RTI Laboratories, Inc.

Date: *07-Dec.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Lab Order: 1108899 Revised

CASE NARRATIVE

Revised Report: The original report has been revised to reflect the changes requested in the email received December 7, 2011. The analytical and QC reports have been replaced with the removal of VOCs 1,4-dioxane, ethanol and 2-propanol.

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 8/24/2011. Samples were received in good condition. The sample set consisted of 43 air samples.

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

QUALITY CONTROL:

Volatile Organic Compounds Analyses:

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

Surrogate recoveries were within established control limits.

Analytical Sequence ID 43152:
- Sample ID 1108899-043ADUP elevated RPD for some compounds due to results near or below LOQ.

Analytical Sequence ID 43035:
- Sample ID 1108899-014DUP elevated RPD for Benzene (26%) and 2-Propanol (200%) due to results near or below LOQ.

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.

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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, Director, Quality Management

Date: 12/7/2011

RTI Laboratories - Definitions and Acronyms

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Definitions:

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

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

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

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

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

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

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

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

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

PL: Permit limit; only applicable to wastewater reports.

Qual: Qualifier that applies to the analyte reported

Result: Analyte concentration reported

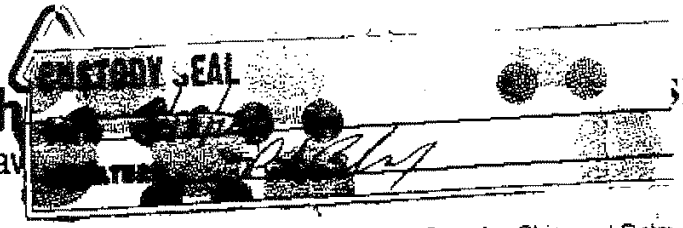
RL: Reporting Limit/Limit of Quantitation; the limit to which data is compared for reporting. Analyte concentrations below the reporting limit are reported as ND or with a "J" qualifier.

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

Qualifiers:

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

1108849



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...IS REQUEST AND ...STODY RECORD

Reference Document No: 140705-SV019

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Project Number: 140705

Project Name: Kirtland AFB

Sample Coordinator: Mark Lyon

Turnaround Time:

Samples Shipment Date: 18/ /3 2011

Lab Destination: RTI Laboratories

Lab Contact: Mike Truchan

Project Contact: Pamela Moss

Carrier/Waybill No.: UPS/2323121102

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)	Date: 8/18/11 Time: 1600	1. Received By (Signature/Affiliation)	Date: 8-24-11 Time: 09:44
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
VA0436	KAFB-106028-150-GS-VA0436-REG	15 AUG 2011	13:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		540
VA0436	KAFB-106028-150-GS-VA0436-REG	15 AUG 2011	13:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0437	KAFB-106028-250-GS-VA0437-REG	15 AUG 2011	14:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		539
VA0437	KAFB-106028-250-GS-VA0437-REG	15 AUG 2011	14:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0438	KAFB-106028-250-GS-VA0438-FD	15 AUG 2011	14:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		537
VA0438	KAFB-106028-250-GS-VA0438-FD	15 AUG 2011	14:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0439	KAFB-106028-350-GS-VA0439-REG	15 AUG 2011	15:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		535

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV019

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					
VA0439	KAFB-106028-350-GS-VA0439-REG	15 AUG 2011	15:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0440	KAFB-106028-450-GS-VA0440-REG	15 AUG 2011	15:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		531
VA0440	KAFB-106028-450-GS-VA0440-REG	15 AUG 2011	15:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0441	SVEW-01-260-GS-VA0441-REG	16 AUG 2011	11:48	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		522
VA0441	SVEW-01-260-GS-VA0441-REG	16 AUG 2011	11:48	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0442	SVEW-02-060-GS-VA0442-REG	16 AUG 2011	12:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		523
VA0442	SVEW-02-060-GS-VA0442-REG	16 AUG 2011	12:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0443	SVEW-03-160-GS-VA0443-REG	16 AUG 2011	14:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		562
VA0443	SVEW-03-160-GS-VA0443-REG	16 AUG 2011	14:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0444	SVEW-04-313-GS-VA0444-REG	16 AUG 2011	14:38	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		556
VA0444	SVEW-04-313-GS-VA0444-REG	16 AUG 2011	14:38	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0445	SVEW-05-480-GS-VA0445-REG	16 AUG 2011	14:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		555
VA0445	SVEW-05-480-GS-VA0445-REG	16 AUG 2011	14:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0446	SVEW-06-060-GS-VA0446-REG	17 AUG 2011	8:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		551
VA0446	SVEW-06-060-GS-VA0446-REG	17 AUG 2011	8:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0447	SVEW-06-060-GS-VA0447-FD	17 AUG 2011	8:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		547
VA0447	SVEW-06-060-GS-VA0447-FD	17 AUG 2011	8:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0448	SVEW-07-160-GS-VA0448-REG	17 AUG 2011	9:10	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		560
VA0448	SVEW-07-160-GS-VA0448-REG	17 AUG 2011	9:10	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0449	SVEW-08-260-GS-VA0449-REG	17 AUG 2011	9:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		516
VA0449	SVEW-08-260-GS-VA0449-REG	17 AUG 2011	9:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0450	SVEW-09-460-GS-VA0450-REG	17 AUG 2011	9:40	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		533
VA0450	SVEW-09-460-GS-VA0450-REG	17 AUG 2011	9:40	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0489	KAFB-106113-020-GS-VA0489-REG	08 AUG 2011	09:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		081
VA0489	KAFB-106113-020-GS-VA0489-REG	08 AUG 2011	09:43	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0490	KAFB-106113-050-GS-VA0490-REG	08 AUG 2011	10:35	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		88
VA0490	KAFB-106113-050-GS-VA0490-REG	08 AUG 2011	10:35	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV019

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0491	KAFB-106113-150-GS-VA0491-REG	08 AUG 2011	13:02	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		43
VA0491	KAFB-106113-150-GS-VA0491-REG	08 AUG 2011	13:02	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0503	KAFB-106115-025-GS-VA0503-REG	09 AUG 2011	09:31	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		548
VA0503	KAFB-106115-025-GS-VA0503-REG	09 AUG 2011	09:31	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0504	KAFB-106115-050-GS-VA0504-REG	09 AUG 2011	10:01	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		602
VA0504	KAFB-106115-050-GS-VA0504-REG	09 AUG 2011	10:01	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0505	KAFB-106115-150-GS-VA0505-REG	09 AUG 2011	10:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		34
VA0505	KAFB-106115-150-GS-VA0505-REG	09 AUG 2011	10:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0506	KAFB-106115-150-GS-VA0506-FD	09 AUG 2011	10:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		549
VA0506	KAFB-106115-150-GS-VA0506-FD	09 AUG 2011	10:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0507	KAFB-106115-250-GS-VA0507-REG	09 AUG 2011	13:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		547
VA0507	KAFB-106115-250-GS-VA0507-REG	09 AUG 2011	13:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0508	KAFB-106115-350-GS-VA0508-REG	09 AUG 2011	13:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		80
VA0508	KAFB-106115-350-GS-VA0508-REG	09 AUG 2011	13:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0509	KAFB-106115-450-GS-VA0509-REG	09 AUG 2011	14:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		6
VA0509	KAFB-106115-450-GS-VA0509-REG	09 AUG 2011	14:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0510	KAFB-106116-025-GS-VA0510-REG	10 AUG 2011	11:12	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		559
VA0510	KAFB-106116-025-GS-VA0510-REG	10 AUG 2011	11:12	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0511	KAFB-106116-050-GS-VA0511-REG	10 AUG 2011	11:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		557
VA0511	KAFB-106116-050-GS-VA0511-REG	10 AUG 2011	11:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0512	KAFB-106116-150-GS-VA0512-REG	10 AUG 2011	15:31	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		552
VA0512	KAFB-106116-150-GS-VA0512-REG	10 AUG 2011	15:31	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0513	KAFB-106116-250-GS-VA0513-REG	11 AUG 2011	9:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		563
VA0513	KAFB-106116-250-GS-VA0513-REG	11 AUG 2011	9:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0514	KAFB-106116-350-GS-VA0514-REG	11 AUG 2011	9:57	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		553
VA0514	KAFB-106116-350-GS-VA0514-REG	11 AUG 2011	9:57	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0573	KAFB-106126-025-GS-VA0573-REG	15 AUG 2011	08:39	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		585
VA0573	KAFB-106126-025-GS-VA0573-REG	15 AUG 2011	08:39	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV019

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0574	KAFB-106126-050-GS-VA0574-REG	15 AUG 2011	09:08	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		536
VA0574	KAFB-106126-050-GS-VA0574-REG	15 AUG 2011	09:08	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0575	KAFB-106126-150-GS-VA0575-REG	15 AUG 2011	09:42	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		541
VA0575	KAFB-106126-150-GS-VA0575-REG	15 AUG 2011	09:42	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0576	KAFB-106126-250-GS-VA0576-REG	15 AUG 2011	10:20	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		529
VA0576	KAFB-106126-250-GS-VA0576-REG	15 AUG 2011	10:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0577	KAFB-106126-350-GS-VA0577-REG	15 AUG 2011	10:58	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		538
VA0577	KAFB-106126-350-GS-VA0577-REG	15 AUG 2011	10:58	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0578	KAFB-106126-450-GS-VA0578-REG	15 AUG 2011	11:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0578	KAFB-106126-450-GS-VA0578-REG	15 AUG 2011	11:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		530
VA0679	KAFB-106141-350-GS-VA0679-REG	03 AUG 2011	10:36	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		612
VA0679	KAFB-106141-350-GS-VA0679-REG	03 AUG 2011	10:36	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0680	KAFB-106141-450-GS-VA0680-REG	03 AUG 2011	11:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		586
VA0680	KAFB-106141-450-GS-VA0680-REG	03 AUG 2011	11:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8036-TB	FIELDQC-AQ-VA8036-TB-TB	16 AUG 2011	07:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		565
VA9029	ST106-IN-GS-VA9029-REG	16 AUG 2011	10:18	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		
VA9029	ST106-IN-GS-VA9029-REG	16 AUG 2011	10:18	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		539
VA9030	ST106-POSTC1-GS-VA9030-REG	16 AUG 2011	10:45	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		
VA9030	ST106-POSTC1-GS-VA9030-REG	16 AUG 2011	10:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		515
VA9031	ST106-POSTC2-GS-VA9031-REG	16 AUG 2011	10:46	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		
VA9031	ST106-POSTC2-GS-VA9031-REG	16 AUG 2011	10:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		532
VA9034	KAFB1065-POSTC2-GS-VA9034-REG	16 AUG 2011	09:03	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		
VA9034	KAFB1065-POSTC2-GS-VA9034-REG	16 AUG 2011	09:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		550

United States

Tracking Number: Track

Log in for additional tracking details.

Other Tracking Options

Tracking Details

1Z10335E0340963885

Delivered

Delivered On:
Wednesday, 08/24/2011 at 9:44 A.M.

Request Status Updates

Left At:
Receiver:

Signed By:
FLORES

Shipping Information

To: LIVONIA, MI, US

Shipped By

UPS Ground

Additional Information

Multiple Packages:	5
Shipped/Billed On:	08/18/2011
Type:	Package
Weight:	3.00 lbs

Shipment Progress

Packages in this Shipment (Total Packages: 5)

Select a tracking number to see the detail for another package.

Tracking Number	Reference	Status	Shipped	Scheduled Service	Weight
[illegible]		Delivered	08/18/2011	UPS Ground	8.00 LB
[illegible]		Delivered	08/18/2011	UPS Ground	50.00 LB
[illegible]		Delivered	08/18/2011	UPS Ground	28.00 LB
[illegible]		In Transit	08/18/2011	UPS Ground	10.00 LB

Contact UPS

Support

Solutions for

Other UPS Sites

Select a website

WE LOGISTICS

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

REF 1 140705
REF 2 ba010030

UPS GROUND
TRACKING #: 1Z 103 35E 03 4096 3885

BILLING: P/P
HAZARDOUS MATERIALS - GROUND ONLY
HAZ# 1/6

CUSTODY SEAL
DATE 8/15/11
SIGNATURE

FROM:
RONDA BAILEY
(505) 917-0645
KAFB BFF SHAW E & I INC
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87110

10 LBS 5 OF 5
DWT: 24.14.14

MI 482 9-02

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

UPS GROUND
TRACKING # 1Z 103 35E 03 4181 2296

REF 1: 140705
REF 2: ba010030

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

RTI LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150

P: RED2 S: MNITE L: 3
19F – FL2
1Z10335E034003 8072

T - 10 Door: 1215
MI 48150
UPST 303973 MI 482 9-02

Cooler

UPS GROUND

1Z10335E0340038072

DWS ID Label

P100019 8407175 Aug 22 22:02:36 2011 US 06059 N

CUSTODY SEAL
DATE 8/18/11
SIGNATURE

REC
Quality Environmental Containers
800-255-3950 · 304-255-3900

FLAMMABLE GA
2
UN3167
Gas sample, non-pressurized, fl
2.1
4 bottles
SHIP TO:
RTI LABORATORIES
MICHAEL TRUCHAN
31628 GLENDALE ST
LIVONIA MI 48150 1827
MI 482 9-02
UPS GROUND
TRACKING # 1Z 103 35E 03 4003 8072
87117

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: **8/24/2011 7:00:24 PM**

Work Order Number **1108899** RcptNo: **1** Received by: **Armando Flores**

Completed by: Reviewed by:

Completed Date: 8/25/2011 4:33:12 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:	4 boxes & 1 cooler; See COC			
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
1108899-001A	Container-1 of 1	Bottle				
1108899-001B	Container-1 of 1	Bottle				
1108899-002A	Container-1 of 1	Bottle				
1108899-002B	Container-1 of 1	Bottle				
1108899-003A	Container-1 of 1	Bottle				
1108899-003B	Container-1 of 1	Bottle				
1108899-004A	Container-1 of 1	Bottle				
1108899-004B	Container-1 of 1	Bottle				
1108899-005A	Container-1 of 1	Bottle				
1108899-005B	Container-1 of 1	Bottle				
1108899-006A	Container-1 of 1	Bottle				
1108899-006B	Container-1 of 1	Bottle				
1108899-007A	Container-1 of 1	Bottle				
1108899-007B	Container-1 of 1	Bottle				
1108899-008A	Container-1 of 1	Bottle				
1108899-008B	Container-1 of 1	Bottle				
1108899-009A	Container-1 of 1	Bottle				
1108899-009B	Container-1 of 1	Bottle				
1108899-010A	Container-1 of 1	Bottle				
1108899-010B	Container-1 of 1	Bottle				
1108899-011A	Container-1 of 1	Bottle				
1108899-011B	Container-1 of 1	Bottle				
1108899-012A	Container-1 of 1	Bottle				
1108899-012B	Container-1 of 1	Bottle				
1108899-013A	Container-1 of 1	Bottle				
1108899-013B	Container-1 of 1	Bottle				
1108899-014A	Container-1 of 1	Bottle				
1108899-014B	Container-1 of 1	Bottle				
1108899-015A	Container-01 of 01	Bottle				
1108899-015B	Container-01 of 01	Bottle				
1108899-016A	Container-01 of 01	Bottle				
1108899-016B	Container-01 of 01	Bottle				
1108899-017A	Container-01 of 01	Bottle				
1108899-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1108899-018A	Container-1 of 1	Bottle				
1108899-018B	Container-1 of 1	Bottle				
1108899-019A	Container-1 of 1	Bottle				
1108899-019B	Container-1 of 1	Bottle				
1108899-020A	Container-1 of 1	Bottle				
1108899-020B	Container-1 of 1	Bottle				
1108899-021A	Container-1 of 1	Bottle				
1108899-021B	Container-1 of 1	Bottle				
1108899-022A	Container-1 of 1	Bottle				
1108899-022B	Container-1 of 1	Bottle				
1108899-023A	Container-1 of 1	Bottle				
1108899-023B	Container-1 of 1	Bottle				
1108899-024A	Container-1 of 1	Bottle				
1108899-024B	Container-1 of 1	Bottle				
1108899-025A	Container-1 of 1	Bottle				
1108899-025B	Container-1 of 1	Bottle				
1108899-026A	Container-1 of 1	Bottle				
1108899-026B	Container-1 of 1	Bottle				
1108899-027A	Container-1 of 1	Bottle				
1108899-027B	Container-1 of 1	Bottle				
1108899-028A	Container-1 of 1	Bottle				
1108899-028B	Container-1 of 1	Bottle				
1108899-029A	Container-1 of 1	Bottle				
1108899-029B	Container-1 of 1	Bottle				
1108899-030A	Container-1 of 1	Bottle				
1108899-030B	Container-1 of 1	Bottle				
1108899-031A	Container-1 of 1	Bottle				
1108899-031B	Container-1 of 1	Bottle				
1108899-032A	Container-1 of 1	Bottle				
1108899-032B	Container-1 of 1	Bottle				
1108899-033A	Container-1 of 1	Bottle				
1108899-033B	Container-1 of 1	Bottle				
1108899-034A	Container-1 of 1	Bottle				
1108899-034B	Container-1 of 1	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1108899-035A	Container-1 of 1	Bottle				
1108899-035B	Container-1 of 1	Bottle				
1108899-036A	Container-1 of 1	Bottle				
1108899-036B	Container-1 of 1	Bottle				
1108899-037A	Container-1 of 1	Bottle				
1108899-037B	Container-1 of 1	Bottle				
1108899-038A	Container-1 of 1	Bottle				
1108899-038B	Container-1 of 1	Bottle				
1108899-039A	Container-1 of 1	Bottle				
1108899-040A	Container-1 of 1	Bottle				
1108899-040B	Container-1 of 1	Bottle				
1108899-041A	Container-1 of 1	Bottle				
1108899-041B	Container-1 of 1	Bottle				
1108899-042A	Container-1 of 1	Bottle				
1108899-042B	Container-1 of 1	Bottle				
1108899-043A	Container-1 of 1	Bottle				
1108899-043B	Container-1 of 1	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: Contacted By:

Regarding:

CorrectiveAction:

Comments:
4 boxes & 1 cooler (all seals intact) 8/25/11. AF

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: **1108899**

20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1108899-001	VA0436		8/15/2011 1:41:00 PM	8/24/2011 9:44:00 AM	Air
1108899-001	VA0436		8/15/2011 1:41:00 PM	8/24/2011 9:44:00 AM	Air
1108899-002	VA0437		8/15/2011 2:22:00 PM	8/24/2011 9:44:00 AM	Air
1108899-002	VA0437		8/15/2011 2:22:00 PM	8/24/2011 9:44:00 AM	Air
1108899-003	VA0438		8/15/2011 2:22:00 PM	8/24/2011 9:44:00 AM	Air
1108899-003	VA0438		8/15/2011 2:22:00 PM	8/24/2011 9:44:00 AM	Air
1108899-004	VA0439		8/15/2011 3:10:00 PM	8/24/2011 9:44:00 AM	Air
1108899-004	VA0439		8/15/2011 3:10:00 PM	8/24/2011 9:44:00 AM	Air
1108899-005	VA0440		8/15/2011 3:26:00 PM	8/24/2011 9:44:00 AM	Air
1108899-005	VA0440		8/15/2011 3:26:00 PM	8/24/2011 9:44:00 AM	Air
1108899-006	VA0441		8/16/2011 11:48:00 AM	8/24/2011 9:44:00 AM	Air
1108899-006	VA0441		8/16/2011 11:48:00 AM	8/24/2011 9:44:00 AM	Air
1108899-007	VA0442		8/16/2011 12:15:00 PM	8/24/2011 9:44:00 AM	Air
1108899-007	VA0442		8/16/2011 12:15:00 PM	8/24/2011 9:44:00 AM	Air
1108899-008	VA0443		8/16/2011 2:10:00 PM	8/24/2011 9:44:00 AM	Air
1108899-008	VA0443		8/16/2011 2:10:00 PM	8/24/2011 9:44:00 AM	Air
1108899-009	VA0444		8/16/2011 2:38:00 PM	8/24/2011 9:44:00 AM	Air
1108899-009	VA0444		8/16/2011 2:38:00 PM	8/24/2011 9:44:00 AM	Air
1108899-010	VA0445		8/16/2011 2:58:00 PM	8/24/2011 9:44:00 AM	Air
1108899-010	VA0445		8/16/2011 2:58:00 PM	8/24/2011 9:44:00 AM	Air
1108899-011	VA0446		8/17/2011 8:39:00 AM	8/24/2011 9:44:00 AM	Air
1108899-011	VA0446		8/17/2011 8:39:00 AM	8/24/2011 9:44:00 AM	Air
1108899-012	VA0447		8/17/2011 8:49:00 AM	8/24/2011 9:44:00 AM	Air
1108899-012	VA0447		8/17/2011 8:49:00 AM	8/24/2011 9:44:00 AM	Air
1108899-013	VA0448		8/17/2011 9:10:00 AM	8/24/2011 9:44:00 AM	Air
1108899-013	VA0448		8/17/2011 9:10:00 AM	8/24/2011 9:44:00 AM	Air
1108899-014	VA0449		8/17/2011 9:26:00 AM	8/24/2011 9:44:00 AM	Air
1108899-014	VA0449		8/17/2011 9:26:00 AM	8/24/2011 9:44:00 AM	Air
1108899-015	VA0450		8/17/2011 9:40:00 AM	8/24/2011 9:44:00 AM	Air
1108899-015	VA0450		8/17/2011 9:40:00 AM	8/24/2011 9:44:00 AM	Air
1108899-016	VA0489		8/8/2011 9:43:00 AM	8/24/2011 9:44:00 AM	Air
1108899-016	VA0489		8/8/2011 9:43:00 AM	8/24/2011 9:44:00 AM	Air
1108899-017	VA0490		8/8/2011 10:35:00 AM	8/24/2011 9:44:00 AM	Air
1108899-017	VA0490		8/8/2011 10:35:00 AM	8/24/2011 9:44:00 AM	Air

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: **1108899**

20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1108899-018	VA0491		8/8/2011 1:02:00 PM	8/24/2011 9:44:00 AM	Air
1108899-018	VA0491		8/8/2011 1:02:00 PM	8/24/2011 9:44:00 AM	Air
1108899-019	VA0503		8/9/2011 9:31:00 AM	8/24/2011 9:44:00 AM	Air
1108899-019	VA0503		8/9/2011 9:31:00 AM	8/24/2011 9:44:00 AM	Air
1108899-020	VA0504		8/9/2011 10:01:00 AM	8/24/2011 9:44:00 AM	Air
1108899-020	VA0504		8/9/2011 10:01:00 AM	8/24/2011 9:44:00 AM	Air
1108899-021	VA0505		8/9/2011 10:42:00 AM	8/24/2011 9:44:00 AM	Air
1108899-021	VA0505		8/9/2011 10:42:00 AM	8/24/2011 9:44:00 AM	Air
1108899-022	VA0506		8/9/2011 10:42:00 AM	8/24/2011 9:44:00 AM	Air
1108899-022	VA0506		8/9/2011 10:42:00 AM	8/24/2011 9:44:00 AM	Air
1108899-023	VA0507		8/9/2011 1:04:00 PM	8/24/2011 9:44:00 AM	Air
1108899-023	VA0507		8/9/2011 1:04:00 PM	8/24/2011 9:44:00 AM	Air
1108899-024	VA0508		8/9/2011 1:42:00 PM	8/24/2011 9:44:00 AM	Air
1108899-024	VA0508		8/9/2011 1:42:00 PM	8/24/2011 9:44:00 AM	Air
1108899-025	VA0509		8/9/2011 2:36:00 PM	8/24/2011 9:44:00 AM	Air
1108899-025	VA0509		8/9/2011 2:36:00 PM	8/24/2011 9:44:00 AM	Air
1108899-026	VA0510		8/10/2011 11:12:00 AM	8/24/2011 9:44:00 AM	Air
1108899-026	VA0510		8/10/2011 11:12:00 AM	8/24/2011 9:44:00 AM	Air
1108899-027	VA0511		8/10/2011 11:53:00 AM	8/24/2011 9:44:00 AM	Air
1108899-027	VA0511		8/10/2011 11:53:00 AM	8/24/2011 9:44:00 AM	Air
1108899-028	VA0512		8/10/2011 3:31:00 PM	8/24/2011 9:44:00 AM	Air
1108899-028	VA0512		8/10/2011 3:31:00 PM	8/24/2011 9:44:00 AM	Air
1108899-029	VA0513		8/11/2011 9:22:00 AM	8/24/2011 9:44:00 AM	Air
1108899-029	VA0513		8/11/2011 9:22:00 AM	8/24/2011 9:44:00 AM	Air
1108899-030	VA0514		8/11/2011 9:57:00 AM	8/24/2011 9:44:00 AM	Air
1108899-030	VA0514		8/11/2011 9:57:00 AM	8/24/2011 9:44:00 AM	Air
1108899-031	VA0573		8/15/2011 8:39:00 AM	8/24/2011 9:44:00 AM	Air
1108899-031	VA0573		8/15/2011 8:39:00 AM	8/24/2011 9:44:00 AM	Air
1108899-032	VA0574		8/15/2011 9:08:00 AM	8/24/2011 9:44:00 AM	Air
1108899-032	VA0574		8/15/2011 9:08:00 AM	8/24/2011 9:44:00 AM	Air
1108899-033	VA0575		8/15/2011 9:42:00 AM	8/24/2011 9:44:00 AM	Air
1108899-033	VA0575		8/15/2011 9:42:00 AM	8/24/2011 9:44:00 AM	Air
1108899-034	VA0576		8/15/2011 10:20:00 AM	8/24/2011 9:44:00 AM	Air
1108899-034	VA0576		8/15/2011 10:20:00 AM	8/24/2011 9:44:00 AM	Air

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: **1108899**

20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1108899-035	VA0577		8/15/2011 10:58:00 AM	8/24/2011 9:44:00 AM	Air
1108899-035	VA0577		8/15/2011 10:58:00 AM	8/24/2011 9:44:00 AM	Air
1108899-036	VA0578		8/15/2011 11:47:00 AM	8/24/2011 9:44:00 AM	Air
1108899-036	VA0578		8/15/2011 11:47:00 AM	8/24/2011 9:44:00 AM	Air
1108899-037	VA0679		8/3/2011 10:36:00 AM	8/24/2011 9:44:00 AM	Air
1108899-037	VA0679		8/3/2011 10:36:00 AM	8/24/2011 9:44:00 AM	Air
1108899-038	VA0680		8/3/2011 11:15:00 AM	8/24/2011 9:44:00 AM	Air
1108899-038	VA0680		8/3/2011 11:15:00 AM	8/24/2011 9:44:00 AM	Air
1108899-039	VA8036-TB		8/16/2011 7:00:00 AM	8/24/2011 9:44:00 AM	Air
1108899-040	VA9029		8/16/2011 10:18:00 AM	8/24/2011 9:44:00 AM	Air
1108899-040	VA9029		8/16/2011 10:18:00 AM	8/24/2011 9:44:00 AM	Air
1108899-041	VA9030		8/16/2011 10:45:00 AM	8/24/2011 9:44:00 AM	Air
1108899-041	VA9030		8/16/2011 10:45:00 AM	8/24/2011 9:44:00 AM	Air
1108899-042	VA9031		8/16/2011 10:46:00 AM	8/24/2011 9:44:00 AM	Air
1108899-042	VA9031		8/16/2011 10:46:00 AM	8/24/2011 9:44:00 AM	Air
1108899-043	VA9034		8/16/2011 9:03:00 AM	8/24/2011 9:44:00 AM	Air
1108899-043	VA9034		8/16/2011 9:03:00 AM	8/24/2011 9:44:00 AM	Air

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Website: www.rtilabs.com

DATES REPORT

WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-001A	VA0436	8/15/2011 1:41:00 PM	Air	Air-Phase Petroleum Hydrocarbons			9/6/2011 5:12:00 PM
				Air-Phase Petroleum Hydrocarbons			9/22/2011 6:06:00 PM
				Volatile Organic Compounds			9/22/2011 9:38:00 PM
1108899-001B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 4:39:00 PM
1108899-002A	VA0437	8/15/2011 2:22:00 PM		Air-Phase Petroleum Hydrocarbons			9/6/2011 6:42:00 PM
				Volatile Organic Compounds			9/22/2011 11:12:00 PM
1108899-002B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 5:03:00 PM
1108899-003A	VA0438			Air-Phase Petroleum Hydrocarbons			9/6/2011 7:29:00 PM
				Volatile Organic Compounds			9/23/2011 12:03:00 AM
1108899-003B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 5:24:00 PM
1108899-004A	VA0439	8/15/2011 3:10:00 PM		Air-Phase Petroleum Hydrocarbons			9/6/2011 8:16:00 PM
				Volatile Organic Compounds			9/23/2011 12:50:00 AM
1108899-004B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 6:00:00 PM
1108899-005A	VA0440	8/15/2011 3:26:00 PM		Air-Phase Petroleum Hydrocarbons			9/6/2011 9:03:00 PM
				Volatile Organic Compounds			9/23/2011 1:38:00 AM
1108899-005B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 1:48:00 PM
1108899-006A	VA0441	8/16/2011 11:48:00 AM		Air-Phase Petroleum Hydrocarbons			9/22/2011 6:48:00 PM
				Volatile Organic Compounds			9/23/2011 9:24:00 AM
1108899-006B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 2:07:00 PM
1108899-007A	VA0442	8/16/2011 12:15:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 9:33:00 PM
				Volatile Organic Compounds			9/23/2011 7:03:00 AM

RTI LABORATORIES, INC.

