.84
25)	T	Ethyl acetate	2.700	2.614	2.559	2.214	1.857	2.110	2.300	14.10
26)	T	Tetrahydrofuran	1.151	1.303	1.295	1.089	1.038	1.031	1.134	10.65
27)	T	Chloroform	2.128	2.335	2.204	2.029	1.832	1.866	2.019	10.74
28)	T	1,1,1-Trichloroetha	1.906	2.294	2.172	1.994	1.763	1.840	1.946	11.59
29)	T	Cyclohexane	1.942	2.047	1.885	1.789	1.575	1.519	1.727	14.92
30)	T	Carbon tetrachlorid	1.751	2.270	2.127	1.902	1.705	1.937	1.923	10.92
31)	T	Benzene	3.423	3.345	3.115	2.736	2.339	2.714	2.884	14.42
32)	T	1,2-Dichloroethane	1.293	1.245	1.183	1.053	0.913	1.031	1.098	13.05
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.730	0.773	0.753	0.649	0.573	0.521	0.632	20.67
35)	T	Trichloroethene	0.397	0.541	0.523	0.434	0.378	0.400	0.428	18.66
36)	T	1,2-Dichloropropane	0.381	0.390	0.379	0.322	0.273	0.296	0.329	16.80
37)	T	1,4-Dioxane	0.138	0.202	0.202	0.154	0.137	0.160	0.161	18.15
38)	T	Bromodichloromethan	0.597	0.719	0.707	0.605	0.521	0.548	0.595	15.78
39)	T	cis-1,3-Dichloropro	0.520	0.607	0.596	0.493	0.428	0.471	0.504	15.24
40)	T	4-Methyl-2-pentanon	0.231	0.317	0.315	0.253	0.229	0.240	0.257	16.36
41)	T	Toluene	1.076	1.144	1.107	0.981	0.788	0.847	0.950	18.03
42)	T	trans-1,3-Dichlorop	0.420	0.517	0.512	0.442	0.372	0.410	0.434	14.15
43)	T	1,1,2-Trichloroetha	0.335	0.404	0.396	0.344	0.288	0.313	0.335	15.37
44)	T	Tetrachloroethene	0.467	0.626	0.607	0.525	0.443	0.432	0.490	21.41
45)	T	2-Hexanone	0.469	0.669	0.666	0.542	0.491	0.500	0.540	17.09
46)	T	Chlorodibromomethan	0.464	0.634	0.613	0.538	0.445	0.485	0.510	17.42
47)	T	1,2-Dibromoethane	0.487	0.598	0.581	0.497	0.416	0.452	0.487	16.73
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.989	1.111	1.062	0.885	0.785	0.836	0.910	16.47
50)	T	Ethylbenzene	1.751	1.767	1.711	1.411	1.278	1.256	1.460	19.56
51)	T	m,p-Xylene	1.327	1.334	1.303	1.051	0.960	0.816	1.132	19.53
52)	T	o-Xylene	1.244	1.284	1.252	1.024	0.948	0.912	1.061	19.12
53)	T	Styrene	0.828	1.016	0.966	0.804	0.737	0.723	0.810	17.96
54)	T	Bromoform	0.575	0.739	0.688	0.580	0.528	0.549	0.586	16.96
55)	S	4-Bromofluorobenzen	0.640	0.581	0.559	0.544	0.572	0.559	0.573	5.53
56)	T	1,1,2,2-Tetrachloro	1.111	0.972	0.906	0.724	0.708	0.678	0.810	23.48
57)	T	4-Ethyltoluene	1.854	1.546	1.392	1.131	1.101	1.125	1.298	24.45

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 2012
Response via : Initial Calibration

Calibration Files
2 =12301106.D 4 =12301112.D 5 =12301113.D
6 =12301109.D 7 =12301110.D 8 =12301111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.575	1.275	1.169	0.924	0.915	0.927	1.081	25.52
59)	T	1,2,4-Trimethylbenz	1.478	1.222	1.106	0.880	0.863	0.873	1.024	25.23
60)	T	1,3-Dichlorobenzene	0.872	0.819	0.704	0.562	0.551	0.581	0.653	22.78
61)	T	1,4-Dichlorobenzene	0.784	0.764	0.657	0.528	0.516	0.549	0.607	21.30
62)	T	Benzyl chloride		1.135	1.041	0.813	0.820	0.827	0.927	16.23
63)	T	1,2-Dichlorobenzene	0.835	0.752	0.645	0.506	0.507	0.526	0.601	24.49
64)	T	1,2,4-Trichlorobenz	0.177	0.157	0.139	0.105	0.118	0.149	0.141	18.73
65)	T	Hexachlorobutadiene	0.502	0.337	0.305	0.231	0.246	0.290	0.308	30.24
66)		Naphthalene	0.272	0.296	0.265	0.202	0.228	0.282	0.257	13.73

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\123011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:41:02 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	5.52	0.521	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	6.01	0.567	A	3	A	B
6		T	Vinyl chloride	62	6.22	0.587	A	2	A	B
7		T	1,3-Butadiene	39	6.27	0.592	A	2	A	B
8		T	Bromomethane	94	6.86	0.648	A	3	A	B
9		T	Chloroethane	64	7.01	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11		T	Ethanol	45	7.57	0.714	A	2	A	B
12		T	Freon113	101	8.00	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.47	0.800	A	3	A	B
16		T	2-Propanol	45	8.24	0.778	A	2	A	B
17		T	Methylene chloride	49	8.76	0.827	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	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	9.23	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	10.29	0.971	A	3	A	B
24		T	2-Butanone	43	10.25	0.967	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26		T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27		T	Chloroform	83	10.61	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.040	A	3	A	B
31		T	Benzene	78	11.30	1.067	A	3	A	B
32		T	1,2-Dichloroethane	62	11.38	1.074	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.971	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38		T	Bromodichloromethane	83	12.68	1.084	A	2	A	B
39		T	cis-1,3-Dichloropropene	75	13.23	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.94	1.192	A	3	A	B
43		T	1,1,2-Trichloroethane	97	14.21	1.215	A	3	A	B
44		T	Tetrachloroethene	166	14.33	1.226	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.76	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.59	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.79	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.61	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	1.176	A	2	A	B
60		T	1,3-Dichlorobenzene	146	18.83	1.211	A	3	A	B
61		T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62		T	Benzyl chloride	91	19.18	1.234	A	2	A	B
63		T	1,2-Dichlorobenzene	146	19.62	1.262	A	3	A	B
64		T	1,2,4-Trichlorobenzene	180	22.77	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66			Naphthalene	128	23.46	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
--------------------------------------------------------------------------------
          123011V1.M     Tue Jan 03 16:11:20 2012
```

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration

Calibration Files
2 =01021208.D 4 =01021209.D 5 =01021210.D
6 =01021211.D 7 =01021212.D 8 =01021213.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.229	1.428	1.300	1.267	1.186	1.130	1.259	7.49
3)	T	Dichlorodifluoromet	3.199	3.824	3.566	3.331	3.172	3.023	3.346	8.05
4)	T	1,2-Dichloro-1,2,2,	2.428	2.816	2.774	2.447	2.333	2.297	2.493	8.55
5)	T	Chloromethane	1.162	1.373	1.165	1.201	1.109	1.013	1.165	9.42
6)	T	Vinyl chloride	1.468	1.813	1.604	1.625	1.459	0.958	1.391	26.44
7)	T	1,3-Butadiene	1.131	1.340	1.216	1.201	1.119	0.986	1.113	15.74
8)	T	Bromomethane	1.260	1.448	1.501	1.360	1.286	1.317	1.372	6.56
9)	T	Chloroethane	0.729	0.873	0.840	0.820	0.765	0.735	0.795	6.82
10)	T	Trichlorofluorometh	2.478	3.074	3.093	2.947	2.753	2.642	2.815	8.18
11)	T	Ethanol	0.304	0.433	0.398	0.381	0.335	0.317	0.361	14.04
12)	T	Freon113	2.173	2.644	2.508	2.573	2.293	2.011	2.309	11.84
13)	T	1,1-Dichloroethene	1.749	2.066	1.882	1.964	1.789	1.598	1.823	8.76
14)	T	Acetone	2.102	2.155	1.918	1.886	1.544	1.482	1.828	14.26
15)	T	Carbon disulfide	3.279	3.962	3.820	3.693	3.430	3.137	3.521	8.71
16)	T	2-Propanol	1.599	2.328	2.103	1.971	1.746	1.627	1.894	13.94
17)	T	Methylene chloride	1.650	1.575	1.392	1.486	1.285	1.191	1.411	11.84
18)	T	tert-Butyl Methyl E	2.847	3.004	2.759	2.664	2.192	2.142	2.584	12.66
19)	T	trans-1,2-Dichloroe	1.752	1.973	1.788	1.894	1.632	1.532	1.744	8.93
20)	T	n-Hexane	1.963	2.205	1.974	2.071	1.790	1.671	1.917	9.95
21)	T	1,1-Dichloroethane	2.140	2.413	2.210	2.261	1.973	1.874	2.131	8.59
22)	T	Vinyl acetate	2.305	3.375	2.902	2.865	2.403	2.274	2.687	16.21
23)	T	cis-1,2-Dichloroeth	1.139	1.368	1.332	1.290	1.143	1.111	1.227	8.39
24)	T	2-Butanone	2.085	2.308	1.982	1.954	1.678	1.650	1.943	12.84
25)	T	Ethyl acetate	2.794	2.999	2.606	2.539	2.138	2.031	2.491	13.98
26)	T	Tetrahydrofuran	1.164	1.571	1.332	1.305	1.091	1.045	1.235	14.75
27)	T	Chloroform	2.202	2.562	2.295	2.298	2.001	1.827	2.153	12.19
28)	T	1,1,1-Trichloroetha	1.983	2.441	2.260	2.234	1.938	1.758	2.058	12.54
29)	T	Cyclohexane	2.002	2.239	1.918	2.045	1.714	1.524	1.841	15.81
30)	T	Carbon tetrachlorid	1.821	2.286	2.252	2.123	1.899	1.787	2.013	10.19
31)	T	Benzene	3.428	3.550	3.245	3.132	2.675	2.511	3.044	13.07
32)	T	1,2-Dichloroethane	1.325	1.403	1.247	1.203	1.046	0.967	1.182	13.34
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.751	0.936	0.783	0.796	0.676	0.524	0.714	20.79
35)	T	Trichloroethene	0.410	0.580	0.565	0.510	0.464	0.369	0.471	17.75
36)	T	1,2-Dichloropropane	0.386	0.468	0.403	0.397	0.339	0.276	0.371	16.82
37)	T	1,4-Dioxane	0.133	0.228	0.211	0.193	0.165	0.135	0.177	20.65
38)	T	Bromodichloromethan	0.605	0.838	0.755	0.718	0.636	0.511	0.664	16.84
39)	T	cis-1,3-Dichloropro	0.526	0.712	0.628	0.589	0.519	0.425	0.559	16.54
40)	T	4-Methyl-2-pentanon	0.230	0.376	0.325	0.313	0.273	0.222	0.287	19.12
41)	T	Toluene	1.088	1.320	1.166	1.092	0.952	0.763	1.038	17.95
42)	T	trans-1,3-Dichlorop	0.422	0.609	0.531	0.498	0.442	0.365	0.475	16.75
43)	T	1,1,2-Trichloroetha	0.349	0.459	0.393	0.384	0.338	0.282	0.363	15.49
44)	T	Tetrachloroethene	0.479	0.668	0.566	0.568	0.516	0.399	0.515	18.68
45)	T	2-Hexanone	0.470	0.812	0.667	0.662	0.572	0.463	0.600	20.63
46)	T	Chlorodibromomethan	0.467	0.696	0.574	0.589	0.529	0.432	0.540	16.51
47)	T	1,2-Dibromoethane	0.495	0.649	0.544	0.543	0.484	0.399	0.512	15.29
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	1.013	1.221	1.170	1.039	0.915	0.789	1.000	15.92
50)	T	Ethylbenzene	1.778	2.050	1.948	1.713	1.484	1.231	1.640	19.47
51)	T	m,p-Xylene	1.374	1.607	1.529	1.313	1.103	0.846	1.295	21.75
52)	T	o-Xylene	1.280	1.492	1.442	1.264	1.092	0.910	1.202	19.30
53)	T	Styrene	0.840	1.142	1.090	0.956	0.839	0.709	0.900	18.79
54)	T	Bromoform	0.605	0.793	0.766	0.677	0.603	0.512	0.642	16.73
55)	S	4-Bromofluorobenzen	0.661	0.597	0.588	0.581	0.567	0.547	0.589	6.02
56)	T	1,1,2,2-Tetrachloro	1.192	1.140	1.072	0.898	0.785	0.648	0.919	23.86
57)	T	4-Ethyltoluene	1.984	1.746	1.641	1.415	1.231	1.042	1.458	23.65

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration

Calibration Files
2 =01021208.D 4 =01021209.D 5 =01021210.D
6 =01021211.D 7 =01021212.D 8 =01021213.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.693	1.441	1.371	1.166	1.019	0.861	1.214	24.77
59)	T	1,2,4-Trimethylbenz	1.585	1.383	1.281	1.068	0.948	0.806	1.140	24.92
60)	T	1,3-Dichlorobenzene	0.939	0.871	0.800	0.663	0.599	0.502	0.707	23.26
61)	T	1,4-Dichlorobenzene	0.845	0.818	0.759	0.624	0.564	0.470	0.662	22.03
62)	T	Benzyl chloride		1.285	1.214	1.023	0.877	0.720	1.024	22.83
63)	T	1,2-Dichlorobenzene	0.894	0.794	0.742	0.606	0.529	0.437	0.647	25.70
64)	T	1,2,4-Trichlorobenz	0.187	0.165	0.155	0.119	0.111	0.100	0.140	24.72
65)	T	Hexachlorobutadiene	0.509	0.364	0.340	0.273	0.242	0.214	0.320	30.66
66)		Naphthalene	0.284	0.310	0.292	0.224	0.206	0.189	0.251	20.19

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.52	0.521	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	6.01	0.567	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	0.593	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	7.34	0.693	A	3	A	B
11	T	Ethanol	45	7.56	0.714	A	2	A	B
12	T	Freon113	101	8.00	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.47	0.799	A	3	A	B
16	T	2-Propanol	45	8.23	0.777	A	2	A	B
17	T	Methylene chloride	49	8.76	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	10.25	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27	T	Chloroform	83	10.60	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.041	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	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.970	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37	T	1,4-Dioxane	88	12.46	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	13.23	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45	T	2-Hexanone	43	14.41	1.233	A	2	A	B
46	T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47	T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I	Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49	T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50	T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51	T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52	T	o-Xylene	91	16.37	1.054	A	2	A	B
53	T	Styrene	104	16.40	1.055	A	3	A	B
54	T	Bromoform	173	16.78	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56	T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57	T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58	T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.83	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62	T	Benzyl chloride	91	19.18	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	22.78	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	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
--------------------------------------------------------------------------
          010212V1.M     Mon Jan 09 17:49:19 2012
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Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 2012
Response via : Initial Calibration

Calibration Files
2 =01101204.D 4 =01101205.D 5 =01101206.D
6 =01101207.D 7 =01101208.D 8 =01101209.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.143	1.275	1.212	1.108	1.060	1.032	1.115	9.40
3)	T	Dichlorodifluoromet	2.919	3.730	3.443	3.208	3.093	3.061	3.188	9.60
4)	T	1,2-Dichloro-1,2,2,	1.998	2.766	2.527	2.417	2.362	2.368	2.363	10.84
5)	T	Chloromethane	1.165	1.355	1.309	1.192	1.132	1.071	1.171	11.27
6)	T	Vinyl chloride	1.335	1.762	1.660	1.529	1.350	1.064	1.357	24.90
7)	T	1,3-Butadiene	1.046	1.263	1.194	1.102	1.055	0.942	1.038	18.78
8)	T	Bromomethane	1.115	1.448	1.381	1.284	1.293	1.243	1.287	8.26
9)	T	Chloroethane	0.673	0.857	0.811	0.754	0.743	0.714	0.747	9.00
10)	T	Trichlorofluorometh	2.304	3.077	2.976	2.844	2.813	2.754	2.751	9.80
11)	T	Ethanol	0.300	0.323	0.318	0.304	0.294	0.275	0.293	9.77
12)	T	Freon113	2.030	2.646	2.510	2.484	2.458	2.248	2.310	13.16
13)	T	1,1-Dichloroethene	1.671	2.016	1.882	1.804	1.762	1.678	1.756	9.73
14)	T	Acetone	1.936	1.838	1.781	1.713	1.671	1.501	1.671	13.69
15)	T	Carbon disulfide	3.081	3.820	3.621	3.365	3.280	3.150	3.310	9.89
16)	T	2-Propanol	1.480	1.688	1.630	1.520	1.452	1.346	1.472	11.44
17)	T	Methylene chloride	1.565	1.500	1.428	1.351	1.314	1.230	1.351	12.42
18)	T	tert-Butyl Methyl E	2.534	2.697	2.667	2.622	2.617	2.440	2.519	8.83
19)	T	trans-1,2-Dichloroe	1.628	1.879	1.805	1.729	1.718	1.618	1.684	8.96
20)	T	n-Hexane	1.842	2.097	2.023	1.903	1.887	1.757	1.856	10.78
21)	T	1,1-Dichloroethane	2.047	2.288	2.229	2.100	2.098	1.979	2.072	8.34
22)	T	Vinyl acetate	2.128	2.954	2.914	2.795	2.749	2.506	2.586	14.22
23)	T	cis-1,2-Dichloroeth	1.080	1.282	1.243	1.210	1.226	1.188	1.186	6.76
24)	T	2-Butanone	1.951	1.973	2.041	1.962	1.837	1.722	1.838	12.33
25)	T	Ethyl acetate	2.403	2.616	2.601	2.463	2.384	2.159	2.346	12.20
26)	T	Tetrahydrofuran	1.104	1.302	1.284	1.199	1.135	1.022	1.124	14.71
27)	T	Chloroform	2.151	2.481	2.401	2.307	2.251	2.059	2.194	11.77
28)	T	1,1,1-Trichloroetha	1.842	2.347	2.315	2.230	2.201	2.018	2.085	12.62
29)	T	Cyclohexane	1.880	2.159	2.059	1.951	1.864	1.635	1.831	16.26
30)	T	Carbon tetrachlorid	1.693	2.163	2.127	2.049	2.085	1.992	1.978	9.49
31)	T	Benzene	3.145	3.303	3.252	3.115	3.084	2.841	3.018	10.42
32)	T	1,2-Dichloroethane	1.251	1.321	1.306	1.246	1.222	1.140	1.204	10.72
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.662	0.866	0.858	0.815	0.804	0.705	0.735	20.59
35)	T	Trichloroethene	0.375	0.526	0.541	0.527	0.544	0.515	0.481	17.86
36)	T	1,2-Dichloropropane	0.341	0.428	0.429	0.418	0.422	0.394	0.385	16.31
37)	T	1,4-Dioxane	0.117	0.170	0.172	0.166	0.162	0.153	0.150	17.48
38)	T	Bromodichloromethan	0.541	0.774	0.796	0.761	0.772	0.727	0.695	17.83
39)	T	cis-1,3-Dichloropro	0.456	0.634	0.652	0.621	0.625	0.592	0.570	16.89
40)	T	4-Methyl-2-pentanon	0.197	0.286	0.291	0.276	0.274	0.257	0.251	18.28
41)	T	Toluene	0.925	1.205	1.235	1.178	1.171	1.097	1.078	17.06
42)	T	trans-1,3-Dichlorop	0.358	0.547	0.552	0.530	0.527	0.507	0.484	17.62
43)	T	1,1,2-Trichloroetha	0.297	0.414	0.421	0.409	0.408	0.392	0.374	16.34
44)	T	Tetrachloroethene	0.418	0.629	0.650	0.627	0.618	0.568	0.553	20.92
45)	T	2-Hexanone	0.402	0.595	0.602	0.569	0.549	0.503	0.509	19.56
46)	T	Chlorodibromomethan	0.413	0.639	0.650	0.640	0.647	0.625	0.576	19.22
47)	T	1,2-Dibromoethane	0.423	0.602	0.607	0.593	0.584	0.563	0.537	17.16
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.886	1.105	1.127	1.082	1.093	1.037	1.011	14.04
50)	T	Ethylbenzene	1.540	1.839	1.871	1.788	1.784	1.640	1.653	16.14
51)	T	m,p-Xylene	1.183	1.455	1.515	1.410	1.368	1.164	1.258	21.93
52)	T	o-Xylene	1.086	1.339	1.378	1.305	1.321	1.216	1.210	16.24
53)	T	Styrene	0.726	1.011	1.039	0.989	1.005	0.941	0.907	17.47
54)	T	Bromoform	0.521	0.710	0.740	0.710	0.725	0.692	0.653	16.52
55)	S	4-Bromofluorobenzen	0.655	0.580	0.600	0.581	0.585	0.570	0.588	5.79
56)	T	1,1,2,2-Tetrachloro	0.966	0.971	1.000	0.901	0.900	0.813	0.875	16.71
57)	T	4-Ethyltoluene	1.613	1.514	1.561	1.454	1.443	1.360	1.418	14.88

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011012V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Jan 11 09:21:45 2012
Response via : Initial Calibration

Calibration Files
2 =01101204.D 4 =01101205.D 5 =01101206.D
6 =01101207.D 7 =01101208.D 8 =01101209.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.372	1.257	1.308	1.186	1.195	1.116	1.178	15.53
59)	T	1,2,4-Trimethylbenz	1.255	1.177	1.212	1.098	1.096	1.025	1.089	15.22
60)	T	1,3-Dichlorobenzene	0.746	0.748	0.780	0.698	0.687	0.648	0.686	13.86
61)	T	1,4-Dichlorobenzene	0.667	0.709	0.741	0.664	0.653	0.602	0.644	13.69
62)	T	Benzyl chloride		0.968	1.034	0.921	0.931	0.824	0.936	8.14
63)	T	1,2-Dichlorobenzene	0.706	0.678	0.707	0.604	0.598	0.524	0.605	17.35
64)	T	1,2,4-Trichlorobenz	0.136	0.135	0.146	0.137	0.135	0.132	0.137	3.57
65)	T	Hexachlorobutadiene	0.406	0.317	0.342	0.311	0.311	0.297	0.319	14.94
66)		Naphthalene	0.216	0.218	0.236	0.225	0.216	0.209	0.220	4.34

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\010212V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Jan 03 10:57:38 2012
Response via : Initial Calibration
Total Cpnds : 66

PK#			Compound Name	QIon	Exp RT	Rel RT	Cal	#Qual	A/H	ID
1	I		Bromochloromethane	130	10.59	1.000	A	2	A	B
2		T	Propylene	41	5.52	0.521	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	6.01	0.567	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	0.593	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	7.34	0.693	A	3	A	B
11		T	Ethanol	45	7.56	0.714	A	2	A	B
12		T	Freon113	101	8.00	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.18	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.47	0.799	A	3	A	B
16		T	2-Propanol	45	8.23	0.777	A	2	A	B
17		T	Methylene chloride	49	8.76	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	10.25	0.968	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26		T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27		T	Chloroform	83	10.60	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.86	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.041	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	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.970	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.46	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	13.23	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43		T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44		T	Tetrachloroethene	166	14.33	1.225	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.78	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	1.175	A	2	A	B
60		T	1,3-Dichlorobenzene	146	18.83	1.211	A	3	A	B
61		T	1,4-Dichlorobenzene	146	18.97	1.220	A	3	A	B
62		T	Benzyl chloride	91	19.18	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	22.78	1.465	A	3	A	B

65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	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

010212V1.M Wed Jan 04 12:18:01 2012

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration

Calibration Files
2 =01131203.D 4 =01131210.D 5 =01131205.D
6 =01131206.D 7 =01131207.D 8 =01131208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.269	1.525	1.476	1.413	1.299	1.418	1.427	8.05
3)	T	Dichlorodifluoromet	2.607	3.508	3.372	3.264	2.997	3.275	3.235	10.53
4)	T	1,2-Dichloro-1,2,2,	2.041	2.870	2.752	2.672	2.466	2.610	2.572	10.36
5)	T	Chloromethane	1.036	1.292	1.249	1.200	1.092	1.178	1.193	8.42
6)	T	Vinyl chloride	1.231	1.732	1.593	1.365	1.031		1.390	20.11
7)	T	1,3-Butadiene	1.223	1.418	1.375	1.298	1.121	1.000	1.177	18.49
8)	T	Bromomethane	1.029	1.421	1.362	1.308	1.224	1.376	1.329	12.92
9)	T	Chloroethane	0.655	0.887	0.853	0.817	0.751	0.846	0.826	12.28
10)	T	Trichlorofluorometh	2.388	3.132	3.003	2.869	2.607	2.852	2.837	9.11
11)	T	Ethanol	0.384	0.400	0.364	0.364	0.316	0.360	0.371	8.25
12)	T	Freon113	2.072	2.622	2.404	2.352	2.081	2.177	2.249	9.67
13)	T	1,1-Dichloroethene	1.743	2.111	1.978	1.899	1.698	1.880	1.900	7.57
14)	T	Acetone	2.304	2.084	1.843	1.875	1.573	1.801	1.920	12.00
15)	T	Carbon disulfide	2.983	3.802	3.645	3.454	3.154	3.493	3.479	9.09
16)	T	2-Propanol	1.966	2.002	1.843	1.818	1.570	1.704	1.822	8.13
17)	T	Methylene chloride	1.680	1.643	1.501	1.479	1.314	1.491	1.529	8.05
18)	T	tert-Butyl Methyl E	2.847	2.866	2.468	2.544	2.165	2.564	2.596	9.40
19)	T	trans-1,2-Dichloroe	1.731	2.034	1.846	1.835	1.636	1.835	1.827	6.74
20)	T	n-Hexane	2.037	2.300	2.107	2.075	1.829	2.008	2.051	6.90
21)	T	1,1-Dichloroethane	2.086	2.418	2.193	2.180	1.934	2.213	2.188	6.94
22)	T	Vinyl acetate	2.654	3.405	2.940	3.017	2.548	2.945	2.941	9.58
23)	T	cis-1,2-Dichloroeth	1.068	1.323	1.206	1.215	1.082	1.260	1.205	8.08
24)	T	2-Butanone	2.232	2.266	1.926	1.981	1.598	1.797	1.934	12.86
25)	T	Ethyl acetate	3.013	2.950	2.683	2.678	2.162	2.416	2.644	11.11
26)	T	Tetrahydrofuran	1.236	1.349	1.218	1.225	1.019	1.097	1.182	9.19
27)	T	Chloroform	1.991	2.315	2.096	2.070	1.784	1.934	2.008	8.65
28)	T	1,1,1-Trichloroetha	1.864	2.273	2.057	2.020	1.738	1.818	1.925	10.52
29)	T	Cyclohexane	2.054	2.259	2.043	1.959	1.674	1.714	1.900	12.78
30)	T	Carbon tetrachlorid	1.798	2.324	2.099	2.095	1.847	2.034	2.024	8.69
31)	T	Benzene	3.077	3.331	2.911	2.984	2.571	3.002	2.987	7.57
32)	T	1,2-Dichloroethane	1.283	1.316	1.161	1.153	0.984	1.069	1.149	10.34
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.828	0.922	0.838	0.818	0.595	0.646	0.734	21.35
35)	T	Trichloroethene	0.419	0.572	0.522	0.528	0.401	0.458	0.463	17.70
36)	T	1,2-Dichloropropane	0.375	0.442	0.385	0.400	0.293	0.353	0.363	15.09
37)	T	1,4-Dioxane	0.131	0.171	0.152	0.154	0.114	0.142	0.142	13.36
38)	T	Bromodichloromethan	0.566	0.752	0.669	0.683	0.509	0.598	0.609	16.01
39)	T	cis-1,3-Dichloropro	0.503	0.656	0.581	0.597	0.444	0.536	0.538	14.50
40)	T	4-Methyl-2-pentanon	0.252	0.302	0.272	0.276	0.205	0.245	0.252	13.99
41)	T	Toluene	0.994	1.174	1.027	1.062	0.786	0.936	0.963	15.49
42)	T	trans-1,3-Dichlorop	0.413	0.565	0.501	0.514	0.383	0.461	0.462	14.79
43)	T	1,1,2-Trichloroetha	0.325	0.415	0.370	0.382	0.285	0.342	0.343	14.37
44)	T	Tetrachloroethene	0.526	0.707	0.646	0.637	0.465	0.488	0.546	22.66
45)	T	2-Hexanone	0.563	0.639	0.573	0.581	0.419	0.492	0.526	16.39
46)	T	Chlorodibromomethan	0.468	0.665	0.595	0.617	0.459	0.528	0.534	17.92
47)	T	1,2-Dibromoethane	0.481	0.631	0.560	0.578	0.427	0.499	0.510	16.65
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.952	1.154	1.019	1.040	0.816	0.928	0.951	14.49
50)	T	Ethylbenzene	1.629	1.780	1.568	1.592	1.233	1.353	1.461	17.04
51)	T	m,p-Xylene	1.267	1.377	1.213	1.182	0.880	0.864	1.060	25.24
52)	T	o-Xylene	1.217	1.309	1.172	1.183	0.911	0.991	1.081	17.54
53)	T	Styrene	0.860	1.024	0.917	0.937	0.718	0.781	0.835	17.11
54)	T	Bromoform	0.639	0.824	0.738	0.742	0.571	0.610	0.655	18.56
55)	S	4-Bromofluorobenzen	0.674	0.608	0.618	0.604	0.581	0.580	0.604	6.09
56)	T	1,1,2,2-Tetrachloro	1.028	0.991	0.862	0.846	0.649	0.703	0.807	21.35
57)	T	4-Ethyltoluene	1.906	1.603	1.453	1.437	1.091	1.213	1.387	22.49

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration

Calibration Files
2 =01131203.D 4 =01131210.D 5 =01131205.D
6 =01131206.D 7 =01131207.D 8 =01131208.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.661	1.352	1.223	1.197	0.917	1.008	1.170	24.28
59)	T	1,2,4-Trimethylbenz	1.543	1.308	1.158	1.132	0.855	0.948	1.106	23.82
60)	T	1,3-Dichlorobenzene	0.898	0.903	0.788	0.759	0.587	0.643	0.729	20.35
61)	T	1,4-Dichlorobenzene	0.806	0.844	0.743	0.718	0.556	0.611	0.682	19.18
62)	T	Benzyl chloride		1.134	0.974	0.962	0.749	0.818	0.927	16.15
63)	T	1,2-Dichlorobenzene	0.871	0.840	0.710	0.688	0.533	0.567	0.669	22.67
64)	T	1,2,4-Trichlorobenz	0.193	0.167	0.134	0.138	0.117	0.142	0.149	18.27
65)	T	Hexachlorobutadiene	0.561	0.395	0.334	0.344	0.273	0.325	0.357	27.86
66)		Naphthalene	0.290	0.249	0.200	0.206	0.173	0.207	0.221	18.99

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 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	5.52	0.521	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	0.567	A	3	A	B
6		T	Vinyl chloride	62	6.21	0.586	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	7.01	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.34	0.692	A	3	A	B
11		T	Ethanol	45	7.57	0.714	A	2	A	B
12		T	Freon113	101	7.99	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.47	0.799	A	3	A	B
16		T	2-Propanol	45	8.24	0.777	A	2	A	B
17		T	Methylene chloride	49	8.75	0.826	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	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	10.29	0.971	A	3	A	B
24		T	2-Butanone	43	10.25	0.967	A	2	A	B
25		T	Ethyl acetate	43	10.20	0.962	A	3	A	B
26		T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27		T	Chloroform	83	10.60	1.001	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	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	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.971	A	3	A	B
35		T	Trichloroethene	130	12.03	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	1.059	A	3	A	B
37		T	1,4-Dioxane	88	12.46	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	13.22	1.131	A	2	A	B
40		T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.94	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	14.33	1.226	A	3	A	B
45		T	2-Hexanone	43	14.41	1.233	A	2	A	B
46		T	Chlorodibromomethane	129	14.75	1.262	A	2	A	B
47		T	1,2-Dibromoethane	107	14.99	1.282	A	2	A	B
48	I		Chlorobenzene-d5	117	15.54	1.000	A	2	A	B
49		T	Chlorobenzene	112	15.58	1.003	A	3	A	B
50		T	Ethylbenzene	91	15.63	1.005	A	2	A	B
51		T	m,p-Xylene	91	15.78	1.015	A	2	A	B
52		T	o-Xylene	91	16.37	1.054	A	2	A	B
53		T	Styrene	104	16.40	1.055	A	3	A	B
54		T	Bromoform	173	16.78	1.080	A	3	A	B
55		S	4-Bromofluorobenzene	95	17.19	1.106	A	2	A	B
56		T	1,1,2,2-Tetrachloroethane	83	17.36	1.117	A	2	A	B
57		T	4-Ethyltoluene	105	17.60	1.133	A	1	A	B
58		T	1,3,5-Trimethylbenzene	105	17.69	1.138	A	2	A	B
59		T	1,2,4-Trimethylbenzene	105	18.27	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	18.97	1.220	A	3	A	B
62		T	Benzyl chloride	91	19.18	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	22.77	1.465	A	3	A	B
65		T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66			Naphthalene	128	23.45	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
--------------------------------------------------------------------------------
          011312V1.M     Mon Jan 16 13:59:03 2012
```