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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
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DATES REPORT

WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-007B	VA0442	8/16/2011 12:15:00 PM	Air	Noncondensable Gases and Light Hydrocarbons			9/14/2011 2:56:00 PM
1108899-008A	VA0443	8/16/2011 2:10:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 10:15:00 PM
				Volatile Organic Compounds			9/23/2011 10:09:00 AM
1108899-008B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 3:17:00 PM
1108899-009A	VA0444	8/16/2011 2:38:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 12:31:00 AM
				Volatile Organic Compounds			9/23/2011 10:54:00 AM
1108899-009B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 3:48:00 PM
1108899-010A	VA0445	8/16/2011 2:58:00 PM		Air-Phase Petroleum Hydrocarbons			9/23/2011 1:55:00 AM
				Volatile Organic Compounds			9/23/2011 6:57:00 PM
1108899-010B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 4:07:00 PM
1108899-011A	VA0446	8/17/2011 8:39:00 AM		Air-Phase Petroleum Hydrocarbons			9/7/2011 1:47:00 AM
				Volatile Organic Compounds			9/23/2011 12:30:00 PM
1108899-011B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 4:39:00 PM
1108899-012A	VA0447	8/17/2011 8:49:00 AM		Air-Phase Petroleum Hydrocarbons			9/7/2011 2:34:00 AM
				Volatile Organic Compounds			9/23/2011 1:19:00 PM
1108899-012B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 5:06:00 PM
1108899-013A	VA0448	8/17/2011 9:10:00 AM		Air-Phase Petroleum Hydrocarbons			9/23/2011 2:37:00 AM
				Volatile Organic Compounds			9/23/2011 7:40:00 PM
1108899-013B				Noncondensable Gases and Light Hydrocarbons			9/14/2011 5:31:00 PM
1108899-014A	VA0449	8/17/2011 9:26:00 AM		Air-Phase Petroleum Hydrocarbons			9/23/2011 3:19:00 AM
				Volatile Organic Compounds			9/23/2011 8:23:00 PM

RTI LABORATORIES, INC.

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

DATES REPORT

WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-014B	VA0449	8/17/2011 9:26:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			9/14/2011 5:55:00 PM
1108899-015A	VA0450	8/17/2011 9:40:00 AM		Air-Phase Petroleum Hydrocarbons			9/23/2011 4:02:00 AM
				Volatile Organic Compounds			9/23/2011 9:52:00 PM
1108899-015B				Noncondensable Gases and Light Hydrocarbons			9/15/2011 2:50:00 PM
1108899-016A	VA0489	8/8/2011 9:43:00 AM		Air-Phase Petroleum Hydrocarbons			8/30/2011 11:33:00 PM
				Volatile Organic Compounds			10/7/2011 4:00:00 PM
1108899-016B				Noncondensable Gases and Light Hydrocarbons			9/2/2011 2:55:00 PM
1108899-017A	VA0490	8/8/2011 10:35:00 AM		Air-Phase Petroleum Hydrocarbons			8/31/2011 1:58:00 PM
				Volatile Organic Compounds			10/6/2011 9:11:00 PM
1108899-017B				Noncondensable Gases and Light Hydrocarbons			9/2/2011 3:53:00 PM
1108899-018A	VA0491	8/8/2011 1:02:00 PM		Air-Phase Petroleum Hydrocarbons			8/31/2011 2:43:00 PM
				Volatile Organic Compounds			10/6/2011 9:56:00 PM
1108899-018B				Noncondensable Gases and Light Hydrocarbons			9/2/2011 4:24:00 PM
1108899-019A	VA0503	8/9/2011 9:31:00 AM		Air-Phase Petroleum Hydrocarbons			9/1/2011 5:52:00 PM
				Air-Phase Petroleum Hydrocarbons			8/31/2011 7:10:00 PM
				Volatile Organic Compounds			9/21/2011 7:16:00 PM
1108899-019B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 1:35:00 PM
1108899-020A	VA0504	8/9/2011 10:01:00 AM		Air-Phase Petroleum Hydrocarbons			8/31/2011 8:38:00 PM
				Volatile Organic Compounds			9/21/2011 8:50:00 PM
1108899-020B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 1:57:00 PM
1108899-021A	VA0505	8/9/2011 10:42:00 AM		Air-Phase Petroleum Hydrocarbons			9/1/2011 6:34:00 PM

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WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-021A	VA0505	8/9/2011 10:42:00 AM	Air	Volatile Organic Compounds			9/21/2011 9:33:00 PM
1108899-021B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 2:18:00 PM
1108899-022A	VA0506			Air-Phase Petroleum Hydrocarbons			9/1/2011 7:17:00 PM
				Volatile Organic Compounds			9/21/2011 10:17:00 PM
1108899-022B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 2:41:00 PM
1108899-023A	VA0507	8/9/2011 1:04:00 PM		Air-Phase Petroleum Hydrocarbons			9/1/2011 8:42:00 PM
				Volatile Organic Compounds			9/21/2011 11:02:00 PM
1108899-023B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 3:01:00 PM
1108899-024A	VA0508	8/9/2011 1:42:00 PM		Air-Phase Petroleum Hydrocarbons			9/1/2011 2:59:00 PM
				Volatile Organic Compounds			9/21/2011 11:49:00 PM
1108899-024B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 3:20:00 PM
1108899-025A	VA0509	8/9/2011 2:36:00 PM		Air-Phase Petroleum Hydrocarbons			9/22/2011 12:48:00 PM
				Volatile Organic Compounds			9/22/2011 8:20:00 AM
1108899-025B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 3:41:00 PM
1108899-026A	VA0510	8/10/2011 11:12:00 AM		Air-Phase Petroleum Hydrocarbons			9/1/2011 1:13:00 AM
				Volatile Organic Compounds			9/22/2011 1:05:00 PM
1108899-026B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 6:20:00 PM
1108899-027A	VA0511	8/10/2011 11:53:00 AM		Air-Phase Petroleum Hydrocarbons			9/1/2011 1:59:00 AM
				Volatile Organic Compounds			9/22/2011 2:11:00 AM
1108899-027B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 4:00:00 PM
1108899-028A	VA0512	8/10/2011 3:31:00 PM		Air-Phase Petroleum Hydrocarbons			9/1/2011 3:30:00 AM

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DATES REPORT

WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-028A	VA0512	8/10/2011 3:31:00 PM	Air	Volatile Organic Compounds			9/22/2011 3:02:00 AM
1108899-028B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 4:24:00 PM
1108899-029A	VA0513	8/11/2011 9:22:00 AM		Air-Phase Petroleum Hydrocarbons			9/1/2011 9:28:00 PM
				Volatile Organic Compounds			9/22/2011 3:52:00 AM
1108899-029B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 6:43:00 PM
1108899-030A	VA0514	8/11/2011 9:57:00 AM		Air-Phase Petroleum Hydrocarbons			9/21/2011 11:40:00 PM
				Volatile Organic Compounds			9/22/2011 9:05:00 AM
1108899-030B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 4:44:00 PM
1108899-031A	VA0573	8/15/2011 8:39:00 AM		Air-Phase Petroleum Hydrocarbons			9/6/2011 12:32:00 PM
				Volatile Organic Compounds			9/22/2011 5:30:00 AM
1108899-031B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 2:00:00 PM
1108899-032A	VA0574	8/15/2011 9:08:00 AM		Air-Phase Petroleum Hydrocarbons			9/6/2011 1:19:00 PM
				Volatile Organic Compounds			9/22/2011 6:21:00 AM
1108899-032B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 2:36:00 PM
1108899-033A	VA0575	8/15/2011 9:42:00 AM		Air-Phase Petroleum Hydrocarbons			9/6/2011 2:06:00 PM
				Volatile Organic Compounds			9/22/2011 9:56:00 AM
1108899-033B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 2:55:00 PM
1108899-034A	VA0576	8/15/2011 10:20:00 AM		Air-Phase Petroleum Hydrocarbons			9/6/2011 2:52:00 PM
				Volatile Organic Compounds			9/22/2011 10:47:00 AM
1108899-034B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 3:33:00 PM
1108899-035A	VA0577	8/15/2011 10:58:00 AM		Air-Phase Petroleum Hydrocarbons			9/6/2011 3:41:00 PM

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WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-035A	VA0577	8/15/2011 10:58:00 AM	Air	Volatile Organic Compounds			9/22/2011 8:04:00 PM
1108899-035B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 3:57:00 PM
1108899-036A	VA0578	8/15/2011 11:47:00 AM		Air-Phase Petroleum Hydrocarbons			9/22/2011 2:19:00 PM
				Volatile Organic Compounds			9/22/2011 8:54:00 PM
1108899-036B				Noncondensable Gases and Light Hydrocarbons			9/13/2011 4:16:00 PM
1108899-037A	VA0679	8/3/2011 10:36:00 AM		Air-Phase Petroleum Hydrocarbons			8/30/2011 2:48:00 PM
				Volatile Organic Compounds			10/5/2011 1:59:00 AM
1108899-037B				Noncondensable Gases and Light Hydrocarbons			9/1/2011 6:17:00 PM
1108899-038A	VA0680	8/3/2011 11:15:00 AM		Air-Phase Petroleum Hydrocarbons			8/31/2011 12:18:00 AM
				Volatile Organic Compounds			10/5/2011 10:14:00 AM
1108899-038B				Noncondensable Gases and Light Hydrocarbons			9/7/2011 6:01:00 PM
1108899-039A	VA8036-TB	8/16/2011 7:00:00 AM		Volatile Organic Compounds			9/23/2011 7:54:00 AM
1108899-040A	VA9029	8/16/2011 10:18:00 AM		Volatile Organic Compounds			9/23/2011 8:36:00 AM
1108899-040B				Noncondensable Gases and Light Hydrocarbons			9/15/2011 3:12:00 PM
1108899-041A	VA9030	8/16/2011 10:45:00 AM		Volatile Organic Compounds			9/29/2011 7:54:00 PM
1108899-041B				Noncondensable Gases and Light Hydrocarbons			9/15/2011 3:32:00 PM
1108899-042A	VA9031	8/16/2011 10:46:00 AM		Volatile Organic Compounds			9/29/2011 8:38:00 PM
1108899-042B				Noncondensable Gases and Light Hydrocarbons			9/15/2011 4:11:00 PM
1108899-043A	VA9034	8/16/2011 9:03:00 AM		Volatile Organic Compounds			9/30/2011 10:55:00 AM
				Volatile Organic Compounds			9/29/2011 6:31:00 PM