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011412\01131212.D Vial: 11
Acq On : 14 Jan 2012 5:22 pm Operator: RACHEL HILL
Sample : ICV VOA1 011312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 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	101	0.00
2	T	Propylene	1.427	1.524	-6.8	101	-0.01
3	T	Dichlorodifluoromethane	3.235	3.527	-9.0	102	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.572	2.847	-10.7	100	0.00
5	T	Chloromethane	1.193	1.278	-7.1	100	0.00
6	T	Vinyl chloride	1.390	1.721	-23.8	101	0.00
7	T	1,3-Butadiene	1.177	1.414	-20.1	101	0.00
8	T	Bromomethane	1.329	1.388	-4.4	99	0.00
9	T	Chloroethane	0.826	0.862	-4.4	98	-0.01
10	T	Trichlorofluoromethane	2.837	3.033	-6.9	98	0.00
11	T	Ethanol	0.371	0.369	0.5	93	0.00
12	T	Freon113	2.249	2.430	-8.0	94	0.00
13	T	1,1-Dichloroethene	1.900	1.998	-5.2	96	0.00
14	T	Acetone	1.920	1.878	2.2	91	0.00
15	T	Carbon disulfide	3.479	3.649	-4.9	97	0.00
16	T	2-Propanol	1.822	1.883	-3.3	95	0.00
17	T	Methylene chloride	1.529	1.531	-0.1	94	0.00
18	T	tert-Butyl Methyl Ether	2.596	2.544	2.0	90	0.00
19	T	trans-1,2-Dichloroethene	1.827	1.902	-4.1	95	0.00
20	T	n-Hexane	2.051	2.150	-4.8	95	0.00
21	T	1,1-Dichloroethane	2.188	2.267	-3.6	95	0.00
22	T	Vinyl acetate	2.941	3.032	-3.1	90	0.00
23	T	cis-1,2-Dichloroethene	1.205	1.233	-2.3	94	0.00
24	T	2-Butanone	1.934	1.960	-1.3	87	0.00
25	T	Ethyl acetate	2.644	2.586	2.2	89	0.00
26	T	Tetrahydrofuran	1.182	1.250	-5.8	94	0.00
27	T	Chloroform	2.008	2.181	-8.6	95	0.00
28	T	1,1,1-Trichloroethane	1.925	2.149	-11.6	96	0.00
29	T	Cyclohexane	1.900	2.129	-12.1	95	0.00
30	T	Carbon tetrachloride	2.024	2.183	-7.9	95	0.00
31	T	Benzene	2.987	3.020	-1.1	92	0.00
32	T	1,2-Dichloroethane	1.149	1.216	-5.8	93	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	104	0.00
34	T	Heptane	0.734	0.866	-18.0	97	0.00
35	T	Trichloroethene	0.463	0.524	-13.2	95	0.00
36	T	1,2-Dichloropropane	0.363	0.394	-8.5	92	0.00
37	T	1,4-Dioxane	0.142	0.153	-7.7	93	0.00
38	T	Bromodichloromethane	0.609	0.686	-12.6	95	0.00
39	T	cis-1,3-Dichloropropene	0.538	0.588	-9.3	93	0.00
40	T	4-Methyl-2-pentanone	0.252	0.273	-8.3	94	0.00
41	T	Toluene	0.963	1.051	-9.1	93	0.00
42	T	trans-1,3-Dichloropropene	0.462	0.506	-9.5	93	0.00
43	T	1,1,2-Trichloroethane	0.343	0.372	-8.5	93	0.00
44	T	Tetrachloroethene	0.546	0.656	-20.1	96	0.00
45	T	2-Hexanone	0.526	0.574	-9.1	93	0.00
46	T	Chlorodibromomethane	0.534	0.608	-13.9	95	0.00
47	T	1,2-Dibromoethane	0.510	0.570	-11.8	94	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
49	T	Chlorobenzene	0.951	1.038	-9.1	94	0.00
50	T	Ethylbenzene	1.461	1.615	-10.5	95	0.00
51	T	m,p-Xylene	1.060	1.263	-19.2	96	0.00
52	T	o-Xylene	1.081	1.202	-11.2	96	0.00
53	T	Styrene	0.835	0.940	-12.6	96	0.00
54	T	Bromoform	0.655	0.757	-15.6	96	0.00
55	S	4-Bromofluorobenzene	0.604	0.621	-2.8	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\011412\01131212.D Vial: 11
Acq On : 14 Jan 2012 5:22 pm Operator: RACHEL HILL
Sample : ICV VOA1 011312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 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	0.807	0.906	-12.3	96	0.00
57	T	4-Ethyltoluene	1.387	1.476	-6.4	96	0.00
58	T	1,3,5-Trimethylbenzene	1.170	1.248	-6.7	96	0.00
59	T	1,2,4-Trimethylbenzene	1.106	1.197	-8.2	96	0.00
60	T	1,3-Dichlorobenzene	0.729	0.821	-12.6	95	0.00
61	T	1,4-Dichlorobenzene	0.682	0.767	-12.5	95	0.00
62	T	Benzyl chloride	0.927	1.015	-9.5	94	0.00
63	T	1,2-Dichlorobenzene	0.669	0.750	-12.1	93	0.00
64	T	1,2,4-Trichlorobenzene	0.149	0.135	9.4	84	0.00
65	T	Hexachlorobutadiene	0.357	0.350	2.0	93	0.00
66		Naphthalene	0.221	0.204	7.7	85	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011412\01131212.D Vial: 11
Acq On : 14 Jan 2012 5:22 pm Operator: RACHEL HILL
Sample : ICV VOA1 011312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 16 9:18 2012 Quant Results File: 011312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration
DataAcq Meth : 011312V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	633708	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1958796	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1370999	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	850900	12.85	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 102.80%				
Target Compounds							Qvalue
2) Propylene	5.51	41	788303	10.90	ppbv		100
3) Dichlorodifluoromethane	5.59	85	1644978	10.03	ppbv		100
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	1371123	10.52	ppbv		90
5) Chloromethane	6.00	50	615599	10.18	ppbv		99
6) Vinyl chloride	6.21	62	820367	11.64	ppbv		99
7) 1,3-Butadiene	6.27	39	702621	11.77	ppbv		96
8) Bromomethane	6.85	94	654211	9.71	ppbv		99
9) Chloroethane	6.99	64	402164	9.60	ppbv		97
10) Trichlorofluoromethane	7.33	101	1476102	10.26	ppbv		100
11) Ethanol	7.56	45	172108	9.15	ppbv		100
12) Freon113	7.99	101	1207115	10.59	ppbv		99
13) 1,1-Dichloroethene	8.09	61	1002822	10.41	ppbv		92
14) Acetone	8.18	43	952172	9.78	ppbv		96
15) Carbon disulfide	8.46	76	1794624	10.18	ppbv	#	100
16) 2-Propanol	8.23	45	963997	10.44	ppbv	#	1
17) Methylene chloride	8.75	49	776281	10.02	ppbv		84
18) tert-Butyl Methyl Ether	8.95	73	1276657	9.70	ppbv	#	88
19) trans-1,2-Dichloroethene	9.03	61	944782	10.20	ppbv		88
20) n-Hexane	9.22	57	1101043	10.59	ppbv		96
21) 1,1-Dichloroethane	9.60	63	1114616	10.05	ppbv		97
22) Vinyl acetate	9.53	43	1521871	10.21	ppbv	#	96
23) cis-1,2-Dichloroethene	10.28	96	612534	10.02	ppbv		89
24) 2-Butanone	10.25	43	983670	10.03	ppbv		92
25) Ethyl acetate	10.19	43	1284844	9.59	ppbv	#	100
26) Tetrahydrofuran	10.58	42	633932	10.58	ppbv		90
27) Chloroform	10.60	83	1083380	10.64	ppbv		99
28) 1,1,1-Trichloroethane	10.85	97	1045666	10.71	ppbv		97
29) Cyclohexane	10.86	56	1057679	10.98	ppbv		90
30) Carbon tetrachloride	11.02	117	1051536	10.25	ppbv		99
31) Benzene	11.30	78	1469556	9.70	ppbv		96
32) 1,2-Dichloroethane	11.38	62	597990	10.27	ppbv		98
34) Heptane	11.35	43	1344085	11.68	ppbv	#	92
35) Trichloroethene	12.03	130	788067	10.87	ppbv		97
36) 1,2-Dichloropropane	12.39	63	604975	10.63	ppbv		96
37) 1,4-Dioxane	12.46	88	229697	10.33	ppbv	#	83
38) Bromodichloromethane	12.67	83	1032358	10.82	ppbv		100
39) cis-1,3-Dichloropropene	13.22	75	876027	10.39	ppbv		99
40) 4-Methyl-2-pentanone	13.33	58	428246	10.86	ppbv		93
41) Toluene	13.63	91	1614138	10.70	ppbv		99
42) trans-1,3-Dichloropropene	13.93	75	721891	9.98	ppbv		100
43) 1,1,2-Trichloroethane	14.21	97	571639	10.63	ppbv		98
44) Tetrachloroethene	14.33	166	987374	11.54	ppbv		100
45) 2-Hexanone	14.41	43	881053	10.69	ppbv		97
46) Chlorodibromomethane	14.76	129	934052	11.16	ppbv		99
47) 1,2-Dibromoethane	14.99	107	857278	10.73	ppbv		99
49) Chlorobenzene	15.59	112	1127111	10.81	ppbv	#	96
50) Ethylbenzene	15.62	91	1736253	10.83	ppbv		96
51) m,p-Xylene	15.78	91	2659167	22.87	ppbv		98
52) o-Xylene	16.37	91	1318756	11.13	ppbv	#	94

(#) = qualifier out of range (m) = manual integration
01131212.D 011312V1.M Mon Jan 16 13:59:15 2012

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\011412\01131212.D Vial: 11
Acq On : 14 Jan 2012 5:22 pm Operator: RACHEL HILL
Sample : ICV VOA1 011312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 16 9:18 2012 Quant Results File: 011312V1.RES

Quant Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration
DataAcq Meth : 011312V1

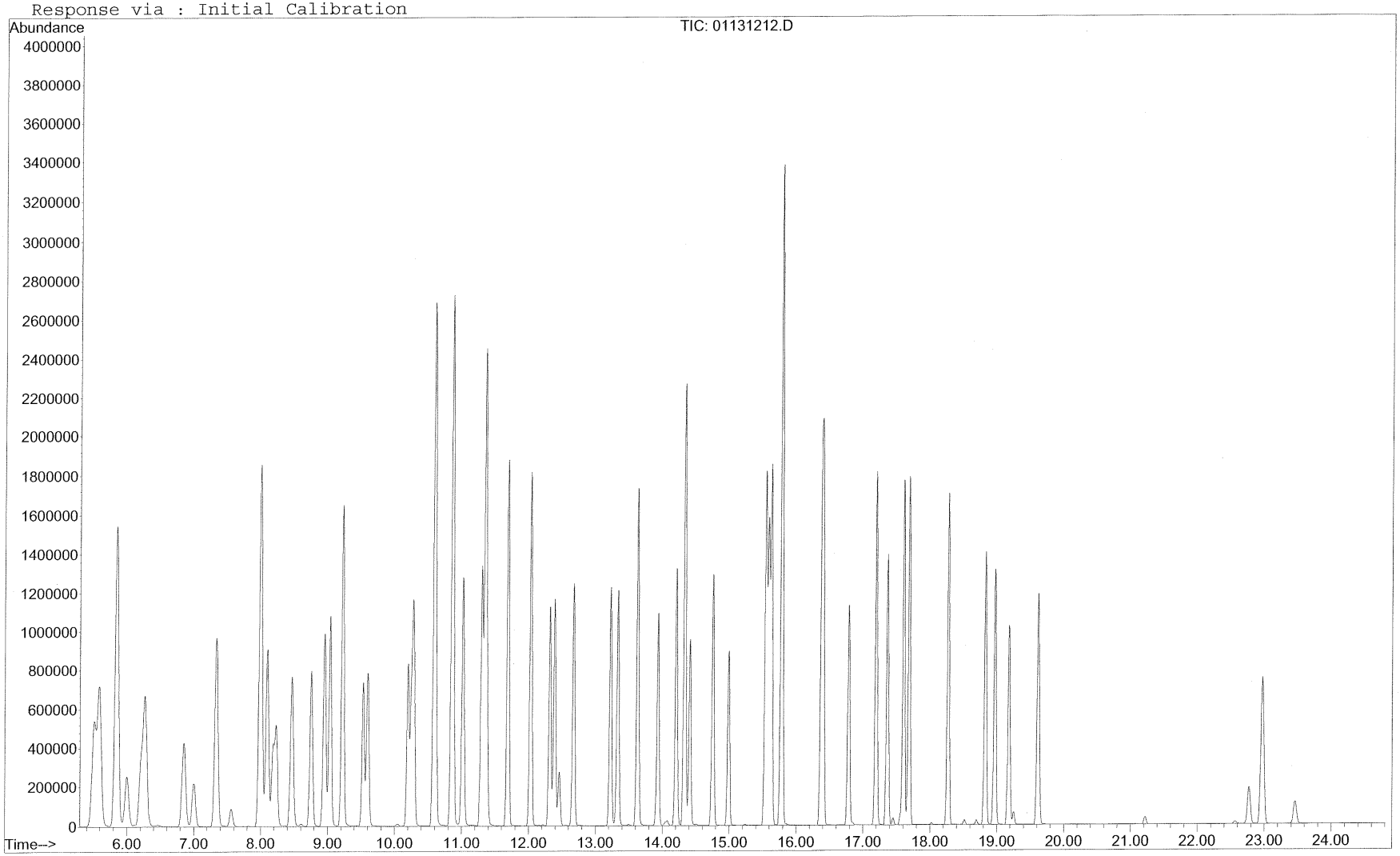
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
53) Styrene	16.40	104	1010072	11.03	ppbv	98
54) Bromoform	16.78	173	797456	11.09	ppbv	99
56) 1,1,2,2-Tetrachloroethane	17.36	83	993682	11.23	ppbv	100
57) 4-Ethyltoluene	17.60	105	1586873	10.43	ppbv	99
58) 1,3,5-Trimethylbenzene	17.68	105	1328236	10.35	ppbv	99
59) 1,2,4-Trimethylbenzene	18.27	105	1286419	10.60	ppbv	99
60) 1,3-Dichlorobenzene	18.82	146	873008	10.92	ppbv	98
61) 1,4-Dichlorobenzene	18.97	146	807201	10.79	ppbv	99
62) Benzyl chloride	19.17	91	1079901	10.62	ppbv	99
63) 1,2-Dichlorobenzene	19.61	146	797878	10.87	ppbv	98
64) 1,2,4-Trichlorobenzene	22.77	180	135000	8.27	ppbv	97
65) Hexachlorobutadiene	22.97	225	360872	9.21	ppbv	99
66) Naphthalene	23.46	128	205443	8.48	ppbv	99

(#) = qualifier out of range (m) = manual integration
01131212.D 011312V1.M Mon Jan 16 13:59:15 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\011412\01131212.D Vial: 11
Acq On : 14 Jan 2012 5:22 pm Operator: RACHEL HILL
Sample : ICV VOA1 011312 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Jan 16 9:18 2012 Quant Results File: 011312V1.RES

Method : C:\HPCHEM\1\METHODS\011312V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Jan 16 09:17:51 2012
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111222A **Run No.:** 45120

Analytical Run Date: 12/22/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 122211 VOA9	BFB_TUNE	TUNE	R45120	12/22/2011 3:47:00 PM	Robert Lynch		
CCV 122211 VOA9	MA_APH	CCV	R45120	12/22/2011 4:30:00 PM	Robert Lynch		
RLVS 122211 VOA9	MA_APH	RLVS	R45120	12/22/2011 5:14:00 PM	Robert Lynch		
Blank 122211 VOA	MA_APH	MBLK	R45120	12/22/2011 6:15:00 PM	Charles O`Bryan		
1112396-024A	MA_APH	SAMP	R45120	12/22/2011 7:01:00 PM	Robert Lynch		
1112696-028A	MA_APH	SAMP	R45120	12/22/2011 9:50:00 PM	Robert Lynch		Sample was over-diluted. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112696-028Adup	MA_APH	DUP	R45120	12/22/2011 10:33:00 PM	Charles O`Bryan		
1112696-003A	MA_APH	SAMP	R45120	12/23/2011 2:05:00 AM	Robert Lynch		
1112696-005A	MA_APH	SAMP	R45120	12/23/2011 3:31:00 AM	Robert Lynch		
1112148-018A	MA_APH	SAMP	R45120	12/23/2011 9:13:00 AM	Robert Lynch		
1112398-008A	MA_APH	SAMP	R45120	12/23/2011 9:55:00 AM	Robert Lynch		
1112398-009A	MA_APH	SAMP	R45120	12/23/2011 10:37:00 AM	Robert Lynch		
1112398-013A	MA_APH	SAMP	R45120	12/23/2011 11:20:00 AM	Robert Lynch		
RLVS 122211 VOA9	MA_APH	RLVS	R45120	12/23/2011 3:43:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45120

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
887794	BFB1 122211 VOA9	BFB_TUNE	TUNE	.\1\DATA\122211	12/22/2011 3:47:	1	R45120		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		59.3	59.3		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.1	96.1		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.6	26.6		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
887795	CCV 122211 VOA9	MA_APH	CCV	.\1\DATA\122211	12/22/2011 4:30:	1	R45120		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	226.12	226.12		234	0	0	0	0	0	97%	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	261.36	261.36		266	0	0	0	0	0	98%	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	373.55	373.55		378	0	0	0	0	0	99%	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	89.16	89.16		89.5	0	0	0	0	0	100%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122211\12221102.D Vial: 2
Acq On : 22 Dec 2011 4:30 pm Operator: RACHEL HILL
Sample : CCV 122211 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 13:30 2011 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

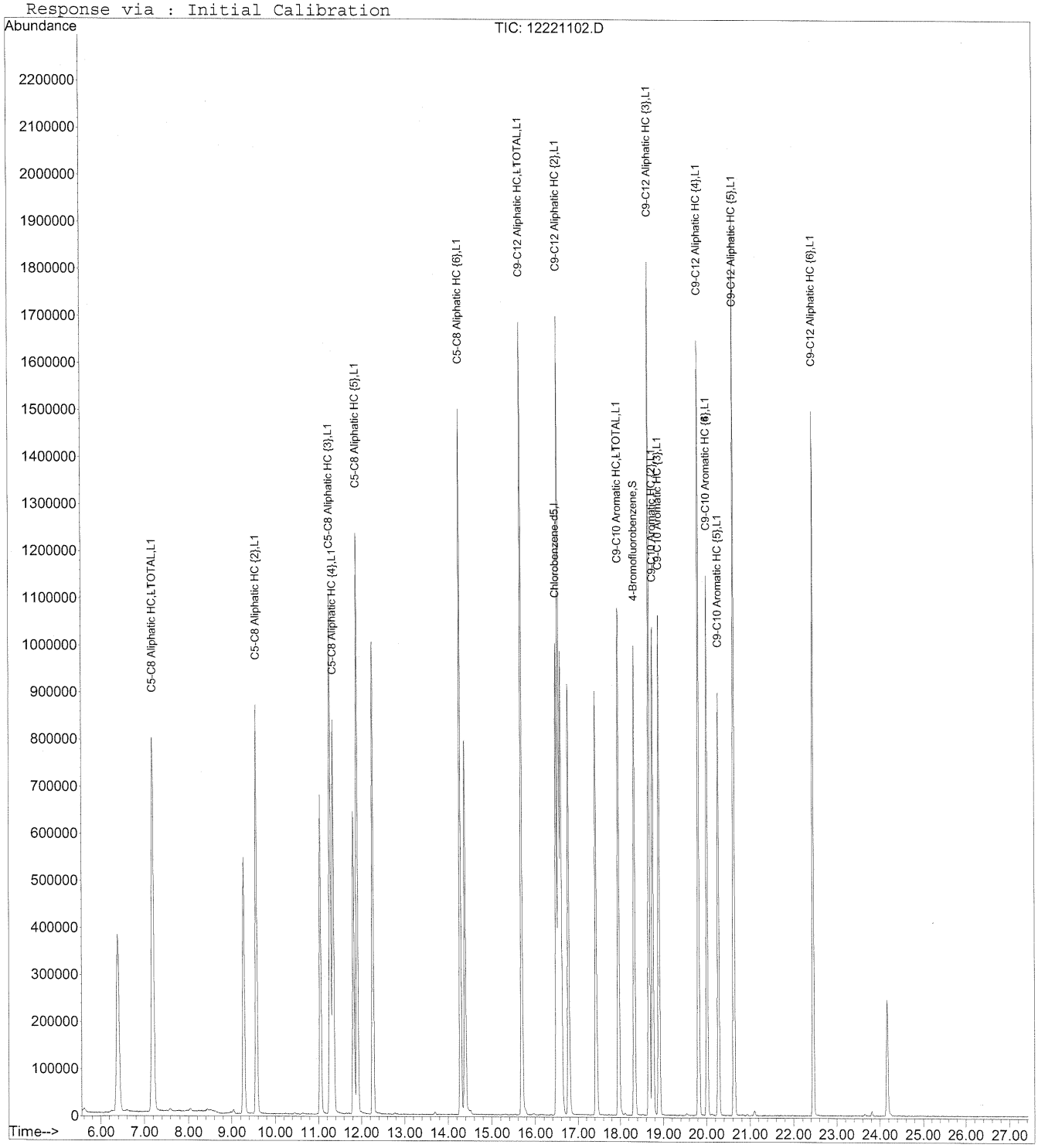
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	673359	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	485347	89.16	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.62%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2743579	29.36	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2146850	34.45	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2842072	41.03	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2072548	33.11	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2680809	40.13	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3151668	47.47	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15637526m	226.12	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3757447	53.01	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3726266	54.03	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3693058	59.87	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3560423	60.01	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3741770	70.45	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2969519	76.94	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21448483m	373.55	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	237784	50.25	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	252255	49.99	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	369267	50.99	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	85497	57.45	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	287770	52.10	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	207124	58.06	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1439697m	261.36	ug/m3	

(#) = qualifier out of range (m) = manual integration
12221102.D 122111V9.M Tue Dec 27 15:12:20 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122211\12221102.D Vial: 2
Acq On : 22 Dec 2011 4:30 pm Operator: RACHEL HILL
Sample : CCV 122211 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 27 13:30 2011 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



12221102.D 122111V9.M Tue Dec 27 15:12:20 2011 Page 2

RTI Laboratories

Run ID: VOA9_111227A **Run No.:** 45142

Analytical Run Date: 12/27/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 122711 VOA9	BFB_TUNE	TUNE	R45142	12/27/2011 9:59:00 AM	Robert Lynch		
CCV 122711 VOA9	MA_APH	CCV	R45142	12/27/2011 10:42:00 AM	Robert Lynch		
RLVS 122711 VOA9	MA_APH	RLVS	R45142	12/27/2011 11:25:00 AM	Robert Lynch		
Blank 122711 VOA	MA_APH	MBLK	R45142	12/27/2011 12:28:00 PM	Charles O`Bryan		
1112398-014A	MA_APH	SAMP	R45142	12/27/2011 1:12:00 PM	Robert Lynch		
1112398-015A	MA_APH	SAMP	R45142	12/27/2011 1:56:00 PM	Robert Lynch		
1112398-016A	MA_APH	SAMP	R45142	12/27/2011 2:39:00 PM	Robert Lynch		
1112398-025A	MA_APH	SAMP	R45142	12/27/2011 3:21:00 PM	Robert Lynch		
1112696-011A	MA_APH	SAMP	R45142	12/27/2011 5:36:00 PM	Robert Lynch		
1112696-031A	MA_APH	SAMP	R45142	12/27/2011 6:19:00 PM	Robert Lynch		Sample was over diluted. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112696-031Adup	MA_APH	DUP	R45142	12/27/2011 7:01:00 PM	Charles O`Bryan		
1112696-020A	MA_APH	SAMP	R45142	12/27/2011 8:36:00 PM	Robert Lynch		
1112696-004A	MA_APH	SAMP	R45142	12/28/2011 2:13:00 AM	Robert Lynch		
RLVS2 122711 VOA	MA_APH	RLVS	R45142	12/28/2011 4:27:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45142

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888132	BFB 122711 VOA9	BFB_TUNE	TUNE	:\1\DATA\122711	12/27/2011 9:59:	1	R45142		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		7.7	7.7		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.5	97.5		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		26.1	26.1		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		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888133	CCV 122711 VOA9	MA_APH	CCV	:\1\DATA\122711	12/27/2011 10:4	1	R45142		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	235.47	235.47		234	0	0	0	0	0	101%	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	262.09	262.09		266	0	0	0	0	0	99%	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	379	379		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	89.34	89.34		89.5	0	0	0	0	0	100%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122711\12271102.D Vial: 2
Acq On : 27 Dec 2011 10:42 am Operator: RACHEL HILL
Sample : CCV 122711 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 28 11:05 2011 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