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DATES REPORT

WO#: **1108899**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1108899-043B	VA9034	8/16/2011 9:03:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			9/15/2011 4:31:00 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 1:41:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-001	**Matrix:**	Air
Client Sample ID:	VA0436		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.093	0.10	J	%	1	9/13/2011 4:39 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 4:39 PM
Methane	ND	0.50		%	1	9/13/2011 4:39 PM
Nitrogen	79	0.10		%	1	9/13/2011 4:39 PM
Oxygen	21	0.10		%	1	9/13/2011 4:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
2-Butanone	ND	40	H	ppbv	40	9/22/2011 9:38 PM
2-Hexanone	ND	40	H	ppbv	40	9/22/2011 9:38 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Acetone	48	40	H	ppbv	40	9/22/2011 9:38 PM
Benzene	900	40	H	ppbv	40	9/22/2011 9:38 PM
Benzyl chloride	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Bromoform	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Bromomethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Carbon disulfide	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Chlorobenzene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Chloroethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Chloroform	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Chloromethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/22/2011 9:38 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 1:41:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-001	**Matrix:**	Air
Client Sample ID:	VA0436		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,700	80	H	ppbv	40	9/22/2011 9:38 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Ethyl acetate	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Ethylbenzene	58	80	JH	ppbv	40	9/22/2011 9:38 PM
Heptane	1,300	40	H	ppbv	40	9/22/2011 9:38 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/22/2011 9:38 PM
m,p-Xylene	200	80	H	ppbv	40	9/22/2011 9:38 PM
Methylene chloride	ND	200	H	ppbv	40	9/22/2011 9:38 PM
n-Hexane	990	80	H	ppbv	40	9/22/2011 9:38 PM
Naphthalene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
o-Xylene	52	40	H	ppbv	40	9/22/2011 9:38 PM
Propylene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Styrene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Toluene	2,300	40	H	ppbv	40	9/22/2011 9:38 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Trichloroethene	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Vinyl acetate	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Vinyl chloride	ND	40	H	ppbv	40	9/22/2011 9:38 PM
Xylenes, Total	260	120	H	ppbv	40	9/22/2011 9:38 PM
Surr: 4-Bromofluorobenzene	83.8	70-130	H	%REC	40	9/22/2011 9:38 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	210,000	47,000	H	µg/m³	400	9/22/2011 6:06 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	9/22/2011 6:06 PM
C9-C12 Aliphatic Hydrocarbons	26,000	76,000	JH	µg/m³	400	9/22/2011 6:06 PM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	400	9/22/2011 6:06 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 2:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-002	**Matrix:**	Air
Client Sample ID:	VA0437		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.16	0.10		%	1	9/13/2011 5:03 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 5:03 PM
Methane	ND	0.50		%	1	9/13/2011 5:03 PM
Nitrogen	78	0.10		%	1	9/13/2011 5:03 PM
Oxygen	21	0.10		%	1	9/13/2011 5:03 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 11:12 PM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 11:12 PM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Acetone	1,900	400	H	ppbv	400	9/22/2011 11:12 PM
Benzene	2,400	400	H	ppbv	400	9/22/2011 11:12 PM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Bromoform	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Chloroform	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 11:12 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 2:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-002	**Matrix:**	Air
Client Sample ID:	VA0437		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	4,400	800	H	ppbv	400	9/22/2011 11:12 PM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 11:12 PM
Heptane	3,200	400	H	ppbv	400	9/22/2011 11:12 PM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 11:12 PM
m,p-Xylene	640	800	JH	ppbv	400	9/22/2011 11:12 PM
Methylene chloride	2,900	2,000	H	ppbv	400	9/22/2011 11:12 PM
n-Hexane	4,600	800	H	ppbv	400	9/22/2011 11:12 PM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Propylene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Styrene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Toluene	5,500	400	H	ppbv	400	9/22/2011 11:12 PM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 11:12 PM
Xylenes, Total	640	1,200	JH	ppbv	400	9/22/2011 11:12 PM
Surr: 4-Bromofluorobenzene	100	70-130	H	%REC	400	9/22/2011 11:12 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	94,000		µg/m³	800	9/6/2011 6:42 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 6:42 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 6:42 PM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	800	9/6/2011 6:42 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 2:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-003	**Matrix:**	Air
Client Sample ID:	VA0438		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.17	0.10		%	1	9/13/2011 5:24 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 5:24 PM
Methane	ND	0.50		%	1	9/13/2011 5:24 PM
Nitrogen	78	0.10		%	1	9/13/2011 5:24 PM
Oxygen	21	0.10		%	1	9/13/2011 5:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
2-Butanone	ND	400	H	ppbv	400	9/23/2011 12:03 AM
2-Hexanone	ND	400	H	ppbv	400	9/23/2011 12:03 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Acetone	1,200	400	H	ppbv	400	9/23/2011 12:03 AM
Benzene	1,500	400	H	ppbv	400	9/23/2011 12:03 AM
Benzyl chloride	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Bromoform	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Bromomethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Carbon disulfide	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Chlorobenzene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Chloroethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Chloroform	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Chloromethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/23/2011 12:03 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 2:22:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-003	**Matrix:**	Air
Client Sample ID:	VA0438		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,300	800	H	ppbv	400	9/23/2011 12:03 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Ethyl acetate	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Ethylbenzene	ND	800	H	ppbv	400	9/23/2011 12:03 AM
Heptane	2,100	400	H	ppbv	400	9/23/2011 12:03 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/23/2011 12:03 AM
m,p-Xylene	640	800	JH	ppbv	400	9/23/2011 12:03 AM
Methylene chloride	1,100	2,000	JH	ppbv	400	9/23/2011 12:03 AM
n-Hexane	1,800	800	H	ppbv	400	9/23/2011 12:03 AM
Naphthalene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
o-Xylene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Propylene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Styrene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Toluene	4,300	400	H	ppbv	400	9/23/2011 12:03 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Trichloroethene	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Vinyl acetate	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Vinyl chloride	ND	400	H	ppbv	400	9/23/2011 12:03 AM
Xylenes, Total	640	1,200	JH	ppbv	400	9/23/2011 12:03 AM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	400	9/23/2011 12:03 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	170,000	94,000		µg/m³	800	9/6/2011 7:29 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 7:29 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 7:29 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	800	9/6/2011 7:29 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 3:10:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-004	**Matrix:**	Air
Client Sample ID:	VA0439		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.22	0.10		%	1	9/13/2011 6:00 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 6:00 PM
Methane	ND	0.50		%	1	9/13/2011 6:00 PM
Nitrogen	79	0.10		%	1	9/13/2011 6:00 PM
Oxygen	20	0.10		%	1	9/13/2011 6:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
2-Butanone	ND	800	H	ppbv	800	9/23/2011 12:50 AM
2-Hexanone	ND	800	H	ppbv	800	9/23/2011 12:50 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Acetone	1,600	800	H	ppbv	800	9/23/2011 12:50 AM
Benzene	5,600	800	H	ppbv	800	9/23/2011 12:50 AM
Benzyl chloride	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Bromoform	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Bromomethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Carbon disulfide	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Chlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Chloroethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Chloroform	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Chloromethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 12:50 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 3:10:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-004	**Matrix:**	Air
Client Sample ID:	VA0439		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	15,000	1,600	H	ppbv	800	9/23/2011 12:50 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Ethyl acetate	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/23/2011 12:50 AM
Heptane	5,200	800	H	ppbv	800	9/23/2011 12:50 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/23/2011 12:50 AM
m,p-Xylene	ND	1,600	H	ppbv	800	9/23/2011 12:50 AM
Methylene chloride	2,000	4,000	JH	ppbv	800	9/23/2011 12:50 AM
n-Hexane	12,000	1,600	H	ppbv	800	9/23/2011 12:50 AM
Naphthalene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
o-Xylene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Propylene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Styrene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Toluene	5,400	800	H	ppbv	800	9/23/2011 12:50 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Trichloroethene	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Vinyl acetate	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Vinyl chloride	ND	800	H	ppbv	800	9/23/2011 12:50 AM
Xylenes, Total	ND	2,400	H	ppbv	800	9/23/2011 12:50 AM
Surr: 4-Bromofluorobenzene	108	70-130	H	%REC	800	9/23/2011 12:50 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	540,000	94,000		µg/m³	800	9/6/2011 8:16 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 8:16 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 8:16 PM
Surr: 4-Bromofluorobenzene	94.8	70-130		%REC	800	9/6/2011 8:16 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-005	**Matrix:**	Air
Client Sample ID:	VA0440		

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	9/14/2011 1:48 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 1:48 PM
Methane	ND	0.50		%	1	9/14/2011 1:48 PM
Nitrogen	79	0.10		%	1	9/14/2011 1:48 PM
Oxygen	20	0.10		%	1	9/14/2011 1:48 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
2-Butanone	ND	800	H	ppbv	800	9/23/2011 1:38 AM
2-Hexanone	ND	800	H	ppbv	800	9/23/2011 1:38 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Acetone	1,500	800	H	ppbv	800	9/23/2011 1:38 AM
Benzene	6,500	800	H	ppbv	800	9/23/2011 1:38 AM
Benzyl chloride	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Bromoform	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Bromomethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Carbon disulfide	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Chlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Chloroethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Chloroform	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Chloromethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 1:38 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 3:26:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-005	**Matrix:**	Air
Client Sample ID:	VA0440		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	31,000	1,600	H	ppbv	800	9/23/2011 1:38 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Ethyl acetate	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/23/2011 1:38 AM
Heptane	14,000	800	H	ppbv	800	9/23/2011 1:38 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/23/2011 1:38 AM
m,p-Xylene	1,100	1,600	JH	ppbv	800	9/23/2011 1:38 AM
Methylene chloride	2,200	4,000	JH	ppbv	800	9/23/2011 1:38 AM
n-Hexane	28,000	1,600	H	ppbv	800	9/23/2011 1:38 AM
Naphthalene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
o-Xylene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Propylene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Styrene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Toluene	8,000	800	H	ppbv	800	9/23/2011 1:38 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Trichloroethene	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Vinyl acetate	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Vinyl chloride	ND	800	H	ppbv	800	9/23/2011 1:38 AM
Xylenes, Total	1,100	2,400	JH	ppbv	800	9/23/2011 1:38 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/23/2011 1:38 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	1,100,000	94,000		µg/m³	800	9/6/2011 9:03 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 9:03 PM
C9-C12 Aliphatic Hydrocarbons	22,000	150,000	J	µg/m³	800	9/6/2011 9:03 PM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	800	9/6/2011 9:03 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-006	**Matrix:**	Air
Client Sample ID:	VA0441		

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	9/14/2011 2:07 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 2:07 PM
Methane	ND	0.50		%	1	9/14/2011 2:07 PM
Nitrogen	83	0.10		%	1	9/14/2011 2:07 PM
Oxygen	12	0.10		%	1	9/14/2011 2:07 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
2-Butanone	31,000	8,000	H	ppbv	8000	9/23/2011 9:24 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Acetone	230,000	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Benzene	120,000	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 11:48:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-006	**Matrix:**	Air
Client Sample ID:	VA0441		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	470,000	16,000	H	ppbv	8000	9/23/2011 9:24 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Ethylbenzene	28,000	16,000	H	ppbv	8000	9/23/2011 9:24 AM
Heptane	380,000	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 9:24 AM
m,p-Xylene	57,000	16,000	H	ppbv	8000	9/23/2011 9:24 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 9:24 AM
n-Hexane	430,000	16,000	H	ppbv	8000	9/23/2011 9:24 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
o-Xylene	16,000	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Toluene	370,000	8,000	H	ppbv	8000	9/23/2011 9:24 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 9:24 AM
Xylenes, Total	73,000	24,000	H	ppbv	8000	9/23/2011 9:24 AM
Surr: 4-Bromofluorobenzene	95.3	70-130	H	%REC	8000	9/23/2011 9:24 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	19,000,000	940,000	H	µg/m³	8000	9/22/2011 6:48 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/22/2011 6:48 PM
C9-C12 Aliphatic Hydrocarbons	1,600,000	1,500,000	H	µg/m³	8000	9/22/2011 6:48 PM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	8000	9/22/2011 6:48 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 12:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-007	**Matrix:**	Air
Client Sample ID:	VA0442		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.2	0.10		%	1	9/14/2011 2:56 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 2:56 PM
Methane	ND	0.50		%	1	9/14/2011 2:56 PM
Nitrogen	84	0.10		%	1	9/14/2011 2:56 PM
Oxygen	12	0.10		%	1	9/14/2011 2:56 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
2-Butanone	27,000	8,000	H	ppbv	8000	9/23/2011 7:03 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Acetone	250,000	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Benzene	120,000	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 12:15:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-007	**Matrix:**	Air
Client Sample ID:	VA0442		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	440,000	16,000	H	ppbv	8000	9/23/2011 7:03 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Ethylbenzene	29,000	16,000	H	ppbv	8000	9/23/2011 7:03 AM
Heptane	390,000	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 7:03 AM
m,p-Xylene	67,000	16,000	H	ppbv	8000	9/23/2011 7:03 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 7:03 AM
n-Hexane	390,000	16,000	H	ppbv	8000	9/23/2011 7:03 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
o-Xylene	18,000	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Toluene	410,000	8,000	H	ppbv	8000	9/23/2011 7:03 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 7:03 AM
Xylenes, Total	85,000	24,000	H	ppbv	8000	9/23/2011 7:03 AM
Surr: 4-Bromofluorobenzene	94.9	70-130	H	%REC	8000	9/23/2011 7:03 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	22,000,000	2,300,000	H	µg/m³	20000	9/23/2011 9:33 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/23/2011 9:33 PM
C9-C12 Aliphatic Hydrocarbons	1,600,000	3,800,000	JH	µg/m³	20000	9/23/2011 9:33 PM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	20000	9/23/2011 9:33 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 2:10:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-008	**Matrix:**	Air
Client Sample ID:	VA0443		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.4	0.10		%	1	9/14/2011 3:17 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 3:17 PM
Methane	ND	0.50		%	1	9/14/2011 3:17 PM
Nitrogen	83	0.10		%	1	9/14/2011 3:17 PM
Oxygen	13	0.10		%	1	9/14/2011 3:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
2-Butanone	21,000	8,000	H	ppbv	8000	9/23/2011 10:09 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Acetone	170,000	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Benzene	78,000	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 2:10:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-008	**Matrix:**	Air
Client Sample ID:	VA0443		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	370,000	16,000	H	ppbv	8000	9/23/2011 10:09 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Ethylbenzene	20,000	16,000	H	ppbv	8000	9/23/2011 10:09 AM
Heptane	310,000	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 10:09 AM
m,p-Xylene	41,000	16,000	H	ppbv	8000	9/23/2011 10:09 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 10:09 AM
n-Hexane	300,000	16,000	H	ppbv	8000	9/23/2011 10:09 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
o-Xylene	12,000	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Toluene	240,000	8,000	H	ppbv	8000	9/23/2011 10:09 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 10:09 AM
Xylenes, Total	53,000	24,000	H	ppbv	8000	9/23/2011 10:09 AM
Surr: 4-Bromofluorobenzene	98.2	70-130	H	%REC	8000	9/23/2011 10:09 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	22,000,000	2,300,000	H	µg/m³	20000	9/23/2011 10:15 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/23/2011 10:15 PM
C9-C12 Aliphatic Hydrocarbons	1,500,000	3,800,000	JH	µg/m³	20000	9/23/2011 10:15 PM
Surr: 4-Bromofluorobenzene	108	70-130	H	%REC	20000	9/23/2011 10:15 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-009	**Matrix:**	Air
Client Sample ID:	VA0444		