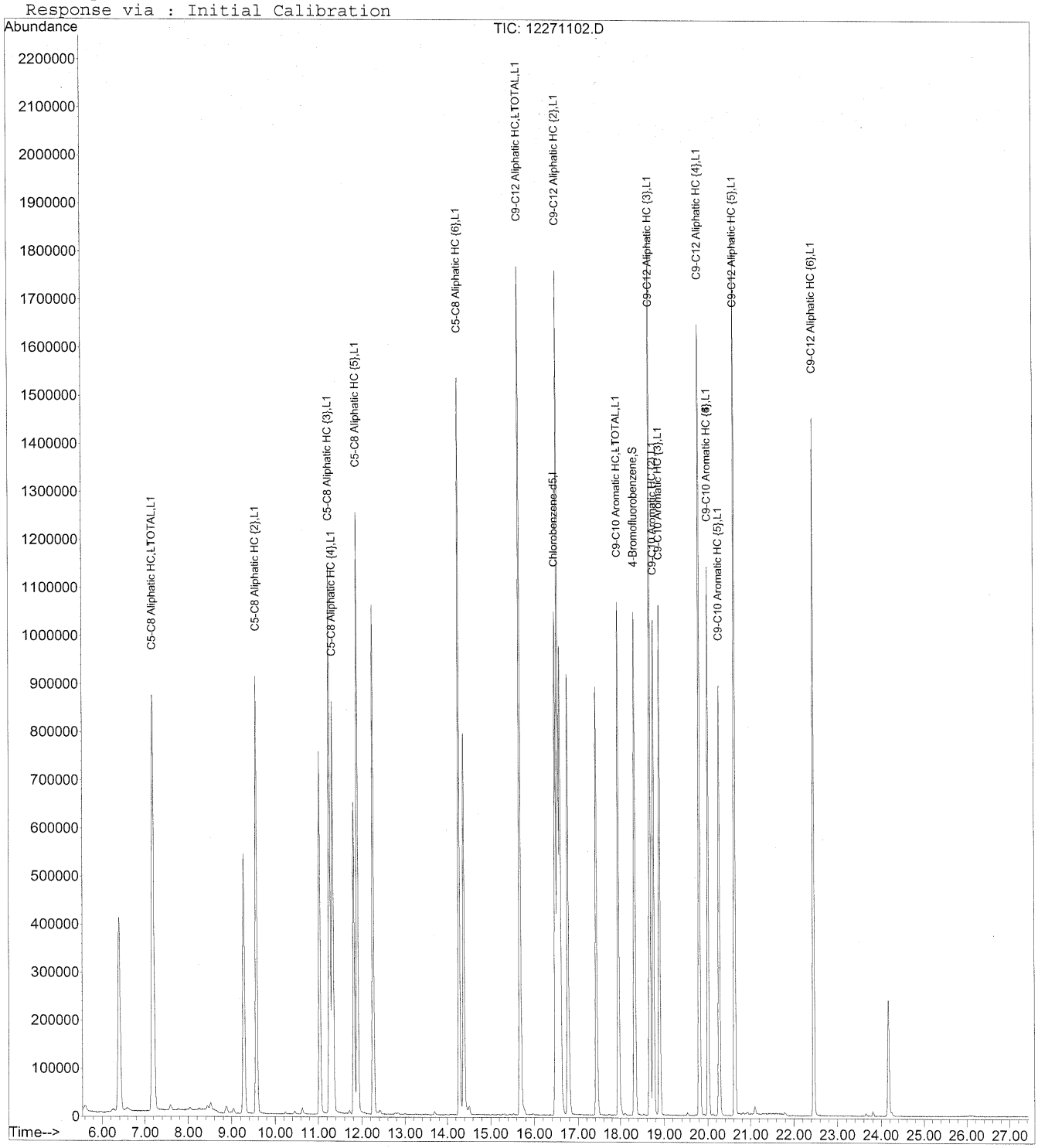
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	713747	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	515525	89.34	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.82%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2992675	32.02	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2239003	35.93	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2905138	41.94	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2139730	34.19	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2758153	41.29	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3249056	48.94	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16283755m	235.47	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3953207	55.77	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3819098	55.38	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3730987	60.49	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3580495	60.35	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3741503	70.44	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	2936322	76.08	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21761612m	379.00	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	235417	49.75	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	251902	49.92	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	371777	51.34	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	86354	58.03	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	288071	52.15	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	210230	58.94	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1443751m	262.09	ug/m3	

(#) = qualifier out of range (m) = manual integration
12271102.D 122111V9.M Wed Dec 28 14:42:00 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122711\12271102.D Vial: 2
Acq On : 27 Dec 2011 10:42 am Operator: RACHEL HILL
Sample : CCV 122711 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 28 11:05 2011 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111228A **Run No.:** 45164

Analytical Run Date: 12/28/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 122811 VOA9	BFB_TUNE	TUNE	R45164	12/28/2011 9:40:00 AM	Robert Lynch		
CCV 122811 VOA9	MA_APH	CCV	R45164	12/28/2011 10:24:00 AM	Robert Lynch		
RLVS 122811 VOA9	MA_APH	RLVS	R45164	12/28/2011 11:06:00 AM	Robert Lynch		
Blank 122811 VOA	MA_APH	MBLK	R45164	12/28/2011 12:01:00 PM	Charles O`Bryan		
1112398-021A	MA_APH	SAMP	R45164	12/28/2011 3:52:00 PM	Robert Lynch		
1112398-026A	MA_APH	SAMP	R45164	12/28/2011 4:36:00 PM	Robert Lynch		
1112696-026A	MA_APH	SAMP	R45164	12/28/2011 7:41:00 PM	Robert Lynch		
1112696-026Adup	MA_APH	DUP	R45164	12/28/2011 8:24:00 PM	Charles O`Bryan		
1112696-027A	MA_APH	SAMP	R45164	12/28/2011 9:06:00 PM	Robert Lynch		
1112696-014A	MA_APH	SAMP	R45164	12/29/2011 2:48:00 AM	Robert Lynch		
RLVS2 122811 VOA	MA_APH	RLVS	R45164	12/29/2011 4:13:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45164

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
888402	BFB 122811 VOA9	BFB_TUNE	TUNE	:\1\DATA\122811	12/28/2011 9:40:	1	R45164		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		58.9	58.9		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.3	7.3		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		6.5	6.5		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.3	26.3		100	0	0	0	0	0	26%	8	40	0%	
75	M		50.8	50.8		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		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
888403	CCV 122811 VOA9	MA_APH	CCV	:\1\DATA\122811	12/28/2011 10:2	1	R45164		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	255.72	255.72		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	293.26	293.26		266	0	0	0	0	0	110%	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	416.15	416.15		378	0	0	0	0	0	110%	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	88.07	88.07		89.5	0	0	0	0	0	98%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\122811\12281102.D Vial: 2
Acq On : 28 Dec 2011 10:24 am Operator: RACHEL HILL
Sample : CCV 122811 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 30 11:07 2011 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

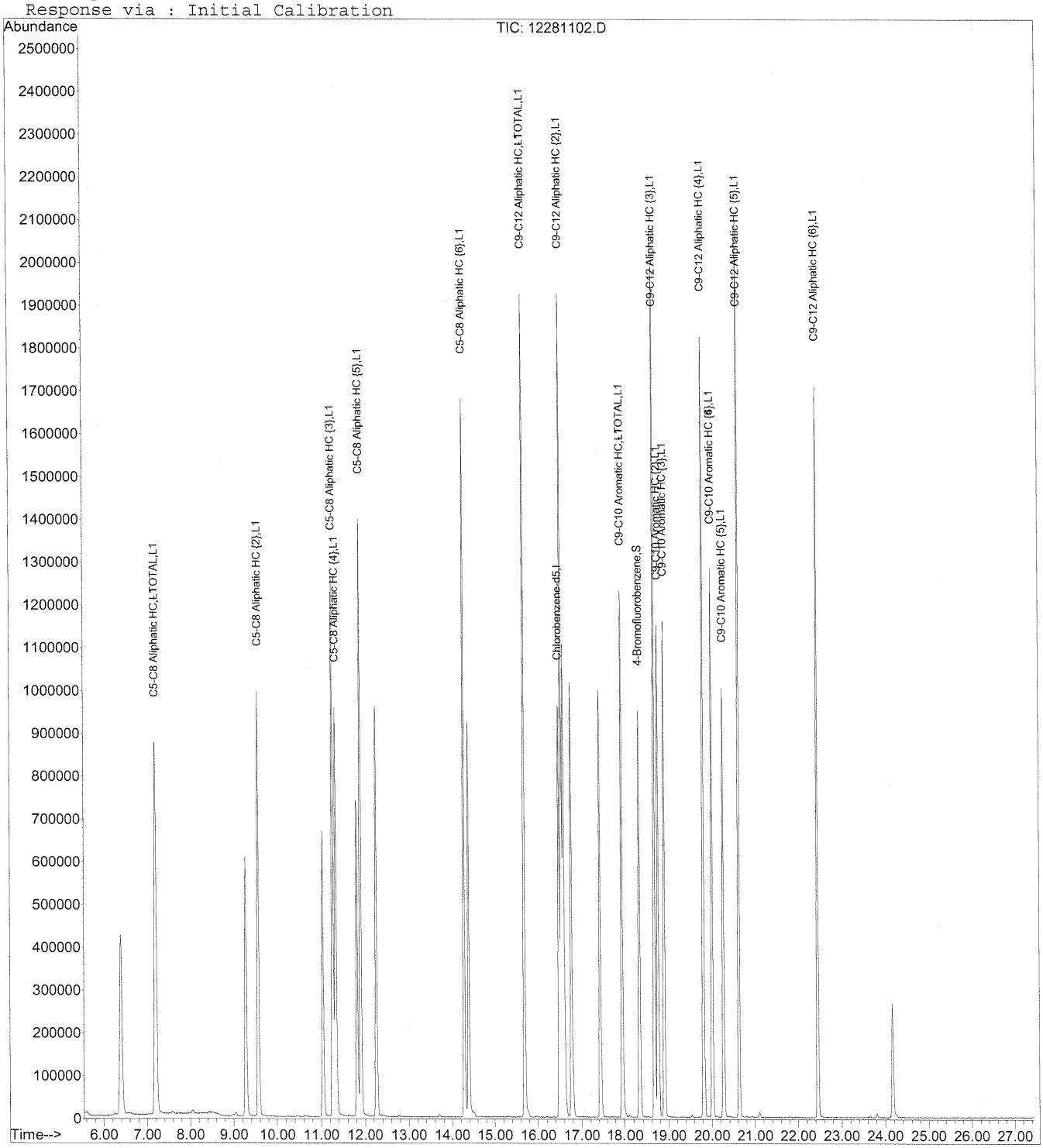
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	656630	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	467538	88.07	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.40%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	3030071	32.43	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2468928	39.62	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3149018	45.46	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2446482	39.09	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3058124	45.78	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	3531460	53.19	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	17684083m	255.72	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4284916	60.45	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	3989510	57.85	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	4132072	66.99	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3961436	66.77	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	4180428	78.71	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	3346212	86.70	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23894574m	416.15	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	267158	56.46	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	284981	56.48	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	414210	57.20	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	95051	63.87	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	322143	58.32	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	231878	65.00	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1615421m	293.26	ug/m3	

(#) = qualifier out of range (m) = manual integration
12281102.D 122111V9.M Mon Jan 02 10:27:02 2012 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\122811\12281102.D Vial: 2
Acq On : 28 Dec 2011 10:24 am Operator: RACHEL HILL
Sample : CCV 122811 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Dec 30 11:07 2011 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120102A **Run No.:** 45192

Analytical Run Date: 1/2/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

Run Comments: For 1112696-012a the vent tip on the bottle was unscrewed when we received it. Sample was at ambient temperature. Was instructed to fill with nitrogen and run accordingly.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 010212 VOA9	BFB_TUNE	TUNE	R45192	1/2/2012 9:30:00 AM	Robert Lynch		
CCV 010212 VOA9	MA_APH	CCV	R45192	1/2/2012 10:13:00 AM	Robert Lynch		
RLVS 010212 VOA9	MA_APH	RLVS	R45192	1/2/2012 10:56:00 AM	Robert Lynch		
Blank 010212 VOA	MA_APH	MBLK	R45192	1/2/2012 11:53:00 AM	Charles O`Bryan		
1112398-027A	MA_APH	SAMP	R45192	1/2/2012 12:37:00 PM	Robert Lynch		
1112398-022A	MA_APH	SAMP	R45192	1/2/2012 1:21:00 PM	Robert Lynch		
1112398-023A	MA_APH	SAMP	R45192	1/2/2012 2:05:00 PM	Robert Lynch		
1112696-012A	MA_APH	SAMP	R45192	1/2/2012 2:50:00 PM	Robert Lynch		Vent tip on bottle received loose/unscrewed causing leakage.
1112696-013A	MA_APH	SAMP	R45192	1/2/2012 3:33:00 PM	Robert Lynch		
1112696-016A	MA_APH	SAMP	R45192	1/2/2012 5:00:00 PM	Robert Lynch		Sample over-diluted. Will re-analyzed at lower dilution. Reported here to show that sample and duplicate were analyzed.
1112696-016Adup	MA_APH	DUP	R45192	1/2/2012 5:44:00 PM	Charles O`Bryan		
1112696-018A	MA_APH	SAMP	R45192	1/2/2012 7:11:00 PM	Robert Lynch		
1112696-019A	MA_APH	SAMP	R45192	1/2/2012 7:55:00 PM	Robert Lynch		
1112696-010A	MA_APH	SAMP	R45192	1/2/2012 10:50:00 PM	Robert Lynch		
RLVS2 010212 VOA	MA_APH	RLVS	R45192	1/2/2012 11:34:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45192

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889282	BFB 010212 VOA9	BFB_TUNE	TUNE	.\1\DATA\010212	1/2/2012 9:30:00	1	R45192		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		58.8	58.8		100	0	0	0	0	0	59%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.1	97.1		100	0	0	0	0	0	97%	93	101	0%	
177	M		6.7	6.7		100	0	0	0	0	0	7%	5	9	0%	
50	M		24.1	24.1		100	0	0	0	0	0	24%	8	40	0%	
75	M		49.1	49.1		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
889283	CCV 010212 VOA9	MA_APH	CCV	.\1\DATA\010212	1/2/2012 10:13:0	1	R45192		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	237.22	237.22		234	0	0	0	0	0	101%	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	265.15	265.15		266	0	0	0	0	0	100%	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	354.42	354.42		378	0	0	0	0	0	94%	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	88.12	88.12		89.5	0	0	0	0	0	98%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010212\01021202.D Vial: 2
Acq On : 2 Jan 2012 10:13 am Operator: RACHEL HILL
Sample : CCV 010212 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 12:23 2012 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

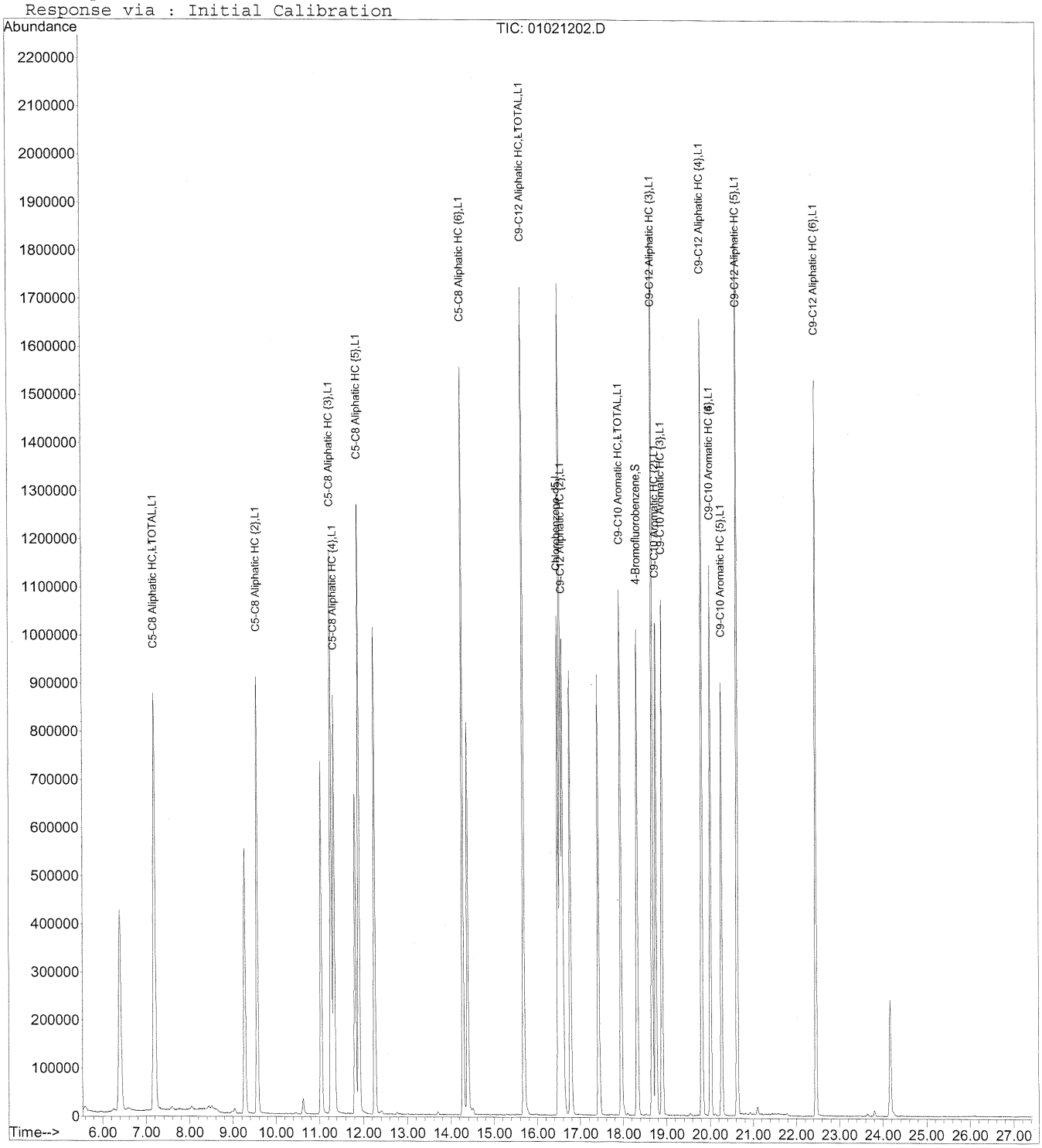
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	700152	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	498806	88.12	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.46%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2990467	32.00	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2265702	36.36	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2902041	41.89	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2179995	34.83	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.90	TIC	2819495	42.21	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	3246983	48.91	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16404683m	237.22	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3966246	55.95	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.60	TIC	2189140	31.74	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3755879	60.89	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.81	TIC	3607207	60.80	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3775469	71.08	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	3055901	79.18	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	20349842m	354.42	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	240260	50.77	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	254603	50.46	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.89	120	377067	52.07	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	86755	58.30	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	292354	52.93	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	209535	58.74	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1460574m	265.15	ug/m3	

(#) = qualifier out of range (m) = manual integration
01021202.D 122111V9.M Tue Jan 03 15:54:30 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010212\01021202.D Vial: 2
Acq On : 2 Jan 2012 10:13 am Operator: RACHEL HILL
Sample : CCV 010212 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 3 12:23 2012 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



01021202.D 122111V9.M Tue Jan 03 15:54:30 2012 Page 2

RTI Laboratories

Run ID: VOA9_120103A **Run No.:** 45213

Analytical Run Date: 1/3/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 010312 VOA9	BFB_TUNE	TUNE	R45213	1/3/2012 9:34:00 AM	Robert Lynch		
CCV 010312 VOA9	MA_APH	CCV	R45213	1/3/2012 10:18:00 AM	Robert Lynch		
RLVS 010312 VOA9	MA_APH	RLVS	R45213	1/3/2012 11:03:00 AM	Robert Lynch		
Blank 010312 VOA	MA_APH	MBLK	R45213	1/3/2012 11:55:00 AM	Charles O`Bryan		
1112696-028A	MA_APH	SAMP	R45213	1/3/2012 12:39:00 PM	Robert Lynch		
1112696-028ADUP2	MA_APH	DUP	R45213	1/3/2012 1:24:00 PM	Charles O`Bryan		
1112696-029A	MA_APH	SAMP	R45213	1/3/2012 2:09:00 PM	Robert Lynch		
1112696-030A	MA_APH	SAMP	R45213	1/3/2012 2:54:00 PM	Robert Lynch		
1112696-031A	MA_APH	SAMP	R45213	1/3/2012 3:39:00 PM	Charles O`Bryan		Sample was initially analyze at a higher dilution. Results indicated that a lower dilution would be more applicable,
1112696-024A	MA_APH	SAMP	R45213	1/3/2012 4:23:00 PM	Robert Lynch		
1112696-001A	MA_APH	SAMP	R45213	1/3/2012 5:08:00 PM	Robert Lynch		
1112696-022A	MA_APH	SAMP	R45213	1/3/2012 6:34:00 PM	Robert Lynch		
1112696-023A	MA_APH	SAMP	R45213	1/3/2012 7:18:00 PM	Robert Lynch		
1112696-015A	MA_APH	SAMP	R45213	1/3/2012 11:37:00 PM	Robert Lynch		
1112696-016A	MA_APH	SAMP	R45213	1/4/2012 12:20:00 AM	Robert Lynch		
1112696-017A	MA_APH	SAMP	R45213	1/4/2012 1:03:00 AM	Robert Lynch		
1112696-006A	MA_APH	SAMP	R45213	1/4/2012 1:46:00 AM	Robert Lynch		
1112696-007A	MA_APH	SAMP	R45213	1/4/2012 2:29:00 AM	Robert Lynch		
RLVS2 010312 VOA	MA_APH	RLVS	R45213	1/4/2012 3:12:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