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	9/14/2011 3:48 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 3:48 PM
Methane	ND	0.50		%	1	9/14/2011 3:48 PM
Nitrogen	84	0.10		%	1	9/14/2011 3:48 PM
Oxygen	12	0.10		%	1	9/14/2011 3:48 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
2-Butanone	9,400	8,000	H	ppbv	8000	9/23/2011 10:54 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Acetone	49,000	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Benzene	43,000	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 2:38:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-009	**Matrix:**	Air
Client Sample ID:	VA0444		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	210,000	16,000	H	ppbv	8000	9/23/2011 10:54 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Ethylbenzene	11,000	16,000	JH	ppbv	8000	9/23/2011 10:54 AM
Heptane	120,000	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 10:54 AM
m,p-Xylene	18,000	16,000	H	ppbv	8000	9/23/2011 10:54 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 10:54 AM
n-Hexane	210,000	16,000	H	ppbv	8000	9/23/2011 10:54 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
o-Xylene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Toluene	59,000	8,000	H	ppbv	8000	9/23/2011 10:54 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 10:54 AM
Xylenes, Total	18,000	24,000	JH	ppbv	8000	9/23/2011 10:54 AM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	8000	9/23/2011 10:54 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	8,300,000	940,000	H	µg/m³	8000	9/23/2011 12:31 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/23/2011 12:31 AM
C9-C12 Aliphatic Hydrocarbons	1,600,000	1,500,000	H	µg/m³	8000	9/23/2011 12:31 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/23/2011 12:31 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 2:58:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-010	**Matrix:**	Air
Client Sample ID:	VA0445		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.1	0.10		%	1	9/14/2011 4:07 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 4:07 PM
Methane	ND	0.50		%	1	9/14/2011 4:07 PM
Nitrogen	84	0.10		%	1	9/14/2011 4:07 PM
Oxygen	11	0.10		%	1	9/14/2011 4:07 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
2-Butanone	17,000	8,000	H	ppbv	8000	9/23/2011 6:57 PM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Acetone	120,000	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Benzene	120,000	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 2:58:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-010	**Matrix:**	Air
Client Sample ID:	VA0445		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	480,000	16,000	H	ppbv	8000	9/23/2011 6:57 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Ethylbenzene	14,000	16,000	JH	ppbv	8000	9/23/2011 6:57 PM
Heptane	250,000	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 6:57 PM
m,p-Xylene	24,000	16,000	H	ppbv	8000	9/23/2011 6:57 PM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 6:57 PM
n-Hexane	610,000	16,000	H	ppbv	8000	9/23/2011 6:57 PM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
o-Xylene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Propylene	9,800	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Toluene	140,000	8,000	H	ppbv	8000	9/23/2011 6:57 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 6:57 PM
Xylenes, Total	24,000	24,000	H	ppbv	8000	9/23/2011 6:57 PM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	8000	9/23/2011 6:57 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	12,000,000	940,000	H	µg/m³	8000	9/23/2011 1:55 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/23/2011 1:55 AM
C9-C12 Aliphatic Hydrocarbons	1,300,000	1,500,000	JH	µg/m³	8000	9/23/2011 1:55 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/23/2011 1:55 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 8:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-011	**Matrix:**	Air
Client Sample ID:	VA0446		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.6	0.10		%	1	9/14/2011 4:39 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 4:39 PM
Methane	ND	0.50		%	1	9/14/2011 4:39 PM
Nitrogen	84	0.10		%	1	9/14/2011 4:39 PM
Oxygen	11	0.10		%	1	9/14/2011 4:39 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,2,4-Trimethylbenzene	2,200	800	H	ppbv	800	9/23/2011 12:30 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
2-Butanone	1,700	800	H	ppbv	800	9/23/2011 12:30 PM
2-Hexanone	ND	800	H	ppbv	800	9/23/2011 12:30 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Acetone	9,000	800	H	ppbv	800	9/23/2011 12:30 PM
Benzene	13,000	800	H	ppbv	800	9/23/2011 12:30 PM
Benzyl chloride	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Bromoform	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Bromomethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Carbon disulfide	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Chlorobenzene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Chloroethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Chloroform	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Chloromethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 12:30 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 8:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-011	**Matrix:**	Air
Client Sample ID:	VA0446		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	43,000	1,600	H	ppbv	800	9/23/2011 12:30 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Ethyl acetate	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Ethylbenzene	3,600	1,600	H	ppbv	800	9/23/2011 12:30 PM
Heptane	29,000	800	H	ppbv	800	9/23/2011 12:30 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/23/2011 12:30 PM
m,p-Xylene	5,300	1,600	H	ppbv	800	9/23/2011 12:30 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/23/2011 12:30 PM
n-Hexane	45,000	1,600	H	ppbv	800	9/23/2011 12:30 PM
Naphthalene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
o-Xylene	1,900	800	H	ppbv	800	9/23/2011 12:30 PM
Propylene	980	800	H	ppbv	800	9/23/2011 12:30 PM
Styrene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Toluene	22,000	800	H	ppbv	800	9/23/2011 12:30 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Trichloroethene	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Vinyl acetate	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Vinyl chloride	ND	800	H	ppbv	800	9/23/2011 12:30 PM
Xylenes, Total	7,200	2,400	H	ppbv	800	9/23/2011 12:30 PM
Surr: 4-Bromofluorobenzene	98.7	70-130	H	%REC	800	9/23/2011 12:30 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	890,000	94,000		µg/m³	800	9/7/2011 1:47 AM
C9-C10 Aromatic Hydrocarbons	91,000	110,000	J	µg/m³	800	9/7/2011 1:47 AM
C9-C12 Aliphatic Hydrocarbons	350,000	150,000		µg/m³	800	9/7/2011 1:47 AM
Surr: 4-Bromofluorobenzene	91.3	70-130		%REC	800	9/7/2011 1:47 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 8:49:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-012	**Matrix:**	Air
Client Sample ID:	VA0447		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.2	0.10		%	1	9/14/2011 5:06 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 5:06 PM
Methane	ND	0.50		%	1	9/14/2011 5:06 PM
Nitrogen	83	0.10		%	1	9/14/2011 5:06 PM
Oxygen	14	0.10		%	1	9/14/2011 5:06 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,2,4-Trimethylbenzene	1,100	800	H	ppbv	800	9/23/2011 1:19 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
2-Butanone	ND	800	H	ppbv	800	9/23/2011 1:19 PM
2-Hexanone	ND	800	H	ppbv	800	9/23/2011 1:19 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Acetone	1,300	800	H	ppbv	800	9/23/2011 1:19 PM
Benzene	2,200	800	H	ppbv	800	9/23/2011 1:19 PM
Benzyl chloride	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Bromoform	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Bromomethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Carbon disulfide	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Chlorobenzene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Chloroethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Chloroform	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Chloromethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 1:19 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 8:49:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-012	**Matrix:**	Air
Client Sample ID:	VA0447		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,400	1,600	H	ppbv	800	9/23/2011 1:19 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Ethyl acetate	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Ethylbenzene	1,200	1,600	JH	ppbv	800	9/23/2011 1:19 PM
Heptane	5,100	800	H	ppbv	800	9/23/2011 1:19 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/23/2011 1:19 PM
m,p-Xylene	2,100	1,600	H	ppbv	800	9/23/2011 1:19 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/23/2011 1:19 PM
n-Hexane	7,400	1,600	H	ppbv	800	9/23/2011 1:19 PM
Naphthalene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
o-Xylene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Propylene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Styrene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Toluene	4,800	800	H	ppbv	800	9/23/2011 1:19 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Trichloroethene	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Vinyl acetate	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Vinyl chloride	ND	800	H	ppbv	800	9/23/2011 1:19 PM
Xylenes, Total	2,100	2,400	JH	ppbv	800	9/23/2011 1:19 PM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	800	9/23/2011 1:19 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	230,000	94,000		µg/m³	800	9/7/2011 2:34 AM
C9-C10 Aromatic Hydrocarbons	49,000	110,000	J	µg/m³	800	9/7/2011 2:34 AM
C9-C12 Aliphatic Hydrocarbons	140,000	150,000	J	µg/m³	800	9/7/2011 2:34 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	800	9/7/2011 2:34 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 9:10:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-013	**Matrix:**	Air
Client Sample ID:	VA0448		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.1	0.10		%	1	9/14/2011 5:31 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 5:31 PM
Methane	ND	0.50		%	1	9/14/2011 5:31 PM
Nitrogen	82	0.10		%	1	9/14/2011 5:31 PM
Oxygen	14	0.10		%	1	9/14/2011 5:31 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
2-Butanone	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Acetone	33,000	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Benzene	41,000	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 9:10:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-013	**Matrix:**	Air
Client Sample ID:	VA0448		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	190,000	16,000	H	ppbv	8000	9/23/2011 7:40 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Ethylbenzene	ND	16,000	H	ppbv	8000	9/23/2011 7:40 PM
Heptane	83,000	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 7:40 PM
m,p-Xylene	ND	16,000	H	ppbv	8000	9/23/2011 7:40 PM
Methylene chloride	35,000	40,000	JH	ppbv	8000	9/23/2011 7:40 PM
n-Hexane	200,000	16,000	H	ppbv	8000	9/23/2011 7:40 PM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
o-Xylene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Toluene	33,000	8,000	H	ppbv	8000	9/23/2011 7:40 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 7:40 PM
Xylenes, Total	ND	24,000	H	ppbv	8000	9/23/2011 7:40 PM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	8000	9/23/2011 7:40 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,400,000	940,000	H	µg/m³	8000	9/23/2011 2:37 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/23/2011 2:37 AM
C9-C12 Aliphatic Hydrocarbons	830,000	1,500,000	JH	µg/m³	8000	9/23/2011 2:37 AM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	8000	9/23/2011 2:37 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 9:26:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-014	**Matrix:**	Air
Client Sample ID:	VA0449		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	3.2	0.10		%	1	9/14/2011 5:55 PM
Carbon Monoxide	ND	0.10		%	1	9/14/2011 5:55 PM
Methane	ND	0.50		%	1	9/14/2011 5:55 PM
Nitrogen	83	0.10		%	1	9/14/2011 5:55 PM
Oxygen	13	0.10		%	1	9/14/2011 5:55 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
2-Butanone	9,300	8,000	H	ppbv	8000	9/23/2011 8:23 PM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Acetone	38,000	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Benzene	70,000	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 9:26:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-014	**Matrix:**	Air
Client Sample ID:	VA0449		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	340,000	16,000	H	ppbv	8000	9/23/2011 8:23 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Ethylbenzene	10,000	16,000	JH	ppbv	8000	9/23/2011 8:23 PM
Heptane	150,000	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 8:23 PM
m,p-Xylene	13,000	16,000	JH	ppbv	8000	9/23/2011 8:23 PM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 8:23 PM
n-Hexane	360,000	16,000	H	ppbv	8000	9/23/2011 8:23 PM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
o-Xylene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Toluene	61,000	8,000	H	ppbv	8000	9/23/2011 8:23 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 8:23 PM
Xylenes, Total	13,000	24,000	JH	ppbv	8000	9/23/2011 8:23 PM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/23/2011 8:23 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	7,700,000	940,000	H	µg/m³	8000	9/23/2011 3:19 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/23/2011 3:19 AM
C9-C12 Aliphatic Hydrocarbons	1,100,000	1,500,000	JH	µg/m³	8000	9/23/2011 3:19 AM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	8000	9/23/2011 3:19 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 9:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-015	**Matrix:**	Air
Client Sample ID:	VA0450		