25-Jan-12

RunNo 45213

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
889602	BFB 010312 VOA9	BFB_TUNE	TUNE	\1\DATA\010312	1/3/2012 9:34:00	1	R45213		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		59.9	59.9		100	0	0	0	0	0	60%	50	120	0%	
175	M		7.1	7.1		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		6.4	6.4		100	0	0	0	0	0	6%	5	9	0%	
50	M		25.8	25.8		100	0	0	0	0	0	26%	8	40	0%	
75	M		50	50		100	0	0	0	0	0	50%	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
889621	CCV 010312 VOA9	MA_APH	CCV	\1\DATA\010312	1/3/2012 10:18:0	1	R45213		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	220.54	220.54		234	0	0	0	0	0	94%	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	249.81	249.81		266	0	0	0	0	0	94%	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	332.92	332.92		378	0	0	0	0	0	88%	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	86.42	86.42		89.5	0	0	0	0	0	97%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010312\01031202.D Vial: 2
Acq On : 3 Jan 2012 10:18 am Operator: RACHEL HILL
Sample : CCV 010312 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 9:44 2012 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

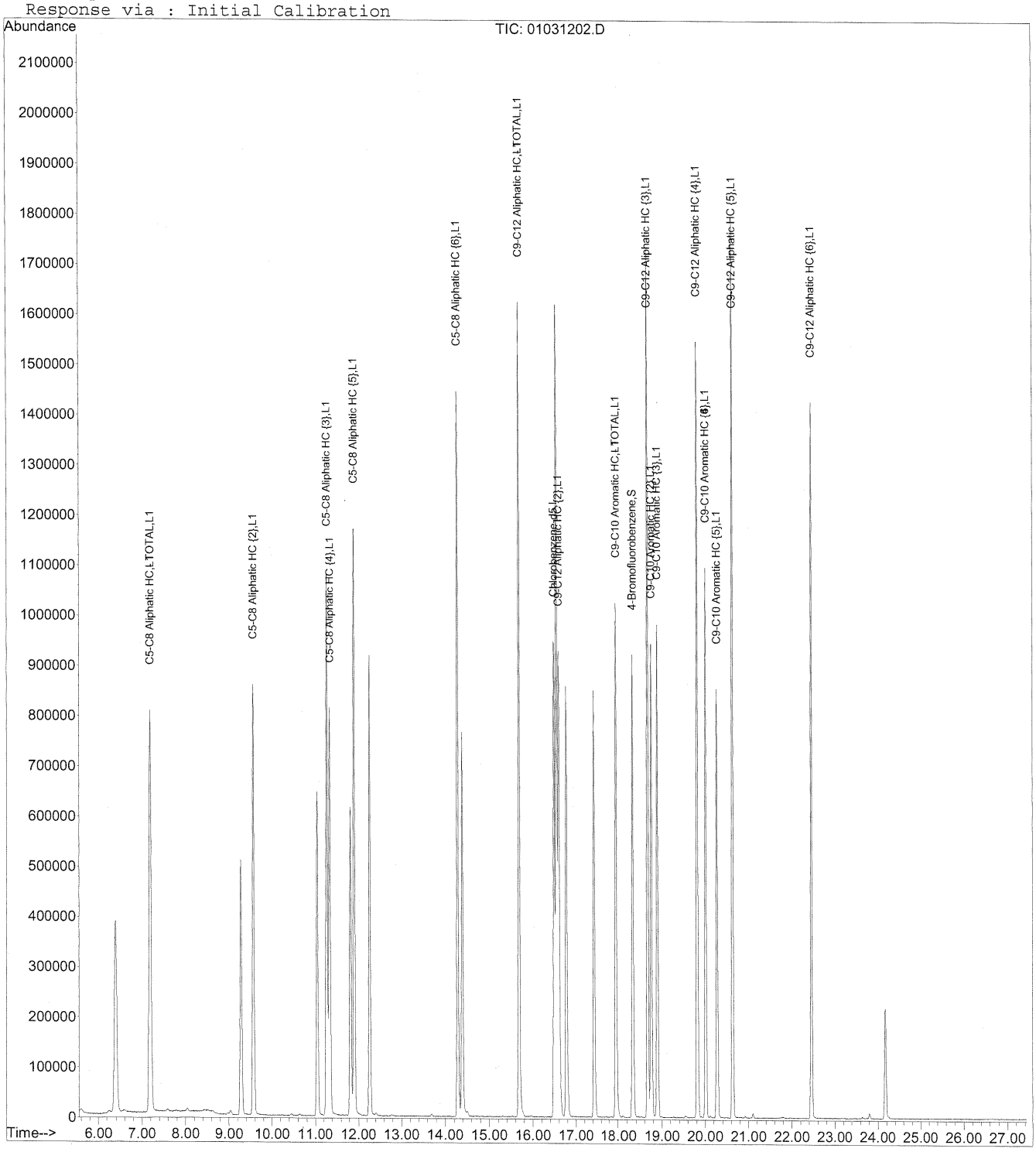
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.49	117	638507	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	446105	86.42	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 96.56%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2766123	29.60	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2112487	33.90	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2696466	38.93	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2022140	32.31	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.90	TIC	2620327	39.22	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	3034011	45.70	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	15251554m	220.54	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3672726	51.81	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.60	TIC	2090389	30.31	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3556445	57.66	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.81	TIC	3424896	57.73	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3579123	67.39	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2792166	72.34	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	19115745m	332.92	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	225594	47.67	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	238713	47.31	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.89	120	357662	49.39	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	82544	55.47	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	271784	49.21	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	199821	56.02	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1376118m	249.81	ug/m3	

(#) = qualifier out of range (m) = manual integration
01031202.D 122111V9.M Wed Jan 04 16:45:30 2012

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010312\01031202.D Vial: 2
Acq On : 3 Jan 2012 10:18 am Operator: RACHEL HILL
Sample : CCV 010312 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 4 9:44 2012 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



01031202.D 122111V9.M Wed Jan 04 16:45:30 2012 Page 2

RTI Laboratories

Run ID: VOA9_120104A **Run No.:** 45282

Analytical Run Date: 1/4/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 010412 VOA9	BFB_TUNE	TUNE	R45282	1/4/2012 10:54:00 AM	Robert Lynch		
CCV 010412 VOA9	MA_APH	CCV	R45282	1/4/2012 11:38:00 AM	Robert Lynch		
RLVS 010412 VOA9	MA_APH	RLVS	R45282	1/4/2012 1:21:00 PM	Robert Lynch		
Blank 010412 VOA	MA_APH	MBLK	R45282	1/4/2012 2:14:00 PM	Charles O`Bryan		
1112696-002A	MA_APH	SAMP	R45282	1/4/2012 2:59:00 PM	Robert Lynch		
1112696-025A	MA_APH	SAMP	R45282	1/4/2012 3:43:00 PM	Robert Lynch		
1112696-032A	MA_APH	SAMP	R45282	1/4/2012 4:27:00 PM	Robert Lynch		
1112696-033A	MA_APH	SAMP	R45282	1/4/2012 5:21:00 PM	Robert Lynch		
1112696-034A	MA_APH	SAMP	R45282	1/4/2012 6:06:00 PM	Robert Lynch		
1112696-035A	MA_APH	SAMP	R45282	1/4/2012 6:49:00 PM	Robert Lynch		
1112696-036A	MA_APH	SAMP	R45282	1/4/2012 7:33:00 PM	Robert Lynch		
1112696-037A	MA_APH	SAMP	R45282	1/4/2012 8:17:00 PM	Robert Lynch		
1112696-008A	MA_APH	SAMP	R45282	1/4/2012 9:00:00 PM	Robert Lynch		
1112848-003A	MA_APH	SAMP	R45282	1/4/2012 11:09:00 PM	Robert Lynch		Over-diluted sample. Willl re-run at a lower dilution.
1112848-003Adup	MA_APH	DUP	R45282	1/4/2012 11:51:00 PM	Charles O`Bryan		
1112848-006A	MA_APH	SAMP	R45282	1/5/2012 1:17:00 AM	Robert Lynch		
RLVS2 010412 VOA	MA_APH	RLVS	R45282	1/5/2012 4:09:00 AM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45282

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
890827	BFB 010412 VOA9	BFB_TUNE	TUNE	.\1\DATA\010412	1/4/2012 10:54:0	1	R45282		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		7.3	7.3		100	0	0	0	0	0	7%	4	9	0%	
176	M		95.9	95.9		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.4	26.4		100	0	0	0	0	0	26%	8	40	0%	
75	M		51.7	51.7		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		6.9	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
890828	CCV 010412 VOA9	MA_APH	CCV	.\1\DATA\010412	1/4/2012 11:38:0	1	R45282		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	241.83	241.83		234	0	0	0	0	0	103%	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	260.38	260.38		266	0	0	0	0	0	98%	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	382.03	382.03		378	0	0	0	0	0	101%	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	88.13	88.13		89.5	0	0	0	0	0	98%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010412\01041202.D Vial: 2
Acq On : 4 Jan 2012 11:38 am Operator: RACHEL HILL
Sample : CCV 010412 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 5 10:41 2012 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

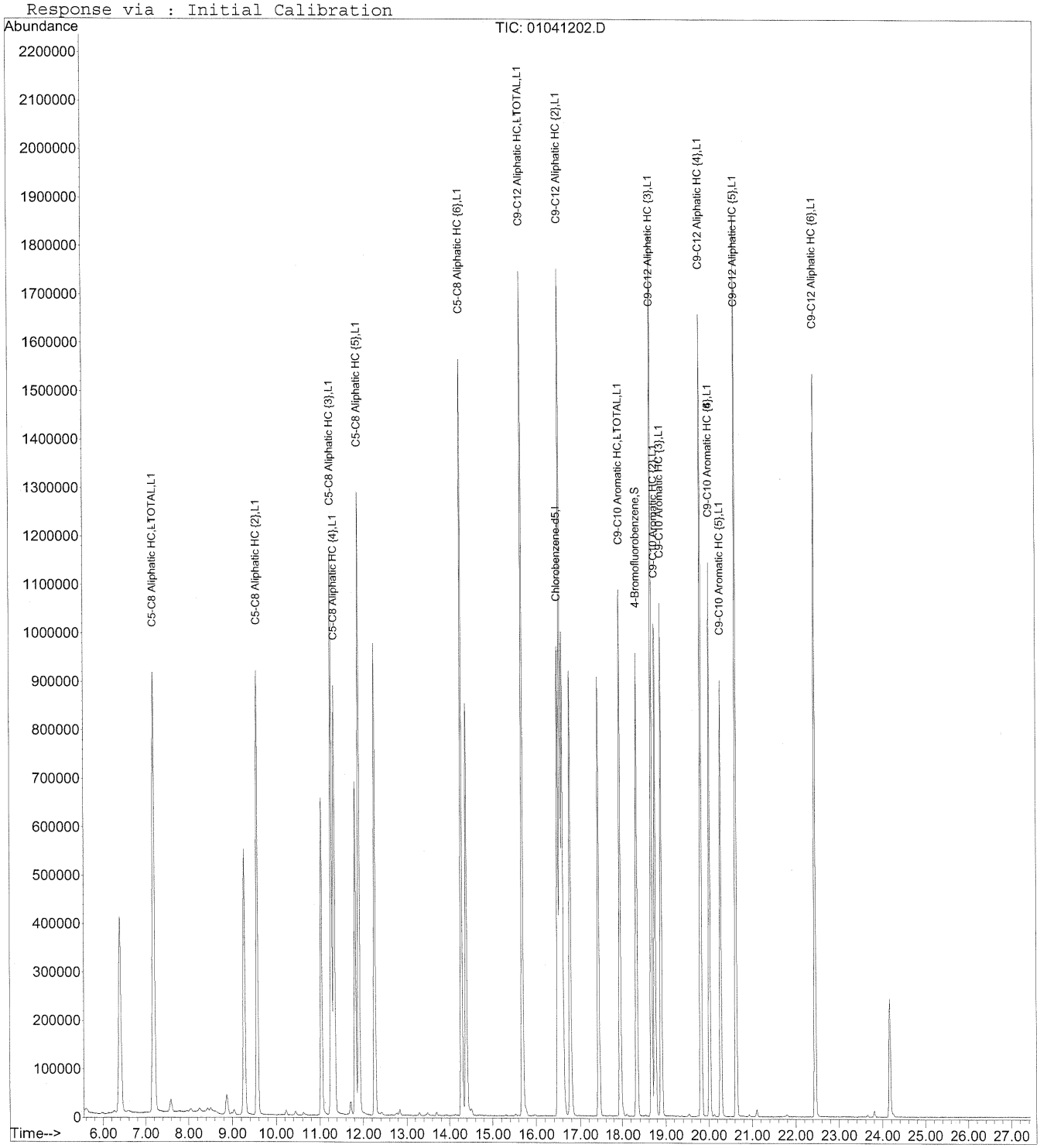
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	657377	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	468372	88.13	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 98.47%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	3130928	33.50	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2263454	36.32	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2964634	42.80	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2234626	35.70	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.90	TIC	2853066	42.71	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	3277192	49.36	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	16723900m	241.83	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3952850	55.76	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	3843702	55.74	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3752501	60.84	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3585996	60.44	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3752571	70.65	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	3047810	78.97	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	21935430m	382.03	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	236836	50.05	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	252388	50.02	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	367912	50.80	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	84736	56.94	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	284522	51.51	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	207920	58.29	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1434314m	260.38	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010412\01041202.D Vial: 2
Acq On : 4 Jan 2012 11:38 am Operator: RACHEL HILL
Sample : CCV 010412 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 5 10:41 2012 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_120105A **Run No.:** 45314

Analytical Run Date: 1/5/2012 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 45089 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 010512 VOA9	BFB_TUNE	TUNE	R45314	1/5/2012 10:00:00 AM	Charles O`Bryan		
CCV 010512 VOA9	MA_APH	CCV	R45314	1/5/2012 10:43:00 AM	Charles O`Bryan		
RLVS 010512 VOA9	MA_APH	RLVS	R45314	1/5/2012 11:26:00 AM	Charles O`Bryan		
Blank 010512 VOA	MA_APH	MBLK	R45314	1/5/2012 12:24:00 PM	Charles O`Bryan		
1112696-038A	MA_APH	SAMP	R45314	1/5/2012 1:07:00 PM	Charles O`Bryan		
1112848-009A	MA_APH	SAMP	R45314	1/5/2012 1:50:00 PM	Charles O`Bryan		Over-diluted sample. Will re-run at a lower dilution. Reported here to show that sample and duplicate were analyzed.
1112848-009Adup	MA_APH	DUP	R45314	1/5/2012 2:33:00 PM	Charles O`Bryan		
1112848-005A	MA_APH	SAMP	R45314	1/5/2012 9:43:00 PM	Charles O`Bryan		
1112848-007A	MA_APH	SAMP	R45314	1/5/2012 10:26:00 PM	Charles O`Bryan		
1112848-011A	MA_APH	SAMP	R45314	1/6/2012 12:35:00 AM	Charles O`Bryan		
RLVS2 010512 VOA	MA_APH	RLVS	R45314	1/6/2012 9:00:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45314

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891462	BFB 010512 VOA9	BFB_TUNE	TUNE	.\1\DATA\010512	1/5/2012 10:00:0	1	R45314		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		50.6	50.6		100	0	0	0	0	0	51%	50	120	0%	
175	M		8.2	8.2		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.4	96.4		100	0	0	0	0	0	96%	93	101	0%	
177	M		7.3	7.3		100	0	0	0	0	0	7%	5	9	0%	
50	M		28.5	28.5		100	0	0	0	0	0	29%	8	40	0%	
75	M		51.2	51.2		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		8	8		100	0	0	0	0	0	8%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891463	CCV 010512 VOA9	MA_APH	CCV	.\1\DATA\010512	1/5/2012 10:43:0	1	R45314		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	212.23	212.23		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	230.61	230.61		266	0	0	0	0	0	87%	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	323.52	323.52		378	0	0	0	0	0	86%	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	86.2	86.2		89.5	0	0	0	0	0	96%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\010512\01051202.D Vial: 2
Acq On : 5 Jan 2012 10:43 am Operator: RACHEL HILL
Sample : CCV 010512 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 6 12:34 2012 Quant Results File: 122111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration
DataAcq Meth : 122111V9

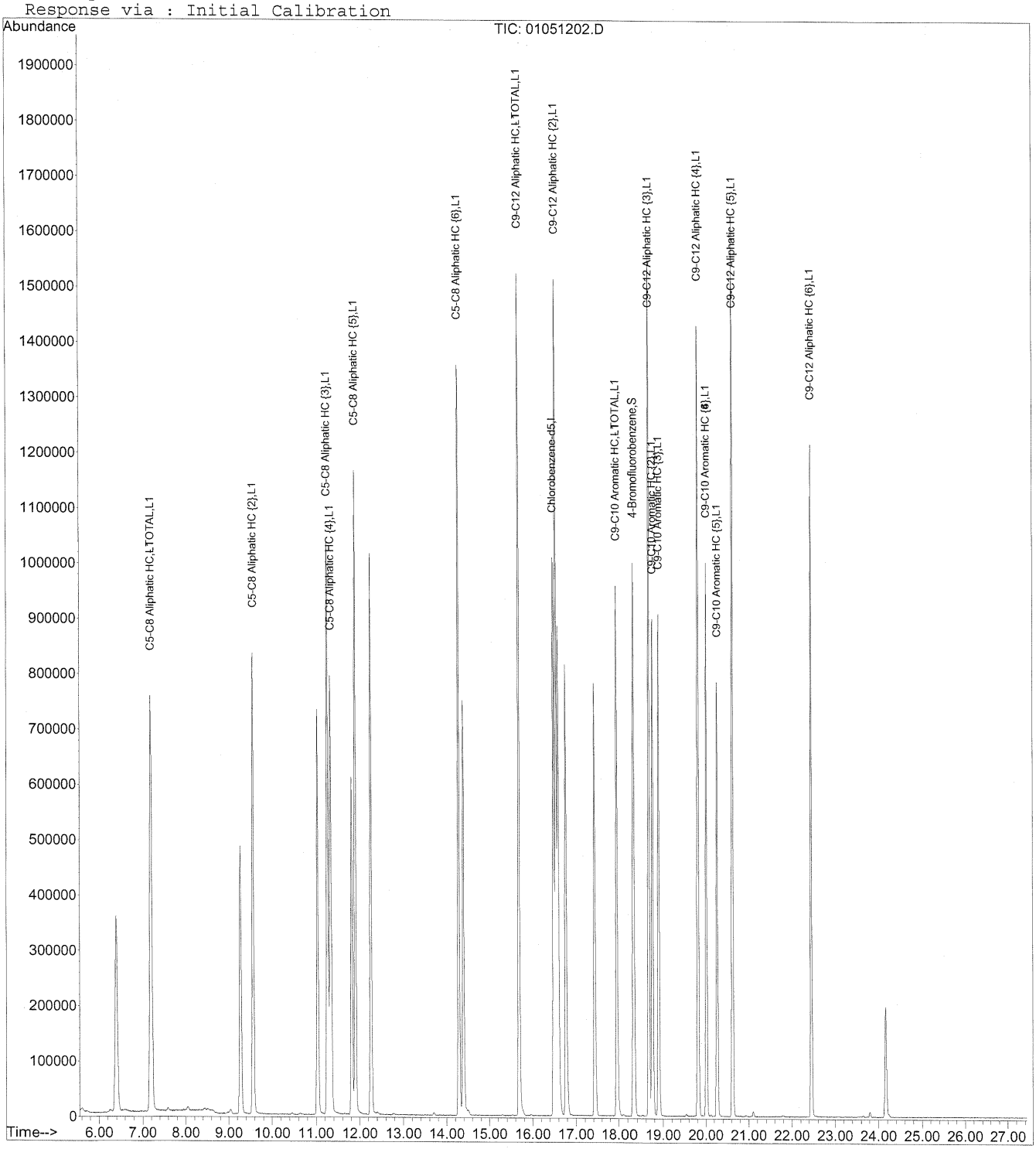
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.49	117	692295	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	482440	86.20	ug/m3	-0.02
Spiked Amount 89.500	Range 70 - 130		Recovery = 96.31%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.19	TIC	2598034	27.80	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2051940	32.93	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	2579462	37.24	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2006472	32.06	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2560420	38.33	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.28	TIC	2880230	43.38	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.19	TIC	14676558m	212.23	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	3430049	48.39	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.55	TIC	3201981	46.43	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	3245639	52.62	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3114088	52.49	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.63	TIC	3205271	60.35	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.45	TIC	2379069	61.64	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	18576097m	323.52	ug/m3	
15) C9-C10 Aromatic HC	17.96	120	208844	44.13	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.75	120	224913	44.57	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.90	120	326886	45.14	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.01	120	75473	50.71	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.27	120	251197	45.48	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.01	134	183002	51.30	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.96	TIC	1270315m	230.61	ug/m3	