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	9/15/2011 2:50 PM
Carbon Monoxide	ND	0.10		%	1	9/15/2011 2:50 PM
Methane	ND	0.50		%	1	9/15/2011 2:50 PM
Nitrogen	83	0.10		%	1	9/15/2011 2:50 PM
Oxygen	14	0.10		%	1	9/15/2011 2:50 PM
Volatile Organic Compounds		**Method: TO-15**				**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
2-Butanone	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Acetone	12,000	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Benzene	17,000	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/17/2011 9:40:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-015	**Matrix:**	Air
Client Sample ID:	VA0450		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	94,000	16,000	H	ppbv	8000	9/23/2011 9:52 PM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Ethylbenzene	ND	16,000	H	ppbv	8000	9/23/2011 9:52 PM
Heptane	48,000	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 9:52 PM
m,p-Xylene	ND	16,000	H	ppbv	8000	9/23/2011 9:52 PM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 9:52 PM
n-Hexane	120,000	16,000	H	ppbv	8000	9/23/2011 9:52 PM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
o-Xylene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Toluene	20,000	8,000	H	ppbv	8000	9/23/2011 9:52 PM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 9:52 PM
Xylenes, Total	ND	24,000	H	ppbv	8000	9/23/2011 9:52 PM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	8000	9/23/2011 9:52 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	4,700,000	940,000	H	µg/m³	8000	9/23/2011 4:02 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/23/2011 4:02 AM
C9-C12 Aliphatic Hydrocarbons	560,000	1,500,000	JH	µg/m³	8000	9/23/2011 4:02 AM
Surr: 4-Bromofluorobenzene	103	70-130	H	%REC	8000	9/23/2011 4:02 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/8/2011 9:43:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-016	**Matrix:**	Air
Client Sample ID:	VA0489		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.24	0.10		%	1	9/2/2011 2:55 PM
Carbon Monoxide	ND	0.10		%	1	9/2/2011 2:55 PM
Methane	ND	0.50		%	1	9/2/2011 2:55 PM
Nitrogen	78	0.10		%	1	9/2/2011 2:55 PM
Oxygen	20	0.10		%	1	9/2/2011 2:55 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,3-Butadiene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
2-Butanone	ND	800	H	ppbv	800	10/7/2011 4:00 PM
2-Hexanone	ND	800	H	ppbv	800	10/7/2011 4:00 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Acetone	1,100	800	H	ppbv	800	10/7/2011 4:00 PM
Benzene	4,300	800	H	ppbv	800	10/7/2011 4:00 PM
Benzyl chloride	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Bromodichloromethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Bromoform	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Bromomethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Carbon disulfide	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Carbon tetrachloride	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Chlorobenzene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Chlorodibromomethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Chloroethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Chloroform	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Chloromethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	10/7/2011 4:00 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/8/2011 9:43:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-016	**Matrix:**	Air
Client Sample ID:	VA0489		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	5,900	1,600	H	ppbv	800	10/7/2011 4:00 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Ethyl acetate	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Ethylbenzene	ND	1,600	H	ppbv	800	10/7/2011 4:00 PM
Heptane	3,600	800	H	ppbv	800	10/7/2011 4:00 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	10/7/2011 4:00 PM
m,p-Xylene	ND	1,600	H	ppbv	800	10/7/2011 4:00 PM
Methylene chloride	12,000	4,000	H	ppbv	800	10/7/2011 4:00 PM
n-Hexane	8,200	1,600	H	ppbv	800	10/7/2011 4:00 PM
Naphthalene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
o-Xylene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Propylene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Styrene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Tetrachloroethene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Tetrahydrofuran	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Toluene	5,400	800	H	ppbv	800	10/7/2011 4:00 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Trichloroethene	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Vinyl acetate	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Vinyl chloride	ND	800	H	ppbv	800	10/7/2011 4:00 PM
Xylenes, Total	ND	2,400	H	ppbv	800	10/7/2011 4:00 PM
Surr: 4-Bromofluorobenzene	108	70-130	H	%REC	800	10/7/2011 4:00 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	390,000	94,000		µg/m³	800	8/30/2011 11:33 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/30/2011 11:33 PM
C9-C12 Aliphatic Hydrocarbons	25,000	150,000	J	µg/m³	800	8/30/2011 11:33 PM
Surr: 4-Bromofluorobenzene	93.1	70-130		%REC	800	8/30/2011 11:33 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/8/2011 10:35:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-017	**Matrix:**	Air
Client Sample ID:	VA0490		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.24	0.10		%	1	9/2/2011 3:53 PM
Carbon Monoxide	ND	0.10		%	1	9/2/2011 3:53 PM
Methane	ND	0.50		%	1	9/2/2011 3:53 PM
Nitrogen	79	0.10		%	1	9/2/2011 3:53 PM
Oxygen	20	0.10		%	1	9/2/2011 3:53 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,3-Butadiene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
2-Butanone	ND	800	H	ppbv	800	10/6/2011 9:11 PM
2-Hexanone	ND	800	H	ppbv	800	10/6/2011 9:11 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Acetone	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Benzene	2,500	800	H	ppbv	800	10/6/2011 9:11 PM
Benzyl chloride	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Bromodichloromethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Bromoform	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Bromomethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Carbon disulfide	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Carbon tetrachloride	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Chlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Chlorodibromomethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Chloroethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Chloroform	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Chloromethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	10/6/2011 9:11 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/8/2011 10:35:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-017	**Matrix:**	Air
Client Sample ID:	VA0490		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	3,900	1,600	H	ppbv	800	10/6/2011 9:11 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Ethyl acetate	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Ethylbenzene	ND	1,600	H	ppbv	800	10/6/2011 9:11 PM
Heptane	3,400	800	H	ppbv	800	10/6/2011 9:11 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	10/6/2011 9:11 PM
m,p-Xylene	ND	1,600	H	ppbv	800	10/6/2011 9:11 PM
Methylene chloride	ND	4,000	H	ppbv	800	10/6/2011 9:11 PM
n-Hexane	3,800	1,600	H	ppbv	800	10/6/2011 9:11 PM
Naphthalene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
o-Xylene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Propylene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Styrene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Tetrachloroethene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Tetrahydrofuran	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Toluene	4,200	800	H	ppbv	800	10/6/2011 9:11 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Trichloroethene	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Vinyl acetate	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Vinyl chloride	ND	800	H	ppbv	800	10/6/2011 9:11 PM
Xylenes, Total	ND	2,400	H	ppbv	800	10/6/2011 9:11 PM
Surr: 4-Bromofluorobenzene	117	70-130	H	%REC	800	10/6/2011 9:11 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	220,000	94,000		µg/m³	800	8/31/2011 1:58 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/31/2011 1:58 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/31/2011 1:58 PM
Surr: 4-Bromofluorobenzene	92.5	70-130		%REC	800	8/31/2011 1:58 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/8/2011 1:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-018	**Matrix:**	Air
Client Sample ID:	VA0491		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.21	0.10		%	1	9/2/2011 4:24 PM
Carbon Monoxide	ND	0.10		%	1	9/2/2011 4:24 PM
Methane	ND	0.50		%	1	9/2/2011 4:24 PM
Nitrogen	80	0.10		%	1	9/2/2011 4:24 PM
Oxygen	19	0.10		%	1	9/2/2011 4:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,3-Butadiene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
2-Butanone	ND	800	H	ppbv	800	10/6/2011 9:56 PM
2-Hexanone	ND	800	H	ppbv	800	10/6/2011 9:56 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Acetone	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Benzene	1,700	800	H	ppbv	800	10/6/2011 9:56 PM
Benzyl chloride	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Bromodichloromethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Bromoform	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Bromomethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Carbon disulfide	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Carbon tetrachloride	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Chlorobenzene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Chlorodibromomethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Chloroethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Chloroform	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Chloromethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	10/6/2011 9:56 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/8/2011 1:02:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-018	**Matrix:**	Air
Client Sample ID:	VA0491		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,700	1,600	H	ppbv	800	10/6/2011 9:56 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Ethyl acetate	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Ethylbenzene	ND	1,600	H	ppbv	800	10/6/2011 9:56 PM
Heptane	2,200	800	H	ppbv	800	10/6/2011 9:56 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	10/6/2011 9:56 PM
m,p-Xylene	ND	1,600	H	ppbv	800	10/6/2011 9:56 PM
Methylene chloride	5,000	4,000	H	ppbv	800	10/6/2011 9:56 PM
n-Hexane	2,900	1,600	H	ppbv	800	10/6/2011 9:56 PM
Naphthalene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
o-Xylene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Propylene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Styrene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Tetrachloroethene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Tetrahydrofuran	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Toluene	3,100	800	H	ppbv	800	10/6/2011 9:56 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Trichloroethene	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Vinyl acetate	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Vinyl chloride	ND	800	H	ppbv	800	10/6/2011 9:56 PM
Xylenes, Total	ND	2,400	H	ppbv	800	10/6/2011 9:56 PM
Surr: 4-Bromofluorobenzene	115	70-130	H	%REC	800	10/6/2011 9:56 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	190,000	94,000		µg/m³	800	8/31/2011 2:43 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/31/2011 2:43 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/31/2011 2:43 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	800	8/31/2011 2:43 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 9:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-019	**Matrix:**	Air
Client Sample ID:	VA0503		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.23	0.10		%	1	9/7/2011 1:35 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 1:35 PM
Methane	ND	0.50		%	1	9/7/2011 1:35 PM
Nitrogen	79	0.10		%	1	9/7/2011 1:35 PM
Oxygen	20	0.10		%	1	9/7/2011 1:35 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
2-Butanone	ND	40	H	ppbv	40	9/21/2011 7:16 PM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 7:16 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Acetone	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Benzene	560	40	H	ppbv	40	9/21/2011 7:16 PM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Bromoform	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Bromomethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Chloroform	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 7:16 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 9:31:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-019	**Matrix:**	Air
Client Sample ID:	VA0503		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	690	80	H	ppbv	40	9/21/2011 7:16 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Ethylbenzene	51	80	JH	ppbv	40	9/21/2011 7:16 PM
Heptane	500	40	H	ppbv	40	9/21/2011 7:16 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 7:16 PM
m,p-Xylene	110	80	H	ppbv	40	9/21/2011 7:16 PM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 7:16 PM
n-Hexane	510	80	H	ppbv	40	9/21/2011 7:16 PM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
o-Xylene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Propylene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Styrene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Toluene	1,400	40	H	ppbv	40	9/21/2011 7:16 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 7:16 PM
Xylenes, Total	110	120	JH	ppbv	40	9/21/2011 7:16 PM
Surr: 4-Bromofluorobenzene	104	70-130	H	%REC	40	9/21/2011 7:16 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	38,000	4,700		µg/m³	40	9/1/2011 5:52 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	9/1/2011 5:52 PM
C9-C12 Aliphatic Hydrocarbons	5,100	7,600	J	µg/m³	40	9/1/2011 5:52 PM
Surr: 4-Bromofluorobenzene	95.1	70-130		%REC	40	9/1/2011 5:52 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 10:01:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-020	**Matrix:**	Air
Client Sample ID:	VA0504		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.32	0.10		%	1	9/7/2011 1:57 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 1:57 PM
Methane	ND	0.50		%	1	9/7/2011 1:57 PM
Nitrogen	79	0.10		%	1	9/7/2011 1:57 PM
Oxygen	21	0.10		%	1	9/7/2011 1:57 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
2-Butanone	ND	800	H	ppbv	800	9/21/2011 8:50 PM
2-Hexanone	ND	800	H	ppbv	800	9/21/2011 8:50 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Acetone	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Benzene	1,600	800	H	ppbv	800	9/21/2011 8:50 PM
Benzyl chloride	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Bromoform	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Bromomethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Carbon disulfide	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Chlorobenzene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Chloroethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Chloroform	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Chloromethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 8:50 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 10:01:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-020	**Matrix:**	Air
Client Sample ID:	VA0504		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,100	1,600	H	ppbv	800	9/21/2011 8:50 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Ethyl acetate	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/21/2011 8:50 PM
Heptane	1,400	800	H	ppbv	800	9/21/2011 8:50 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/21/2011 8:50 PM
m,p-Xylene	ND	1,600	H	ppbv	800	9/21/2011 8:50 PM
Methylene chloride	ND	4,000	H	ppbv	800	9/21/2011 8:50 PM
n-Hexane	1,700	1,600	H	ppbv	800	9/21/2011 8:50 PM
Naphthalene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
o-Xylene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Propylene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Styrene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Toluene	3,800	800	H	ppbv	800	9/21/2011 8:50 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Trichloroethene	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Vinyl acetate	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Vinyl chloride	ND	800	H	ppbv	800	9/21/2011 8:50 PM
Xylenes, Total	ND	2,400	H	ppbv	800	9/21/2011 8:50 PM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/21/2011 8:50 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	94,000		µg/m³	800	8/31/2011 8:38 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/31/2011 8:38 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/31/2011 8:38 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	800	8/31/2011 8:38 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 10:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-021	**Matrix:**	Air
Client Sample ID:	VA0505		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.24	0.10		%	1	9/7/2011 2:18 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 2:18 PM
Methane	ND	0.50		%	1	9/7/2011 2:18 PM
Nitrogen	80	0.10		%	1	9/7/2011 2:18 PM
Oxygen	20	0.10		%	1	9/7/2011 2:18 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
2-Butanone	ND	40	H	ppbv	40	9/21/2011 9:33 PM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 9:33 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Acetone	44	40	H	ppbv	40	9/21/2011 9:33 PM
Benzene	530	40	H	ppbv	40	9/21/2011 9:33 PM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Bromoform	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Bromomethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Chloroform	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 9:33 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 10:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-021	**Matrix:**	Air
Client Sample ID:	VA0505		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	600	80	H	ppbv	40	9/21/2011 9:33 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Ethylbenzene	46	80	JH	ppbv	40	9/21/2011 9:33 PM
Heptane	430	40	H	ppbv	40	9/21/2011 9:33 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 9:33 PM
m,p-Xylene	100	80	H	ppbv	40	9/21/2011 9:33 PM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 9:33 PM
n-Hexane	480	80	H	ppbv	40	9/21/2011 9:33 PM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
o-Xylene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Propylene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Styrene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Toluene	1,200	40	H	ppbv	40	9/21/2011 9:33 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 9:33 PM
Xylenes, Total	100	120	JH	ppbv	40	9/21/2011 9:33 PM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	40	9/21/2011 9:33 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	30,000	4,700		µg/m³	40	9/1/2011 6:34 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	9/1/2011 6:34 PM
C9-C12 Aliphatic Hydrocarbons	5,400	7,600	J	µg/m³	40	9/1/2011 6:34 PM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	40	9/1/2011 6:34 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 10:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-022	**Matrix:**	Air
Client Sample ID:	VA0506		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.22	0.10		%	1	9/7/2011 2:41 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 2:41 PM
Methane	ND	0.50		%	1	9/7/2011 2:41 PM
Nitrogen	80	0.10		%	1	9/7/2011 2:41 PM
Oxygen	20	0.10		%	1	9/7/2011 2:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
2-Butanone	ND	40	H	ppbv	40	9/21/2011 10:17 PM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 10:17 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Acetone	42	40	H	ppbv	40	9/21/2011 10:17 PM
Benzene	590	40	H	ppbv	40	9/21/2011 10:17 PM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Bromoform	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Bromomethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Chloroform	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 10:17 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 10:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-022	**Matrix:**	Air
Client Sample ID:	VA0506		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	770	80	H	ppbv	40	9/21/2011 10:17 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Ethylbenzene	58	80	JH	ppbv	40	9/21/2011 10:17 PM
Heptane	560	40	H	ppbv	40	9/21/2011 10:17 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 10:17 PM
m,p-Xylene	120	80	H	ppbv	40	9/21/2011 10:17 PM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 10:17 PM
n-Hexane	540	80	H	ppbv	40	9/21/2011 10:17 PM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
o-Xylene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Propylene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Styrene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Toluene	1,500	40	H	ppbv	40	9/21/2011 10:17 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 10:17 PM
Xylenes, Total	120	120	H	ppbv	40	9/21/2011 10:17 PM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	40	9/21/2011 10:17 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	33,000	4,700		µg/m³	40	9/1/2011 7:17 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	9/1/2011 7:17 PM
C9-C12 Aliphatic Hydrocarbons	6,400	7,600	J	µg/m³	40	9/1/2011 7:17 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	40	9/1/2011 7:17 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 1:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-023	**Matrix:**	Air
Client Sample ID:	VA0507		