(#) = qualifier out of range (m) = manual integration
01051202.D 122111V9.M Mon Jan 09 16:40:31 2012 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\010512\01051202.D Vial: 2
Acq On : 5 Jan 2012 10:43 am Operator: RACHEL HILL
Sample : CCV 010512 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Jan 6 12:34 2012 Quant Results File: 122111V9.RES

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
Response via : Initial Calibration

Calibration Files
1 =12211104.D 2 =12211105.D 3 =12211106.D
4 =12211107.D 5 =12211108.D 6 =12211109.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.052	0.954	0.944	0.892	0.925	0.893	0.934	E5	6.26
2)	L1	C5-C8 Aliphatic HC	6.778	6.189	6.231	5.699	6.146	6.276	6.231	E4	5.07
3)	L1	C5-C8 Aliphatic HC	7.480	6.910	6.886	6.356	6.869	7.059	6.927	E4	4.77
4)	L1	C5-C8 Aliphatic HC	6.802	6.218	6.278	5.691	6.171	6.232	6.259	E4	5.28
5)	L1	C5-C8 Aliphatic HC	7.202	6.653	6.612	6.161	6.744	6.760	6.680	E4	4.57
6)	L1	C5-C8 Aliphatic HC	7.030	6.541	6.592	6.200	6.729	6.832	6.639	E4	3.95
7)	L1	C5-C8 Aliphatic HC	7.503	6.897	6.895	6.413	6.901	6.939	6.915	E4	4.58
8)	L1	C9-C12 Aliphatic HC	7.545	7.018	7.041	6.684	7.225	7.228	7.088	E4	3.91
9)	L1	C9-C12 Aliphatic HC	7.469	6.964	6.636	6.505	6.937	6.943	6.896	E4	4.44
10)	L1	C9-C12 Aliphatic HC	6.728	6.045	6.229	5.811	6.215	6.308	6.168	E4	5.08
11)	L1	C9-C12 Aliphatic HC	6.388	5.837	5.918	5.525	5.932	6.136	5.933	E4	4.58
12)	L1	C9-C12 Aliphatic HC	5.635	5.208	5.295	5.019	5.374	5.513	5.311	E4	4.04
13)	L1	C9-C12 Aliphatic HC	4.086	3.678	3.732	3.642	3.912	4.093	3.860	E4	4.80
14)	L1	C9-C12 Aliphatic HC	6.160	5.651	5.678	5.405	5.796	5.907	5.742	E4	4.22
15)	L1	C9-C10 Aromatic HC	4.986	4.566	4.674	4.320	4.687	4.943	4.732	E3	5.17
16)	L1	C9-C10 Aromatic HC	5.347	4.865	4.966	4.561	5.003	5.285	5.046	E3	5.64
17)	L1	C9-C10 Aromatic HC	7.798	7.010	7.097	6.618	7.145	7.528	7.242	E3	5.43
18)	L1	C9-C10 Aromatic HC	1.557	1.393	1.462	1.371	1.490	1.587	1.488	E3	5.67
19)	L1	C9-C10 Aromatic HC	5.899	5.251	5.468	4.998	5.452	5.778	5.523	E3	5.96
20)	L1	C9-C10 Aromatic HC	3.743	3.385	3.519	3.249	3.538	3.782	3.567	E3	5.72
21)	L1	C9-C10 Aromatic HC	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
22)		C5-C8 Aliphatic	7.503	6.897	6.895	6.413	6.901	6.939	6.915	E4	4.58
23)	L1	non C5-C8	7.123	6.562	6.573	6.496	6.673	6.636	6.659	E4	3.19
24)	L1	non C5-C8 {2}	4.824	4.269	4.233	3.723	4.096	4.137	4.210	E4	7.74
25)	L1	non C5-C8 {3}	2.674	2.925	2.850	2.770	2.891	3.011	2.861	E4	3.85
26)	L1	non C5-C8 {4}	5.695	5.188	5.097	4.389	4.948	4.980	5.046	E4	7.63
27)	L1	non C5-C8 {5}	3.712	4.466	4.189	3.941	4.282	4.529	4.193	E4	6.83
28)	L1	non C5-C8 {6}	5.488	5.131	5.147	4.552	5.136	5.206	5.134	E4	5.57
29)	L1	non C5-C8 - TOTAL	4.020	4.417	4.398	4.119	4.574	4.777	4.454	E4	7.11
30)		C9-C12 Aliphatic	6.160	5.651	5.678	5.405	5.796	5.907	5.742	E4	4.22
31)	L1	non C9-C12	3.803	4.247	4.309	3.944	4.196	4.558	4.206	E4	6.12
32)	L1	non C9-C12 {2}	5.496	4.847	4.988	4.544	4.498	4.577	4.821	E4	7.21
33)	L1	non C9-C12 {3}	5.447	4.893	4.967	4.529	4.936	5.149	5.011	E4	5.67
34)	L1	non C9-C12 {4}	5.234	4.719	4.783	4.390	4.812	4.984	4.843	E4	5.45
35)	L1	non C9-C12 {5}	2.518	2.864	2.796	2.696	2.867	3.061	2.828	E4	6.46
36)	L1	non C9-C12 - TOTAL	3.354	3.436	3.462	3.200	3.393	3.536	3.420	E4	3.55
37)	L1	C9-C10 Aromatic	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
38)	L1	C9-C10 Aromatic {2}	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
39)	L1	C9-C10 Aromatic - T	5.865	5.292	5.422	5.004	5.435	5.777	5.509	E3	5.64
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.100	0.100	0.101	0.101	0.100	0.101	0.101		1.04

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\122111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Dec 22 09:43:52 2011
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

122111V9.M Thu Dec 22 18:37:38 2011

RTI Laboratories

Run ID: GC-PT-FID_120105A **Run No.:** 45328

Analytical Run Date: 1/5/2012 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45328	1/5/2012 9:16:00 AM	Charles O'Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45328	1/5/2012 9:38:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45328	1/5/2012 9:54:00 AM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45328	1/5/2012 10:09:00 AM	Robert Lynch		
1112696-001b	ASTM-D2504	SAMP	R45328	1/5/2012 10:24:00 AM	Robert Lynch		
1112696-002b	ASTM-D2504	SAMP	R45328	1/5/2012 10:40:00 AM	Robert Lynch		
1112696-003b	ASTM-D2504	SAMP	R45328	1/5/2012 10:55:00 AM	Robert Lynch		
1112696-004b	ASTM-D2504	SAMP	R45328	1/5/2012 11:10:00 AM	Robert Lynch		
1112696-005b	ASTM-D2504	SAMP	R45328	1/5/2012 11:26:00 AM	Robert Lynch		
1112696-006b	ASTM-D2504	SAMP	R45328	1/5/2012 11:41:00 AM	Robert Lynch		
1112696-007b	ASTM-D2504	SAMP	R45328	1/5/2012 11:56:00 AM	Robert Lynch		
1112696-008b	ASTM-D2504	SAMP	R45328	1/5/2012 12:11:00 PM	Robert Lynch		
1112696-009b	ASTM-D2504	SAMP	R45328	1/5/2012 12:26:00 PM	Robert Lynch		
1112696-010b	ASTM-D2504	SAMP	R45328	1/5/2012 12:41:00 PM	Robert Lynch		
1112696-010bDUP	ASTM-D2504	DUP	R45328	1/5/2012 12:55:00 PM	Charles O'Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45328	1/5/2012 1:11:00 PM	Robert Lynch		
1112696-011b	ASTM-D2504	SAMP	R45328	1/5/2012 1:26:00 PM	Robert Lynch		
1112696-012b	ASTM-D2504	SAMP	R45328	1/5/2012 1:40:00 PM	Robert Lynch		
1112696-013b	ASTM-D2504	SAMP	R45328	1/5/2012 1:55:00 PM	Robert Lynch		
1112696-014b	ASTM-D2504	SAMP	R45328	1/5/2012 2:10:00 PM	Robert Lynch		
1112696-015b	ASTM-D2504	SAMP	R45328	1/5/2012 2:25:00 PM	Robert Lynch		
1112696-016b	ASTM-D2504	SAMP	R45328	1/5/2012 2:42:00 PM	Robert Lynch		
1112696-017b	ASTM-D2504	SAMP	R45328	1/5/2012 2:57:00 PM	Robert Lynch		
1112696-018b	ASTM-D2504	SAMP	R45328	1/5/2012 3:14:00 PM	Robert Lynch		
1112696-019b	ASTM-D2504	SAMP	R45328	1/5/2012 3:29:00 PM	Robert Lynch		
ccv std 1-2 c	ASTM-D2504	CCV	R45328	1/5/2012 3:45:00 PM	Robert Lynch		
crql std 2% c	ASTM-D2504	CRQL	R45328	1/5/2012 4:01:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45328

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892169	mblk	ASTM-D2504	MBLK	\TA\010512\0105	1/5/2012 9:16:00	1	R45328		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
892170	ccv std 1-2 a	ASTM-D2504	CCV	\TA\010512\0105	1/5/2012 9:38:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.583	2.583		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	%	2.685	2.685		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	%	2.078	2.078		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.703	2.703		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.476	2.476		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
892171	lcs	ASTM-D2504	LCS	\TA\010512\0105	1/5/2012 9:54:00	1	R45328		0	892170	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.578	2.578		2.5	0	2.583	0.025	0.1	0	103%	70	130	0%	
Carbon Monoxide	A	%	2.674	2.674		2.5	0	2.685	0.025	0.1	0	107%	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%	
Methane	A	%	2.08	2.08		2	0	2.078	0.025	0.5	0	104%	70	130	0%	
Nitrogen	A	%	2.654	2.654		2.5	0	2.703	0.025	0.1	0	106%	70	130	2%	
Oxygen	A	%	2.46	2.46		2.5	0	2.476	0.025	0.1	0	98%	70	130	1%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892182	1112696-010b (Container-01 of 01)	ASTM-D2504	SAMP	\TA\010512\0105	1/5/2012 12:41:0	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	19.017	19.017		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
892183	1112696-010bDUP	ASTM-D2504	DUP	\TA\010512\0105	1/5/2012 12:55:0	1	R45328		0	892182	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.391	0.391		0	0	0.41	0.025	0.1	0	0%	0	0	5%	
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	%	79.003	79.003		0	0	79.171	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	18.99	18.99		0	0	19.017	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
892184	ccv std 1-2 b	ASTM-D2504	CCV	\TA\010512\0105	1/5/2012 1:11:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.608	2.608		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	%	2.671	2.671		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	%	2.076	2.076		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.638	2.638		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.453	2.453		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892185	1112696-011b (Container-01 of 01)	ASTM-D2504	SAMP	\TA\010512\0105	1/5/2012 1:26:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892192	1112696-018b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010512\0105	1/5/2012 3:14:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	18.83	18.83		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
892193	1112696-019b (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\010512\0105	1/5/2012 3:29:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.263	0.263		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	%	78.561	78.561		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.575	19.575		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
892194	ccv std 1-2 c	ASTM-D2504	CCV	ıTA\010512\0105	1/5/2012 3:45:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.569	2.569		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Carbon Monoxide	A	%	2.667	2.667		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	%	2.073	2.073		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.621	2.621		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.441	2.441		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892195	crql std 2% c	ASTM-D2504	CRQL	ıTA\010512\0105	1/5/2012 4:01:00	1	R45328		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010512\01051202.D Vial: 1
Acq On : 5 Jan 2012 9:38 am Operator:
Sample : ccv std 1-2 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	2.476	1.0	0	0.04
2	Nitrogen	2.500	2.703	-8.1	0	0.02
3	Carbon Monoxide	2.500	2.685	-7.4	0	0.00
4	Methane	2.000	2.078	-3.9	0	0.02
5	Carbon dioxide	2.500	2.583	-3.3	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010512\01051202.D Vial: 1
Acq On : 5 Jan 2012 9:38 am Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Mon Jan 09 13:23:45 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010512\01051202.D Vial: 1
Acq On : 5 Jan 2012 9:38 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 5 10:38 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

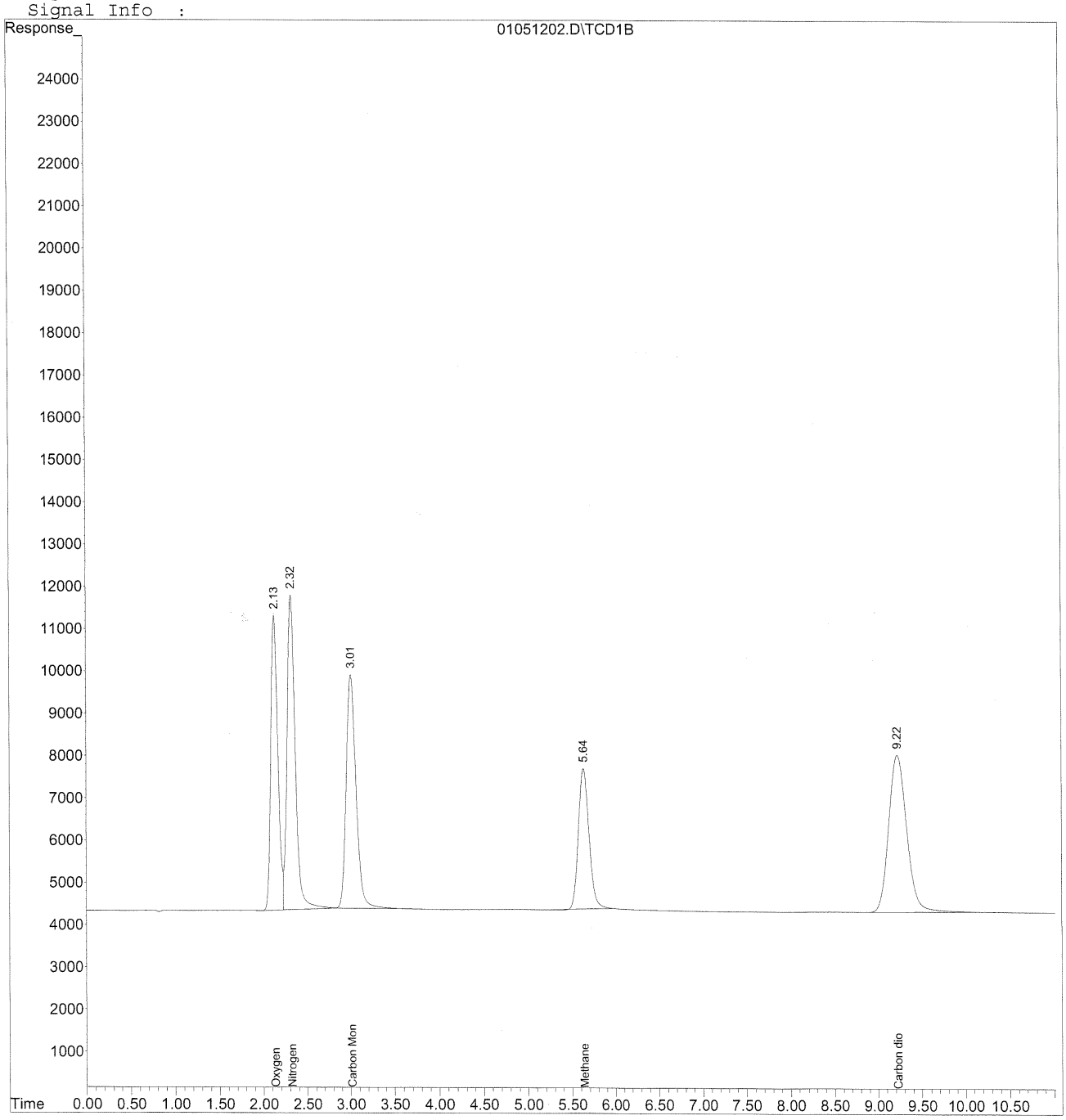
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	383548	2.476 %
2)	Nitrogen	2.32	474352	2.703 %
3)	Carbon Monoxide	3.01	432751	2.685 %
4)	Methane	5.64	280628	2.078 %
5)	Carbon dioxide	9.23	530460	2.583 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010512\01051202.D Vial: 1
Acq On : 5 Jan 2012 9:38 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 5 10:38 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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\010512\01051216.D Vial: 1
Acq On : 5 Jan 2012 1:11 pm Operator:
Sample : ccv std 1-2 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	2.453	1.9	0	0.04
2	Nitrogen	2.500	2.638	-5.5	0	0.02
3	Carbon Monoxide	2.500	2.671	-6.8	0	0.00
4	Methane	2.000	2.076	-3.8	0	0.02
5	Carbon dioxide	2.500	2.608	-4.3	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010512\01051216.D Vial: 1
Acq On : 5 Jan 2012 1:11 pm Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Mon Jan 09 13:23:57 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010512\01051216.D Vial: 1
Acq On : 5 Jan 2012 1:11 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 5 16:15 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

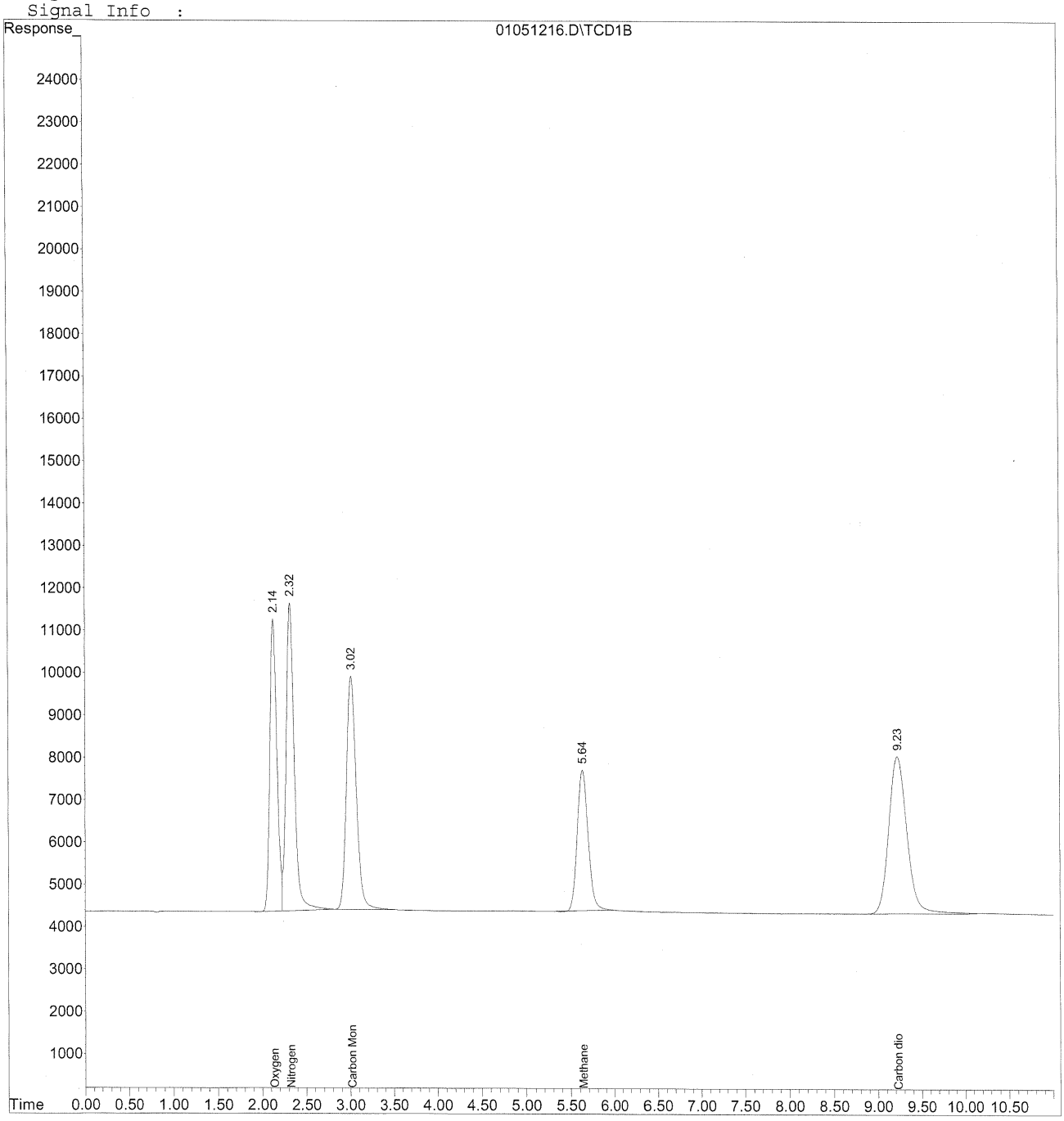
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	380051	2.453 %
2)	Nitrogen	2.32	462937	2.638 %
3)	Carbon Monoxide	3.02	430532	2.671 %
4)	Methane	5.64	280418	2.076 %
5)	Carbon dioxide	9.23	535617	2.608 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010512\01051216.D Vial: 1
Acq On : 5 Jan 2012 1:11 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 5 16:15 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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\010512\01051226.D Vial: 1
Acq On : 5 Jan 2012 3:45 pm Operator:
Sample : ccv std 1-2 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	2.441	2.4	0	0.04
2	Nitrogen	2.500	2.621	-4.8	0	0.02
3	Carbon Monoxide	2.500	2.667	-6.7	0	0.00
4	Methane	2.000	2.073	-3.6	0	0.02
5	Carbon dioxide	2.500	2.569	-2.8	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010512\01051226.D Vial: 1
Acq On : 5 Jan 2012 3:45 pm Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Mon Jan 09 13:24:07 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010512\01051226.D Vial: 1
Acq On : 5 Jan 2012 3:45 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 5 15:56 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

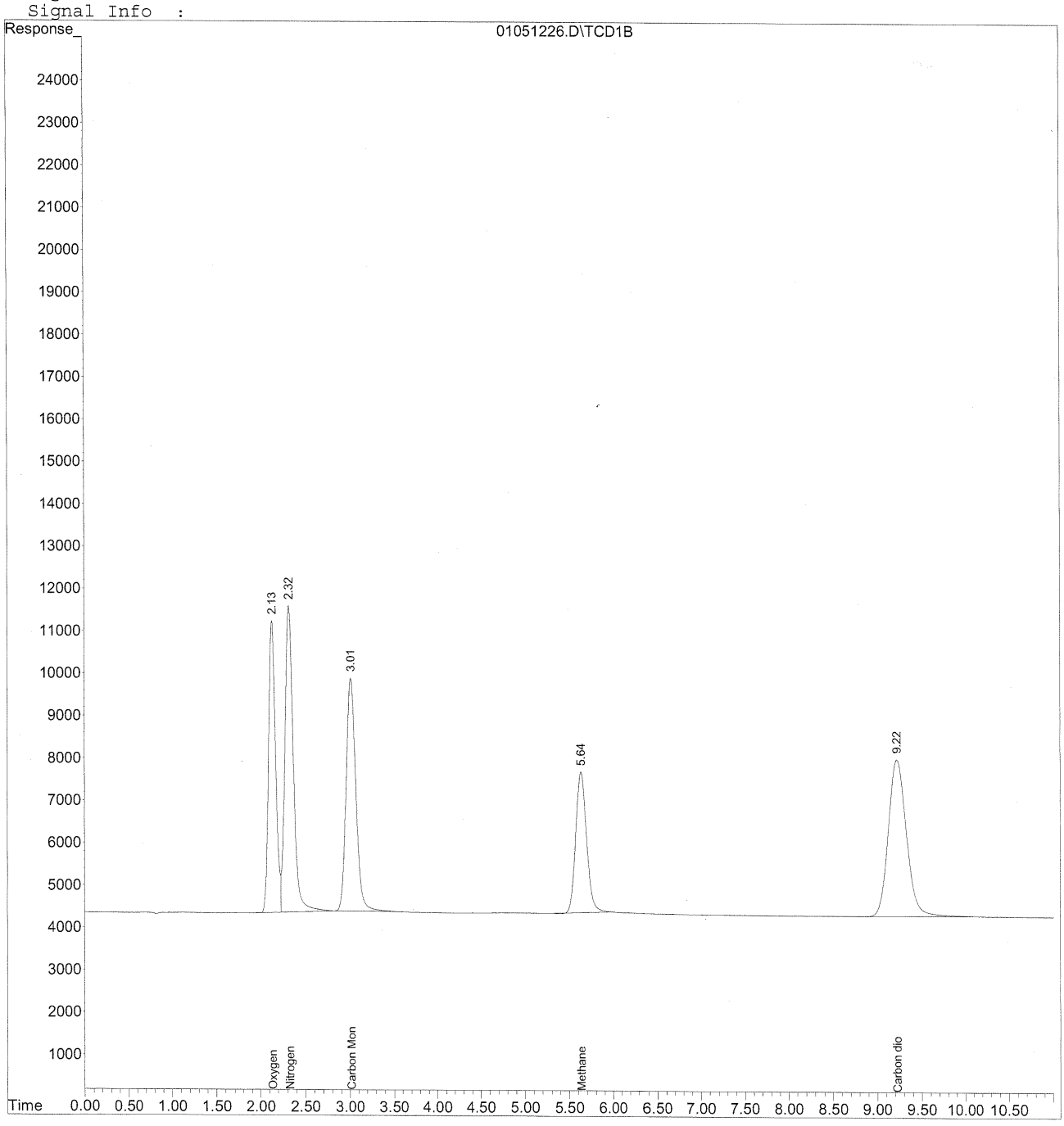
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	378178	2.441 %
2)	Nitrogen	2.32	460090	2.621 %
3)	Carbon Monoxide	3.02	429841	2.667 %
4)	Methane	5.64	279950	2.073 %
5)	Carbon dioxide	9.23	527551	2.569 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010512\01051226.D Vial: 1
Acq On : 5 Jan 2012 3:45 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 5 15:56 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-PT-FID_120106A **Run No.:** 45329

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

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45329	1/6/2012 11:15:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45329	1/6/2012 11:35:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45329	1/6/2012 12:06:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45329	1/6/2012 12:21:00 PM	Robert Lynch		
1112696-020b	ASTM-D2504	SAMP	R45329	1/6/2012 12:44:00 PM	Robert Lynch		
1112696-021A	ASTM-D2504	SAMP	R45329	1/6/2012 12:59:00 PM	Robert Lynch		
1112696-022b	ASTM-D2504	SAMP	R45329	1/6/2012 1:14:00 PM	Robert Lynch		
1112696-023b	ASTM-D2504	SAMP	R45329	1/6/2012 1:29:00 PM	Robert Lynch		
1112696-024b	ASTM-D2504	SAMP	R45329	1/6/2012 1:44:00 PM	Robert Lynch		
1112696-025b	ASTM-D2504	SAMP	R45329	1/6/2012 1:59:00 PM	Robert Lynch		
1112696-026b	ASTM-D2504	SAMP	R45329	1/6/2012 2:14:00 PM	Robert Lynch		
1112696-027b	ASTM-D2504	SAMP	R45329	1/6/2012 2:29:00 PM	Robert Lynch		
1112696-028b	ASTM-D2504	SAMP	R45329	1/6/2012 2:44:00 PM	Robert Lynch		
1112696-029b	ASTM-D2504	SAMP	R45329	1/6/2012 2:59:00 PM	Robert Lynch		
1112696-029bDUP	ASTM-D2504	DUP	R45329	1/6/2012 3:16:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45329	1/6/2012 3:52:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R45329	1/6/2012 4:08:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45329

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891828	mblk	ASTM-D2504	MBLK	\TA\010612\0106	1/6/2012 11:15:0	1	R45329		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
891830	ccv std 1-2 a	ASTM-D2504	CCV	\TA\010612\0106	1/6/2012 11:35:0	1	R45329		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.538	2.538		2.5	0	0	0.025	0.1	0	102%	85	115	0%	
Carbon Monoxide	A	%	2.645	2.645		2.5	0	0	0.025	0.1	0	106%	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	%	2.059	2.059		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	%	2.71	2.71		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.449	2.449		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891831	lcs	ASTM-D2504	LCS	\TA\010612\0106	1/6/2012 12:06:0	1	R45329		0	891830	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.566	2.566		2.5	0	2.538	0.025	0.1	0	103%	70	130	1%	
Carbon Monoxide	A	%	2.658	2.658		2.5	0	2.645	0.025	0.1	0	106%	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%	
Methane	A	%	2.063	2.063		2	0	2.059	0.025	0.5	0	103%	70	130	0%	
Nitrogen	A	%	2.686	2.686		2.5	0	2.71	0.025	0.1	0	107%	70	130	1%	
Oxygen	A	%	2.448	2.448		2.5	0	2.449	0.025	0.1	0	98%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891844	1112696-029b (Container-01 of 01)	ASTM-D2504	SAMP	\TA\010612\0106	1/6/2012 2:59:00	1	R45329		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.448	20.448		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
891846	1112696-029bDUP	ASTM-D2504	DUP	\TA\010612\0106	1/6/2012 3:16:00	1	R45329		0	891844	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.11	0.11		0	0	0.12	0.025	0.1	0	0%	0	0	9%	
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	%	77.554	77.554		0	0	77.096	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	20.562	20.562		0	0	20.448	0.025	0.1	0	0%	0	0	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891847	ccv std 1-2 b	ASTM-D2504	CCV	\TA\010612\0106	1/6/2012 3:52:00	1	R45329		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.605	2.605		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Carbon Monoxide	A	%	2.667	2.667		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	%	2.072	2.072		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.635	2.635		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.445	2.445		2.5	0	0	0.025	0.1	0	98%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
891848	crql std 2% b	ASTM-D2504	CRQL	\TA\010612\0106	1/6/2012 4:08:00	1	R45329		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.3	0.3		0.3	0	0	0.025	0.1	0	100%	80	120	0%	
Carbon Monoxide	A	%	0.146	0.146		0.14	0	0	0.025	0.1	0	104%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010612\01061202.D Vial: 1
Acq On : 6 Jan 2012 11:35 am Operator:
Sample : ccv std 1-2 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	2.449	2.0	0	0.04
2	Nitrogen	2.500	2.710	-8.4	0	0.02
3	Carbon Monoxide	2.500	2.645	-5.8	0	0.00
4	Methane	2.000	2.059	-3.0	0	0.02
5	Carbon dioxide	2.500	2.538	-1.5	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010612\01061202.D Vial: 1
Acq On : 6 Jan 2012 11:35 am Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Mon Jan 09 13:27:41 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010612\01061202.D Vial: 1
Acq On : 6 Jan 2012 11:35 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 6 13:36 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

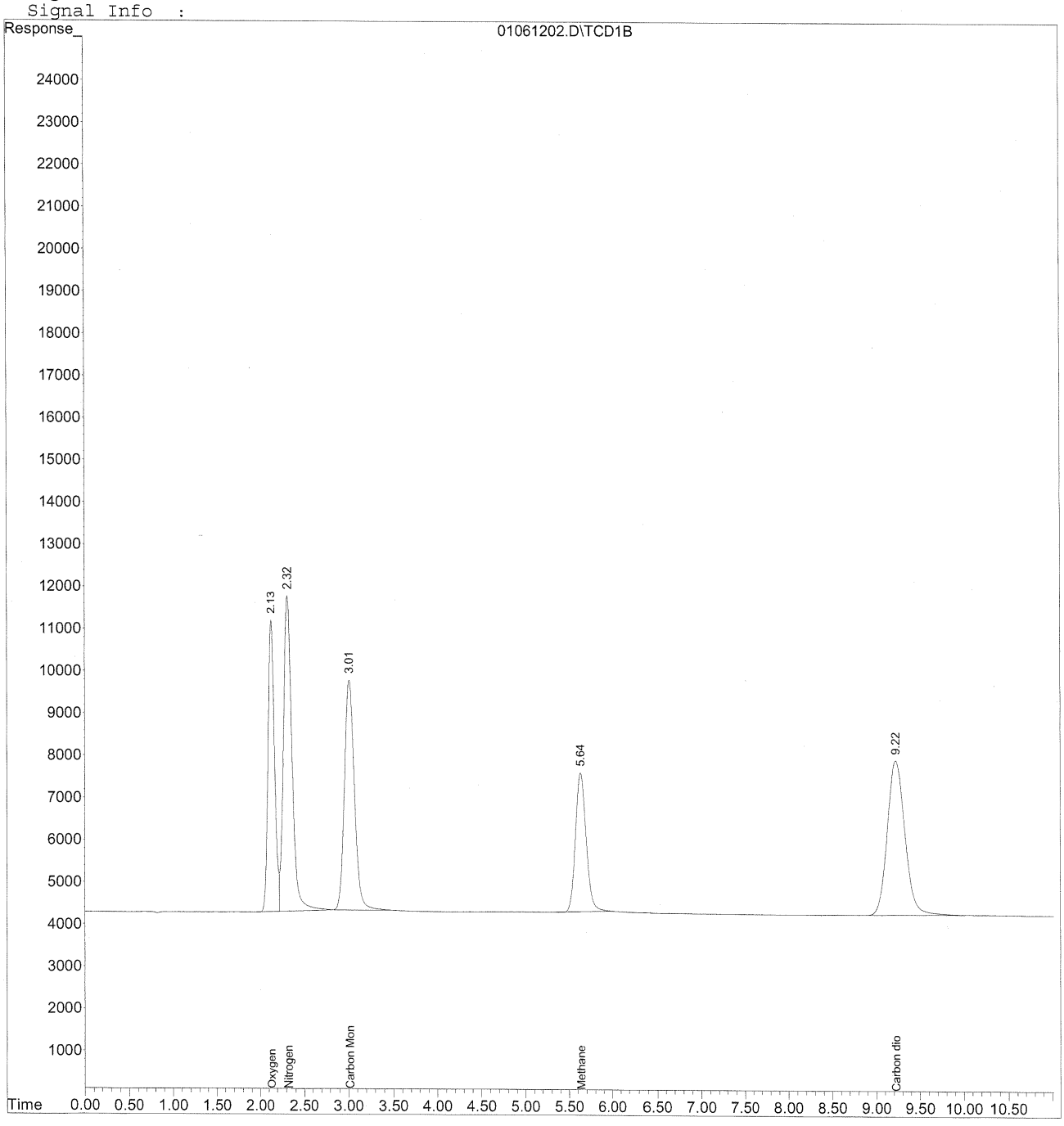
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	379429	2.449 %
2)	Nitrogen	2.32	475558	2.710 %
3)	Carbon Monoxide	3.02	426434	2.645 %
4)	Methane	5.64	278135	2.059 %
5)	Carbon dioxide	9.23	521328	2.538 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010612\01061202.D Vial: 1
Acq On : 6 Jan 2012 11:35 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 6 13:36 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 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\010612\01061216.D Vial: 1
Acq On : 6 Jan 2012 3:52 pm Operator:
Sample : ccv std 1-2 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	2.445	2.2	0	0.05
2	Nitrogen	2.500	2.635	-5.4	0	0.03
3	Carbon Monoxide	2.500	2.667	-6.7	0	0.00
4	Methane	2.000	2.072	-3.6	0	0.02
5	Carbon dioxide	2.500	2.605	-4.2	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010612\01061216.D Vial: 1
Acq On : 6 Jan 2012 3:52 pm Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Mon Jan 09 13:27:49 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010612\01061216.D Vial: 1
Acq On : 6 Jan 2012 3:52 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 9 11:33 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