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	9/7/2011 3:01 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 3:01 PM
Methane	ND	0.50		%	1	9/7/2011 3:01 PM
Nitrogen	79	0.10		%	1	9/7/2011 3:01 PM
Oxygen	20	0.10		%	1	9/7/2011 3:01 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
2-Butanone	40	40	H	ppbv	40	9/21/2011 11:02 PM
2-Hexanone	ND	40	H	ppbv	40	9/21/2011 11:02 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Acetone	48	40	H	ppbv	40	9/21/2011 11:02 PM
Benzene	560	40	H	ppbv	40	9/21/2011 11:02 PM
Benzyl chloride	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Bromoform	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Bromomethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Carbon disulfide	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Chlorobenzene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Chloroethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Chloroform	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Chloromethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 11:02 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 1:04:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-023	**Matrix:**	Air
Client Sample ID:	VA0507		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	770	80	H	ppbv	40	9/21/2011 11:02 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Ethyl acetate	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Ethylbenzene	57	80	JH	ppbv	40	9/21/2011 11:02 PM
Heptane	570	40	H	ppbv	40	9/21/2011 11:02 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/21/2011 11:02 PM
m,p-Xylene	130	80	H	ppbv	40	9/21/2011 11:02 PM
Methylene chloride	ND	200	H	ppbv	40	9/21/2011 11:02 PM
n-Hexane	550	80	H	ppbv	40	9/21/2011 11:02 PM
Naphthalene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
o-Xylene	42	40	H	ppbv	40	9/21/2011 11:02 PM
Propylene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Styrene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Toluene	1,500	40	H	ppbv	40	9/21/2011 11:02 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Trichloroethene	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Vinyl acetate	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Vinyl chloride	ND	40	H	ppbv	40	9/21/2011 11:02 PM
Xylenes, Total	170	120	H	ppbv	40	9/21/2011 11:02 PM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	40	9/21/2011 11:02 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	35,000	4,700		µg/m³	40	9/1/2011 8:42 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	9/1/2011 8:42 PM
C9-C12 Aliphatic Hydrocarbons	7,800	7,600		µg/m³	40	9/1/2011 8:42 PM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	40	9/1/2011 8:42 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 1:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-024	**Matrix:**	Air
Client Sample ID:	VA0508		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.22	0.10		%	1	9/7/2011 3:20 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 3:20 PM
Methane	ND	0.50		%	1	9/7/2011 3:20 PM
Nitrogen	79	0.10		%	1	9/7/2011 3:20 PM
Oxygen	20	0.10		%	1	9/7/2011 3:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
2-Butanone	ND	800	H	ppbv	800	9/21/2011 11:49 PM
2-Hexanone	ND	800	H	ppbv	800	9/21/2011 11:49 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Acetone	1,200	800	H	ppbv	800	9/21/2011 11:49 PM
Benzene	1,700	800	H	ppbv	800	9/21/2011 11:49 PM
Benzyl chloride	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Bromoform	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Bromomethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Carbon disulfide	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Chlorobenzene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Chloroethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Chloroform	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Chloromethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 11:49 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 1:42:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-024	**Matrix:**	Air
Client Sample ID:	VA0508		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	23,000	1,600	H	ppbv	800	9/21/2011 11:49 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Ethyl acetate	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/21/2011 11:49 PM
Heptane	2,400	800	H	ppbv	800	9/21/2011 11:49 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/21/2011 11:49 PM
m,p-Xylene	ND	1,600	H	ppbv	800	9/21/2011 11:49 PM
Methylene chloride	2,700	4,000	JH	ppbv	800	9/21/2011 11:49 PM
n-Hexane	23,000	1,600	H	ppbv	800	9/21/2011 11:49 PM
Naphthalene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
o-Xylene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Propylene	11,000	800	H	ppbv	800	9/21/2011 11:49 PM
Styrene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Toluene	4,400	800	H	ppbv	800	9/21/2011 11:49 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Trichloroethene	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Vinyl acetate	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Vinyl chloride	ND	800	H	ppbv	800	9/21/2011 11:49 PM
Xylenes, Total	ND	2,400	H	ppbv	800	9/21/2011 11:49 PM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	800	9/21/2011 11:49 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,000,000	940,000		µg/m³	8000	9/1/2011 2:59 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	9/1/2011 2:59 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	9/1/2011 2:59 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	8000	9/1/2011 2:59 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 2:36:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-025	**Matrix:**	Air
Client Sample ID:	VA0509		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.40	0.10		%	1	9/7/2011 3:41 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 3:41 PM
Methane	ND	0.50		%	1	9/7/2011 3:41 PM
Nitrogen	81	0.10		%	1	9/7/2011 3:41 PM
Oxygen	18	0.10		%	1	9/7/2011 3:41 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
2-Butanone	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Acetone	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Benzene	17,000	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Bromoform	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Chloroform	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/9/2011 2:36:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-025	**Matrix:**	Air
Client Sample ID:	VA0509		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	84,000	16,000	H	ppbv	8000	9/22/2011 8:20 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Ethylbenzene	ND	16,000	H	ppbv	8000	9/22/2011 8:20 AM
Heptane	23,000	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/22/2011 8:20 AM
m,p-Xylene	ND	16,000	H	ppbv	8000	9/22/2011 8:20 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/22/2011 8:20 AM
n-Hexane	98,000	16,000	H	ppbv	8000	9/22/2011 8:20 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
o-Xylene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Propylene	19,000	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Styrene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Toluene	39,000	8,000	H	ppbv	8000	9/22/2011 8:20 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/22/2011 8:20 AM
Xylenes, Total	ND	24,000	H	ppbv	8000	9/22/2011 8:20 AM
Surr: 4-Bromofluorobenzene	114	70-130	H	%REC	8000	9/22/2011 8:20 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	27,000,000	2,300,000	H	µg/m³	20000	9/22/2011 12:48 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000	H	µg/m³	20000	9/22/2011 12:48 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000	H	µg/m³	20000	9/22/2011 12:48 PM
Surr: 4-Bromofluorobenzene	99.3	70-130	H	%REC	20000	9/22/2011 12:48 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/10/2011 11:12:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-026	**Matrix:**	Air
Client Sample ID:	VA0510		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.29	0.10		%	1	9/7/2011 6:20 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 6:20 PM
Methane	ND	0.50		%	1	9/7/2011 6:20 PM
Nitrogen	78	0.10		%	1	9/7/2011 6:20 PM
Oxygen	21	0.10		%	1	9/7/2011 6:20 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
2-Butanone	49	40	H	ppbv	40	9/22/2011 1:05 PM
2-Hexanone	ND	40	H	ppbv	40	9/22/2011 1:05 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Acetone	59	40	H	ppbv	40	9/22/2011 1:05 PM
Benzene	550	40	H	ppbv	40	9/22/2011 1:05 PM
Benzyl chloride	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Bromoform	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Bromomethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Carbon disulfide	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Chlorobenzene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Chloroethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Chloroform	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Chloromethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/22/2011 1:05 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/10/2011 11:12:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-026	**Matrix:**	Air
Client Sample ID:	VA0510		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	860	80	H	ppbv	40	9/22/2011 1:05 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Ethyl acetate	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Ethylbenzene	56	80	JH	ppbv	40	9/22/2011 1:05 PM
Heptane	520	40	H	ppbv	40	9/22/2011 1:05 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/22/2011 1:05 PM
m,p-Xylene	120	80	H	ppbv	40	9/22/2011 1:05 PM
Methylene chloride	ND	200	H	ppbv	40	9/22/2011 1:05 PM
n-Hexane	570	80	H	ppbv	40	9/22/2011 1:05 PM
Naphthalene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
o-Xylene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Propylene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Styrene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Toluene	1,500	40	H	ppbv	40	9/22/2011 1:05 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Trichloroethene	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Vinyl acetate	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Vinyl chloride	ND	40	H	ppbv	40	9/22/2011 1:05 PM
Xylenes, Total	120	120	H	ppbv	40	9/22/2011 1:05 PM
Surr: 4-Bromofluorobenzene	97.0	70-130	H	%REC	40	9/22/2011 1:05 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	170,000	94,000		µg/m³	800	9/1/2011 1:13 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/1/2011 1:13 AM
C9-C12 Aliphatic Hydrocarbons	26,000	150,000	J	µg/m³	800	9/1/2011 1:13 AM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	800	9/1/2011 1:13 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/10/2011 11:53:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-027	**Matrix:**	Air
Client Sample ID:	VA0511		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.39	0.10		%	1	9/7/2011 4:00 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 4:00 PM
Methane	ND	0.50		%	1	9/7/2011 4:00 PM
Nitrogen	79	0.10		%	1	9/7/2011 4:00 PM
Oxygen	20	0.10		%	1	9/7/2011 4:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
2-Butanone	ND	800	H	ppbv	800	9/22/2011 2:11 AM
2-Hexanone	ND	800	H	ppbv	800	9/22/2011 2:11 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Acetone	2,000	800	H	ppbv	800	9/22/2011 2:11 AM
Benzene	2,200	800	H	ppbv	800	9/22/2011 2:11 AM
Benzyl chloride	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Bromoform	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Bromomethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Carbon disulfide	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Chlorobenzene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Chloroethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Chloroform	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Chloromethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/22/2011 2:11 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/10/2011 11:53:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-027	**Matrix:**	Air
Client Sample ID:	VA0511		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,200	1,600	JH	ppbv	800	9/22/2011 2:11 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Ethyl acetate	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/22/2011 2:11 AM
Heptane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/22/2011 2:11 AM
m,p-Xylene	ND	1,600	H	ppbv	800	9/22/2011 2:11 AM
Methylene chloride	5,800	4,000	H	ppbv	800	9/22/2011 2:11 AM
n-Hexane	2,100	1,600	H	ppbv	800	9/22/2011 2:11 AM
Naphthalene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
o-Xylene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Propylene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Styrene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Toluene	1,900	800	H	ppbv	800	9/22/2011 2:11 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Trichloroethene	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Vinyl acetate	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Vinyl chloride	ND	800	H	ppbv	800	9/22/2011 2:11 AM
Xylenes, Total	ND	2,400	H	ppbv	800	9/22/2011 2:11 AM
Surr: 4-Bromofluorobenzene	108	70-130	H	%REC	800	9/22/2011 2:11 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	170,000	94,000		µg/m³	800	9/1/2011 1:59 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/1/2011 1:59 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/1/2011 1:59 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	800	9/1/2011 1:59 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/10/2011 3:31:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-028	**Matrix:**	Air
Client Sample ID:	VA0512		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.29	0.10		%	1	9/7/2011 4:24 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 4:24 PM
Methane	ND	0.50		%	1	9/7/2011 4:24 PM
Nitrogen	81	0.10		%	1	9/7/2011 4:24 PM
Oxygen	19	0.10		%	1	9/7/2011 4:24 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 3:02 AM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 3:02 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Acetone	780	400	H	ppbv	400	9/22/2011 3:02 AM
Benzene	950	400	H	ppbv	400	9/22/2011 3:02 AM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Bromoform	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Chloroform	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 3:02 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/10/2011 3:31:00 PM
Project:	Kirtland AFB		
Lab ID:	1108899-028	**Matrix:**	Air
Client Sample ID:	VA0512		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,100	800	H	ppbv	400	9/22/2011 3:02 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 3:02 AM
Heptane	580	400	H	ppbv	400	9/22/2011 3:02 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 3:02 AM
m,p-Xylene	410	800	JH	ppbv	400	9/22/2011 3:02 AM
Methylene chloride	1,200	2,000	JH	ppbv	400	9/22/2011 3:02 AM
n-Hexane	900	800	H	ppbv	400	9/22/2011 3:02 AM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Propylene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Styrene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Toluene	2,000	400	H	ppbv	400	9/22/2011 3:02 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 3:02 AM
Xylenes, Total	410	1,200	JH	ppbv	400	9/22/2011 3:02 AM
Surr: 4-Bromofluorobenzene	108	70-130	H	%REC	400	9/22/2011 3:02 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	94,000		µg/m³	800	9/1/2011 3:30 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/1/2011 3:30 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/1/2011 3:30 AM
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	800	9/1/2011 3:30 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/11/2011 9:22:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-029	**Matrix:**	Air
Client Sample ID:	VA0513		