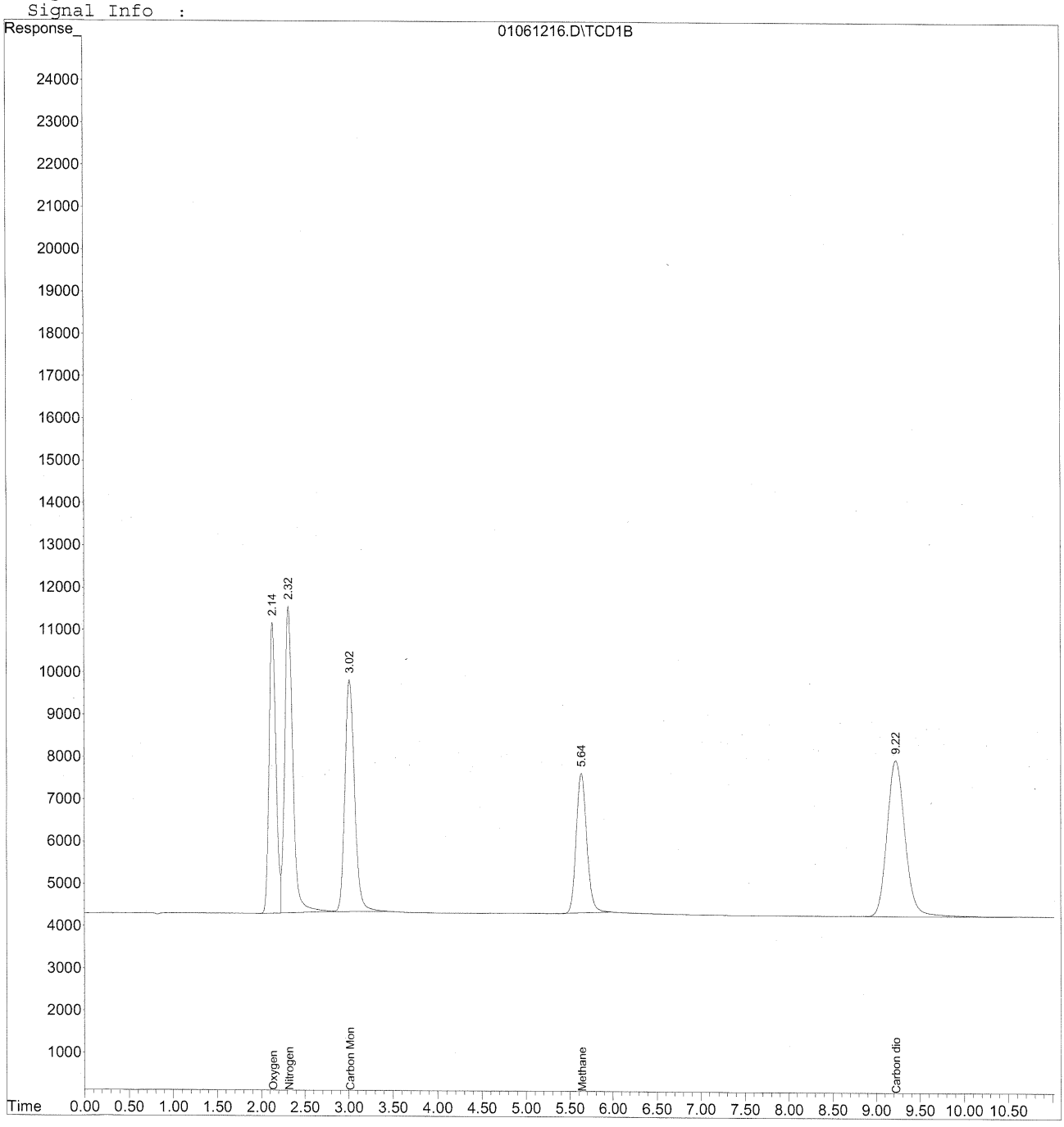
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	378775	2.445 %
2)	Nitrogen	2.33	462505	2.635 %
3)	Carbon Monoxide	3.02	429916	2.667 %
4)	Methane	5.64	279846	2.072 %
5)	Carbon dioxide	9.22	535006	2.605 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010612\01061216.D Vial: 1
Acq On : 6 Jan 2012 3:52 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 9 11:33 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Wed Jan 04 17:34:10 2012
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_120109A **Run No.:** 45354

Analytical Run Date: 1/9/2012 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R45354	1/9/2012 11:23:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R45354	1/9/2012 1:01:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R45354	1/9/2012 1:18:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R45354	1/9/2012 2:17:00 PM	Robert Lynch		
1112696-030b	ASTM-D2504	SAMP	R45354	1/9/2012 2:37:00 PM	Robert Lynch		
1112696-031b	ASTM-D2504	SAMP	R45354	1/9/2012 3:03:00 PM	Robert Lynch		
1112696-032b	ASTM-D2504	SAMP	R45354	1/9/2012 3:20:00 PM	Robert Lynch		
1112696-033b	ASTM-D2504	SAMP	R45354	1/9/2012 3:40:00 PM	Robert Lynch		
1112696-034b	ASTM-D2504	SAMP	R45354	1/9/2012 3:59:00 PM	Robert Lynch		
1112696-035b	ASTM-D2504	SAMP	R45354	1/9/2012 4:16:00 PM	Robert Lynch		
1112696-036b	ASTM-D2504	SAMP	R45354	1/9/2012 4:38:00 PM	Robert Lynch		
1112696-037b	ASTM-D2504	SAMP	R45354	1/9/2012 4:55:00 PM	Robert Lynch		
1112696-038b	ASTM-D2504	SAMP	R45354	1/9/2012 5:11:00 PM	Robert Lynch		
1112696-038bdup	ASTM-D2504	DUP	R45354	1/9/2012 5:52:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R45354	1/9/2012 6:13:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R45354	1/9/2012 6:47:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

24-Jan-12

RunNo 45354

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892223	mblk	ASTM-D2504	MBLK	\TA\010912\0109	1/9/2012 11:23:0	1	R45354		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
892224	ccv std 1-2 a	ASTM-D2504	CCV	\TA\010912\0109	1/9/2012 1:01:00	1	R45354		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.658	2.658		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.755	2.755		2.5	0	0	0.025	0.1	0	110%	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	%	2.104	2.104		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.8	2.8		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	%	2.518	2.518		2.5	0	0	0.025	0.1	0	101%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892225	lcs	ASTM-D2504	LCS	\TA\010912\0109	1/9/2012 1:18:00	1	R45354		0	892224	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.616	2.616		2.5	0	2.658	0.025	0.1	0	105%	70	130	2%	
Carbon Monoxide	A	%	2.697	2.697		2.5	0	2.755	0.025	0.1	0	108%	70	130	2%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.087	2.087		2	0	2.104	0.025	0.5	0	104%	70	130	1%	
Nitrogen	A	%	2.722	2.722		2.5	0	2.8	0.025	0.1	0	109%	70	130	3%	
Oxygen	A	%	2.475	2.475		2.5	0	2.518	0.025	0.1	0	99%	70	130	2%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
892237	ccv std 1-2 b	ASTM-D2504	CCV	...TA\010912\0109	1/9/2012 6:13:00	1	R45354		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.624	2.624		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Carbon Monoxide	A	%	2.72	2.72		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	%	2.09	2.09		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.686	2.686		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.481	2.481		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
892238	crql std 2% b	ASTM-D2504	CRQL	...TA\010912\0109	1/9/2012 6:47:00	1	R45354		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.298	0.298		0.3	0	0	0.025	0.1	0	99%	80	120	0%	
Carbon Monoxide	A	%	0.145	0.145		0.14	0	0	0.025	0.1	0	104%	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	%	0.093	0.093		0.09	0	0	0.025	0.5	0	103%	80	120	0%	
Nitrogen	A	%	1.569	1.569		1.39	0	0	0.025	0.1	0	113%	80	120	0%	
Oxygen	A	%	0.087	0.087		0.08	0	0	0.025	0.1	0	109%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\010912\01091202.D Vial: 1
Acq On : 9 Jan 2012 1:01 pm Operator:
Sample : ccv std 1-2 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	2.518	-0.7	0	0.05
2	Nitrogen	2.500	2.800	-12.0	0	0.03
3	Carbon Monoxide	2.500	2.755	-10.2	0	0.00
4	Methane	2.000	2.104	-5.2	0	0.02
5	Carbon dioxide	2.500	2.658	-6.3	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010912\01091202.D Vial: 1
Acq On : 9 Jan 2012 1:01 pm Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Tue Jan 10 12:38:43 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010912\01091202.D Vial: 1
Acq On : 9 Jan 2012 1:01 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 9 13:16 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 09 13:16:42 2012
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

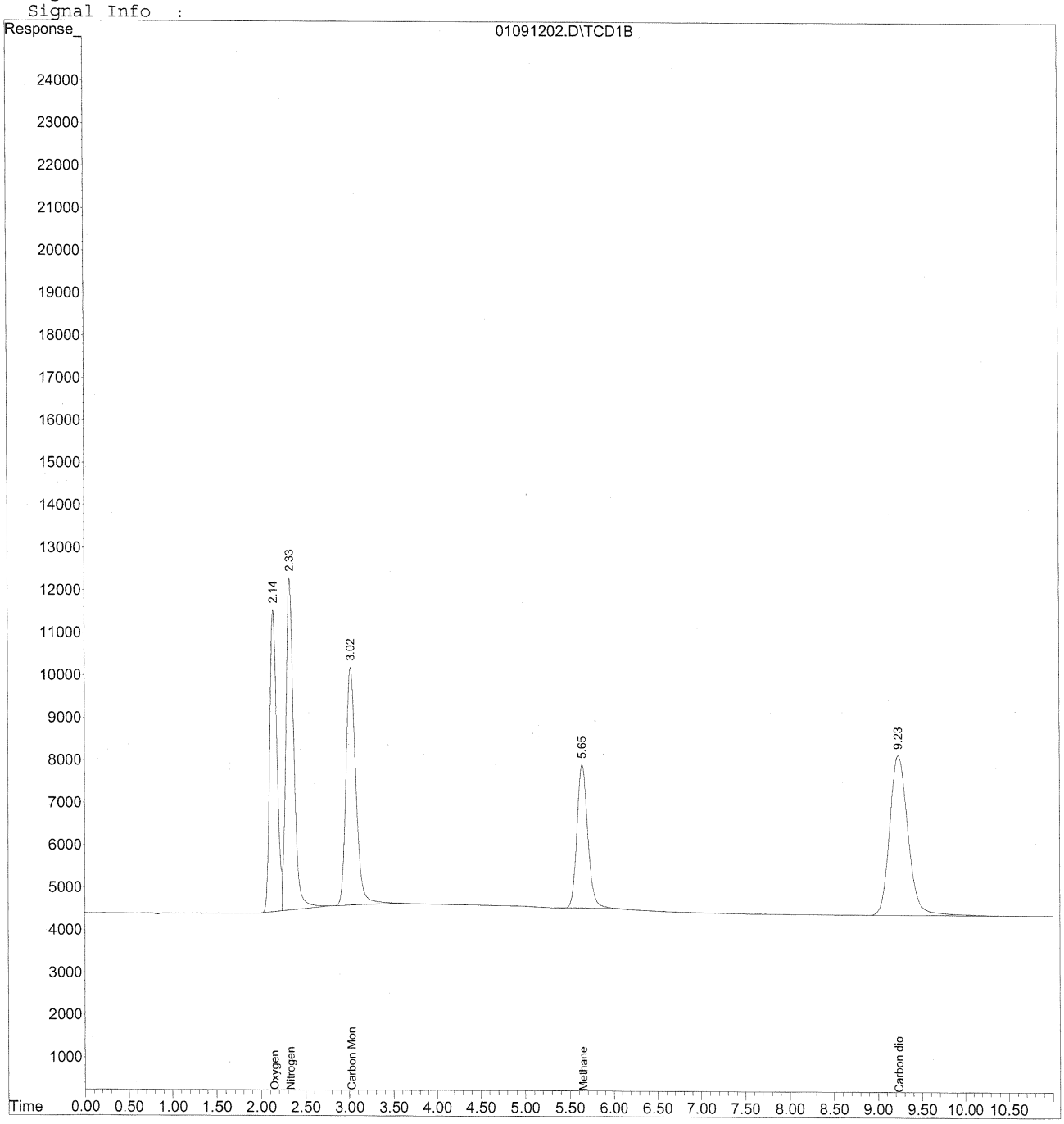
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.15	390008	2.518 %
2)	Nitrogen	2.33	491364	2.800 %
3)	Carbon Monoxide	3.03	444046	2.755 %
4)	Methane	5.65	284121	2.104 %
5)	Carbon dioxide	9.24	545809	2.658 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010912\01091202.D Vial: 1
Acq On : 9 Jan 2012 1:01 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 9 13:16 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 09 13:16:42 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\010912\01091215.D Vial: 1
Acq On : 9 Jan 2012 6:13 pm Operator:
Sample : ccv std 1-2 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	2.481	0.8	0	0.05
2	Nitrogen	2.500	2.686	-7.4	0	0.03
3	Carbon Monoxide	2.500	2.720	-8.8	0	0.00
4	Methane	2.000	2.090	-4.5	0	0.02
5	Carbon dioxide	2.500	2.624	-5.0	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\010912\01091215.D Vial: 1
Acq On : 9 Jan 2012 6:13 pm Operator:
Sample : ccv std 1-2 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)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 122211.M Tue Jan 10 12:38:52 2012 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010912\01091215.D Vial: 1
Acq On : 9 Jan 2012 6:13 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jan 9 18:44 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 09 13:16:42 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	384308	2.481 %
2)	Nitrogen	2.33	471409	2.686 %
3)	Carbon Monoxide	3.02	438453	2.720 %
4)	Methane	5.65	282332	2.090 %
5)	Carbon dioxide	9.24	538880	2.624 %

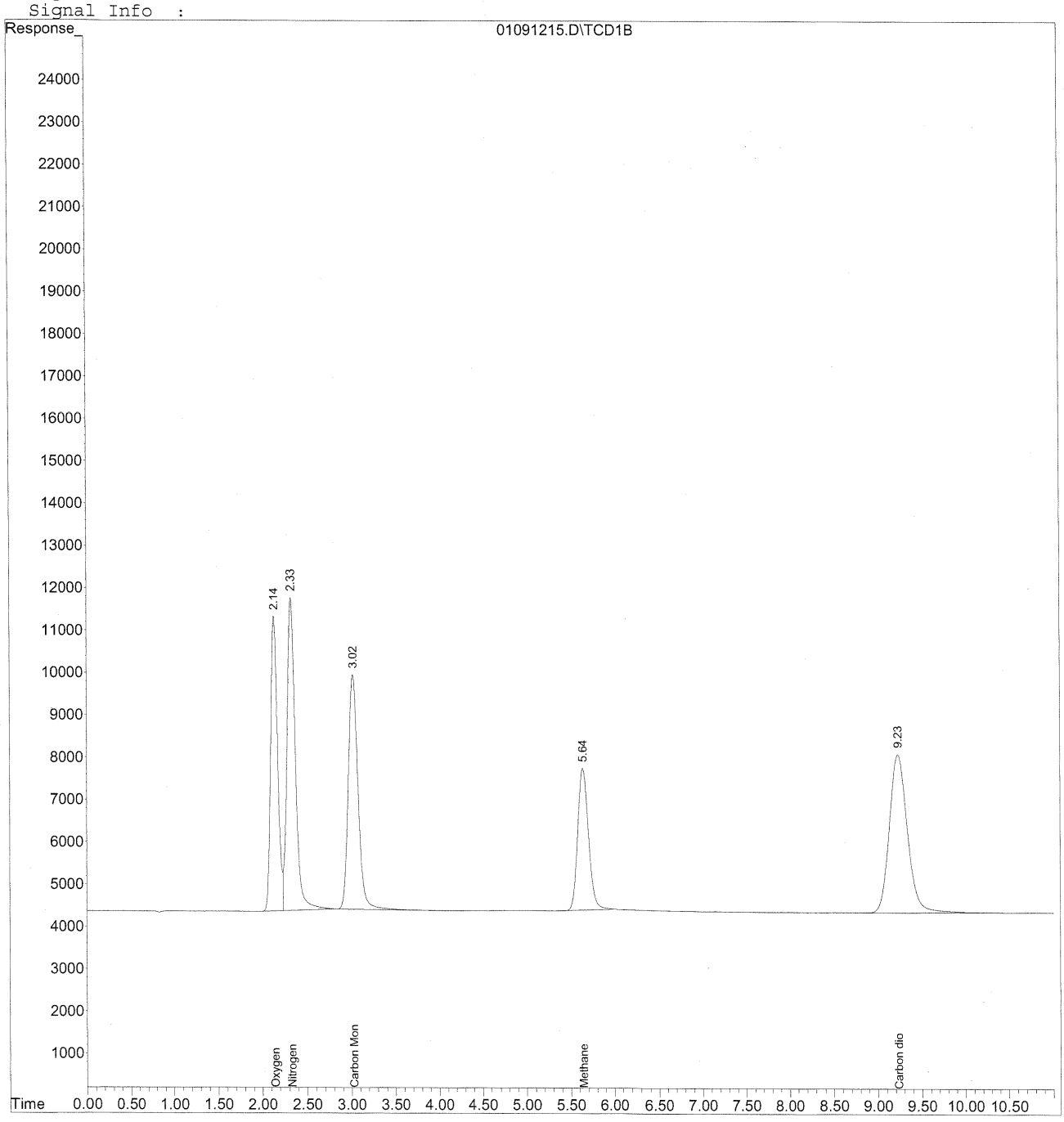
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\010912\01091215.D Vial: 1
Acq On : 9 Jan 2012 6:13 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jan 9 18:44 2012 Quant Results File: 122211.RES

Quant Method : C:\HPCHEM\2\METHODS\122211.M (Chemstation Integrator)
Title :
Last Update : Mon Jan 09 13:16:42 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 Mon Jan 09 11:49:54 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 Mon Jan 09 11:49:40 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 Mon Jan 09 11:49:02 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

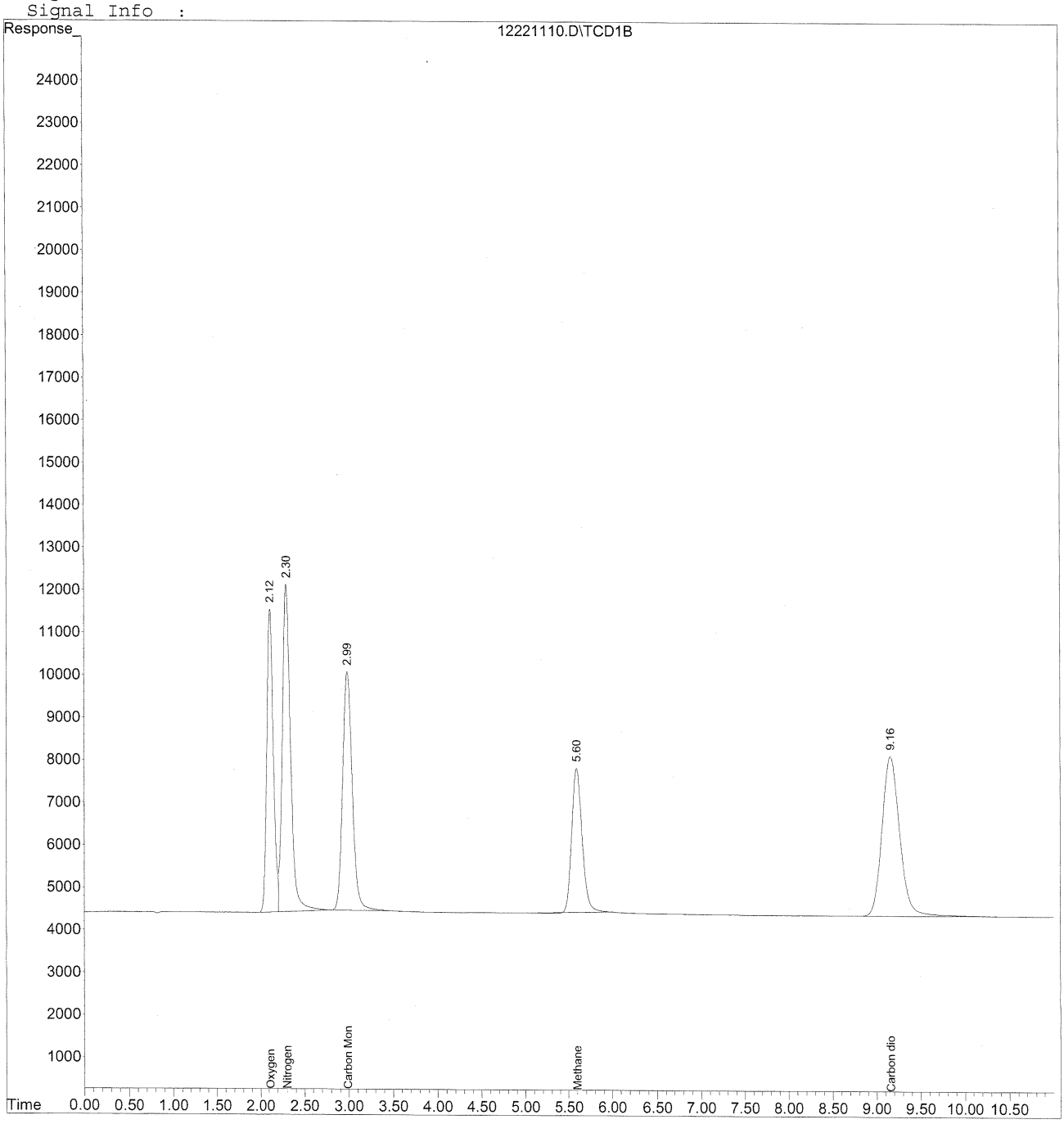
Volume Inj. :
Signal Phase :
Signal Info :

	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 :