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	9/7/2011 6:43 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 6:43 PM
Methane	ND	0.50		%	1	9/7/2011 6:43 PM
Nitrogen	79	0.10		%	1	9/7/2011 6:43 PM
Oxygen	20	0.10		%	1	9/7/2011 6:43 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,3-Butadiene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
2-Butanone	ND	800	H	ppbv	800	9/22/2011 3:52 AM
2-Hexanone	ND	800	H	ppbv	800	9/22/2011 3:52 AM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Acetone	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Benzene	5,900	800	H	ppbv	800	9/22/2011 3:52 AM
Benzyl chloride	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Bromodichloromethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Bromoform	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Bromomethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Carbon disulfide	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Carbon tetrachloride	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Chlorobenzene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Chlorodibromomethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Chloroethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Chloroform	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Chloromethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/22/2011 3:52 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/11/2011 9:22:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-029	**Matrix:**	Air
Client Sample ID:	VA0513		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,000	1,600	H	ppbv	800	9/22/2011 3:52 AM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Ethyl acetate	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Ethylbenzene	ND	1,600	H	ppbv	800	9/22/2011 3:52 AM
Heptane	1,700	800	H	ppbv	800	9/22/2011 3:52 AM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/22/2011 3:52 AM
m,p-Xylene	ND	1,600	H	ppbv	800	9/22/2011 3:52 AM
Methylene chloride	ND	4,000	H	ppbv	800	9/22/2011 3:52 AM
n-Hexane	4,400	1,600	H	ppbv	800	9/22/2011 3:52 AM
Naphthalene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
o-Xylene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Propylene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Styrene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Tetrachloroethene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Tetrahydrofuran	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Toluene	10,000	800	H	ppbv	800	9/22/2011 3:52 AM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Trichloroethene	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Vinyl acetate	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Vinyl chloride	ND	800	H	ppbv	800	9/22/2011 3:52 AM
Xylenes, Total	ND	2,400	H	ppbv	800	9/22/2011 3:52 AM
Surr: 4-Bromofluorobenzene	118	70-130	H	%REC	800	9/22/2011 3:52 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	350,000	94,000		µg/m³	800	9/1/2011 9:28 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/1/2011 9:28 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/1/2011 9:28 PM
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	800	9/1/2011 9:28 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/11/2011 9:57:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-030	**Matrix:**	Air
Client Sample ID:	VA0514		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.35	0.10		%	1	9/7/2011 4:44 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 4:44 PM
Methane	ND	0.50		%	1	9/7/2011 4:44 PM
Nitrogen	80	0.10		%	1	9/7/2011 4:44 PM
Oxygen	19	0.10		%	1	9/7/2011 4:44 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
2-Butanone	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Acetone	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Benzene	110,000	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Bromoform	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Chloroform	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/11/2011 9:57:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-030	**Matrix:**	Air
Client Sample ID:	VA0514		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	320,000	16,000	H	ppbv	8000	9/22/2011 9:05 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Ethylbenzene	ND	16,000	H	ppbv	8000	9/22/2011 9:05 AM
Heptane	120,000	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/22/2011 9:05 AM
m,p-Xylene	ND	16,000	H	ppbv	8000	9/22/2011 9:05 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/22/2011 9:05 AM
n-Hexane	300,000	16,000	H	ppbv	8000	9/22/2011 9:05 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
o-Xylene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Propylene	13,000	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Styrene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Toluene	110,000	8,000	H	ppbv	8000	9/22/2011 9:05 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/22/2011 9:05 AM
Xylenes, Total	ND	24,000	H	ppbv	8000	9/22/2011 9:05 AM
Surr: 4-Bromofluorobenzene	114	70-130	H	%REC	8000	9/22/2011 9:05 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	12,000,000	940,000	H	µg/m³	8000	9/21/2011 11:40 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/21/2011 11:40 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	9/21/2011 11:40 PM
Surr: 4-Bromofluorobenzene	102	70-130	H	%REC	8000	9/21/2011 11:40 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 8:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-031	**Matrix:**	Air
Client Sample ID:	VA0573		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.66	0.10		%	1	9/13/2011 2:00 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 2:00 PM
Methane	ND	0.50		%	1	9/13/2011 2:00 PM
Nitrogen	79	0.10		%	1	9/13/2011 2:00 PM
Oxygen	20	0.10		%	1	9/13/2011 2:00 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 5:30 AM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 5:30 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Acetone	920	400	H	ppbv	400	9/22/2011 5:30 AM
Benzene	1,100	400	H	ppbv	400	9/22/2011 5:30 AM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Bromoform	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Chloroform	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 5:30 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 8:39:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-031	**Matrix:**	Air
Client Sample ID:	VA0573		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,200	800	H	ppbv	400	9/22/2011 5:30 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 5:30 AM
Heptane	2,300	400	H	ppbv	400	9/22/2011 5:30 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 5:30 AM
m,p-Xylene	470	800	JH	ppbv	400	9/22/2011 5:30 AM
Methylene chloride	3,700	2,000	H	ppbv	400	9/22/2011 5:30 AM
n-Hexane	2,400	800	H	ppbv	400	9/22/2011 5:30 AM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Propylene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Styrene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Toluene	3,500	400	H	ppbv	400	9/22/2011 5:30 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 5:30 AM
Xylenes, Total	470	1,200	JH	ppbv	400	9/22/2011 5:30 AM
Surr: 4-Bromofluorobenzene	110	70-130	H	%REC	400	9/22/2011 5:30 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	410,000	94,000		µg/m³	800	9/6/2011 12:32 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 12:32 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 12:32 PM
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	800	9/6/2011 12:32 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-032	**Matrix:**	Air
Client Sample ID:	VA0574		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.50	0.10		%	1	9/13/2011 2:36 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 2:36 PM
Methane	ND	0.50		%	1	9/13/2011 2:36 PM
Nitrogen	79	0.10		%	1	9/13/2011 2:36 PM
Oxygen	20	0.10		%	1	9/13/2011 2:36 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 6:21 AM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 6:21 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Acetone	1,000	400	H	ppbv	400	9/22/2011 6:21 AM
Benzene	1,000	400	H	ppbv	400	9/22/2011 6:21 AM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Bromoform	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Chloroform	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 6:21 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 9:08:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-032	**Matrix:**	Air
Client Sample ID:	VA0574		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,500	800	H	ppbv	400	9/22/2011 6:21 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 6:21 AM
Heptane	2,000	400	H	ppbv	400	9/22/2011 6:21 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 6:21 AM
m,p-Xylene	450	800	JH	ppbv	400	9/22/2011 6:21 AM
Methylene chloride	2,100	2,000	H	ppbv	400	9/22/2011 6:21 AM
n-Hexane	1,900	800	H	ppbv	400	9/22/2011 6:21 AM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Propylene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Styrene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Toluene	2,800	400	H	ppbv	400	9/22/2011 6:21 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 6:21 AM
Xylenes, Total	450	1,200	JH	ppbv	400	9/22/2011 6:21 AM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	400	9/22/2011 6:21 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	160,000	94,000		µg/m³	800	9/6/2011 1:19 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 1:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 1:19 PM
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	800	9/6/2011 1:19 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 9:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-033	**Matrix:**	Air
Client Sample ID:	VA0575		

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	9/13/2011 2:55 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 2:55 PM
Methane	ND	0.50		%	1	9/13/2011 2:55 PM
Nitrogen	78	0.10		%	1	9/13/2011 2:55 PM
Oxygen	20	0.10		%	1	9/13/2011 2:55 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 9:56 AM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 9:56 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Acetone	580	400	H	ppbv	400	9/22/2011 9:56 AM
Benzene	960	400	H	ppbv	400	9/22/2011 9:56 AM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Bromoform	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Chloroform	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 9:56 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 9:42:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-033	**Matrix:**	Air
Client Sample ID:	VA0575		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,900	800	H	ppbv	400	9/22/2011 9:56 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 9:56 AM
Heptane	1,900	400	H	ppbv	400	9/22/2011 9:56 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 9:56 AM
m,p-Xylene	400	800	JH	ppbv	400	9/22/2011 9:56 AM
Methylene chloride	2,600	2,000	H	ppbv	400	9/22/2011 9:56 AM
n-Hexane	1,800	800	H	ppbv	400	9/22/2011 9:56 AM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Propylene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Styrene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Toluene	2,900	400	H	ppbv	400	9/22/2011 9:56 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 9:56 AM
Xylenes, Total	400	1,200	JH	ppbv	400	9/22/2011 9:56 AM
Surr: 4-Bromofluorobenzene	109	70-130	H	%REC	400	9/22/2011 9:56 AM
Mass APH Air **Air-Phase Petroleum Hydrocarbons**	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	190,000	94,000		µg/m³	800	9/6/2011 2:06 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 2:06 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 2:06 PM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	800	9/6/2011 2:06 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 10:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-034	**Matrix:**	Air
Client Sample ID:	VA0576		

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	9/13/2011 3:33 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 3:33 PM
Methane	ND	0.50		%	1	9/13/2011 3:33 PM
Nitrogen	78	0.10		%	1	9/13/2011 3:33 PM
Oxygen	21	0.10		%	1	9/13/2011 3:33 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 10:47 AM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 10:47 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Acetone	3,000	400	H	ppbv	400	9/22/2011 10:47 AM
Benzene	1,400	400	H	ppbv	400	9/22/2011 10:47 AM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Bromoform	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Chloroform	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 10:47 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 10:20:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-034	**Matrix:**	Air
Client Sample ID:	VA0576		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	2,100	800	H	ppbv	400	9/22/2011 10:47 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 10:47 AM
Heptane	2,100	400	H	ppbv	400	9/22/2011 10:47 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 10:47 AM
m,p-Xylene	440	800	JH	ppbv	400	9/22/2011 10:47 AM
Methylene chloride	8,100	2,000	H	ppbv	400	9/22/2011 10:47 AM
n-Hexane	4,300	800	H	ppbv	400	9/22/2011 10:47 AM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Propylene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Styrene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Toluene	3,300	400	H	ppbv	400	9/22/2011 10:47 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 10:47 AM
Xylenes, Total	440	1,200	JH	ppbv	400	9/22/2011 10:47 AM
Surr: 4-Bromofluorobenzene	108	70-130	H	%REC	400	9/22/2011 10:47 AM
Mass APH Air Air-Phase Petroleum Hydrocarbons	**Method:**					**Analyst: RH3**
C5-C8 Aliphatic Hydrocarbons	210,000	94,000		µg/m³	800	9/6/2011 2:52 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 2:52 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 2:52 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	800	9/6/2011 2:52 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 10:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-035	**Matrix:**	Air
Client Sample ID:	VA0577		

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	9/13/2011 3:57 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 3:57 PM
Methane	ND	0.50		%	1	9/13/2011 3:57 PM
Nitrogen	78	0.10		%	1	9/13/2011 3:57 PM
Oxygen	21	0.10		%	1	9/13/2011 3:57 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 8:04 PM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 8:04 PM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Acetone	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Benzene	3,300	400	H	ppbv	400	9/22/2011 8:04 PM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Bromoform	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Chloroform	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 8:04 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 10:58:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-035	**Matrix:**	Air
Client Sample ID:	VA0577		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	6,500	800	H	ppbv	400	9/22/2011 8:04 PM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 8:04 PM
Heptane	5,800	400	H	ppbv	400	9/22/2011 8:04 PM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 8:04 PM
m,p-Xylene	1,100	800	H	ppbv	400	9/22/2011 8:04 PM
Methylene chloride	ND	2,000	H	ppbv	400	9/22/2011 8:04 PM
n-Hexane	7,100	800	H	ppbv	400	9/22/2011 8:04 PM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Propylene	1,300	400	H	ppbv	400	9/22/2011 8:04 PM
Styrene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Toluene	10,000	400	H	ppbv	400	9/22/2011 8:04 PM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 8:04 PM
Xylenes, Total	1,100	1,200	JH	ppbv	400	9/22/2011 8:04 PM
Surr: 4-Bromofluorobenzene	98.2	70-130	H	%REC	400	9/22/2011 8:04 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	880,000	94,000		µg/m³	800	9/6/2011 3:41 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	9/6/2011 3:41 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	9/6/2011 3:41 PM
Surr: 4-Bromofluorobenzene	94.1	70-130		%REC	800	9/6/2011 3:41 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 11:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-036	**Matrix:**	Air
Client Sample ID:	VA0578		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.17	0.10		%	1	9/13/2011 4:16 PM
Carbon Monoxide	ND	0.10		%	1	9/13/2011 4:16 PM
Methane	ND	0.50		%	1	9/13/2011 4:16 PM
Nitrogen	79	0.10		%	1	9/13/2011 4:16 PM
Oxygen	20	0.10		%	1	9/13/2011 4:16 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,3-Butadiene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
2-Butanone	ND	400	H	ppbv	400	9/22/2011 8:54 PM
2-Hexanone	ND	400	H	ppbv	400	9/22/2011 8:54 PM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Acetone	1,300	400	H	ppbv	400	9/22/2011 8:54 PM
Benzene	2,700	400	H	ppbv	400	9/22/2011 8:54 PM
Benzyl chloride	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Bromodichloromethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Bromoform	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Bromomethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Carbon disulfide	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Carbon tetrachloride	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Chlorobenzene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Chlorodibromomethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Chloroethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Chloroform	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Chloromethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 8:54 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/15/2011 11:47:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-036	**Matrix:**	Air
Client Sample ID:	VA0578		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	16,000	800	H	ppbv	400	9/22/2011 8:54 PM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Ethyl acetate	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Ethylbenzene	ND	800	H	ppbv	400	9/22/2011 8:54 PM
Heptane	5,700	400	H	ppbv	400	9/22/2011 8:54 PM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/22/2011 8:54 PM
m,p-Xylene	700	800	JH	ppbv	400	9/22/2011 8:54 PM
Methylene chloride	2,000	2,000	H	ppbv	400	9/22/2011 8:54 PM
n-Hexane	17,000	800	H	ppbv	400	9/22/2011 8:54 PM
Naphthalene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
o-Xylene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Propylene	1,600	400	H	ppbv	400	9/22/2011 8:54 PM
Styrene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Tetrachloroethene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Tetrahydrofuran	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Toluene	9,100	400	H	ppbv	400	9/22/2011 8:54 PM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Trichloroethene	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Vinyl acetate	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Vinyl chloride	ND	400	H	ppbv	400	9/22/2011 8:54 PM
Xylenes, Total	700	1,200	JH	ppbv	400	9/22/2011 8:54 PM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	400	9/22/2011 8:54 PM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	6,900,000	940,000	H	µg/m³	8000	9/22/2011 2:19 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	9/22/2011 2:19 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	9/22/2011 2:19 PM
Surr: 4-Bromofluorobenzene	101	70-130	H	%REC	8000	9/22/2011 2:19 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/3/2011 10:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-037	**Matrix:**	Air
Client Sample ID:	VA0679		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	0.080	0.10	J	%	1	9/1/2011 6:17 PM
Carbon Monoxide	ND	0.10		%	1	9/1/2011 6:17 PM
Methane	ND	0.50		%	1	9/1/2011 6:17 PM
Nitrogen	78	0.10		%	1	9/1/2011 6:17 PM
Oxygen	21	0.10		%	1	9/1/2011 6:17 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,1-Dichloroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,1-Dichloroethene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,2-Dibromoethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,2-Dichloroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,2-Dichloropropane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,3-Butadiene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
2-Butanone	ND	40	H	ppbv	40	10/5/2011 1:59 AM
2-Hexanone	ND	40	H	ppbv	40	10/5/2011 1:59 AM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Acetone	49	40	H	ppbv	40	10/5/2011 1:59 AM
Benzene	160	40	H	ppbv	40	10/5/2011 1:59 AM
Benzyl chloride	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Bromodichloromethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Bromoform	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Bromomethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Carbon disulfide	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Carbon tetrachloride	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Chlorobenzene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Chlorodibromomethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Chloroethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Chloroform	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Chloromethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	10/5/2011 1:59 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/3/2011 10:36:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-037	**Matrix:**	Air
Client Sample ID:	VA0679		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	55	80	JH	ppbv	40	10/5/2011 1:59 AM
Dichlorodifluoromethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Ethyl acetate	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Ethylbenzene	ND	80	H	ppbv	40	10/5/2011 1:59 AM
Heptane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Hexachlorobutadiene	ND	80	H	ppbv	40	10/5/2011 1:59 AM
m,p-Xylene	ND	80	H	ppbv	40	10/5/2011 1:59 AM
Methylene chloride	ND	200	H	ppbv	40	10/5/2011 1:59 AM
n-Hexane	50	80	JH	ppbv	40	10/5/2011 1:59 AM
Naphthalene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
o-Xylene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Propylene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Styrene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Tetrachloroethene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Tetrahydrofuran	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Toluene	360	40	H	ppbv	40	10/5/2011 1:59 AM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Trichloroethene	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Trichlorofluoromethane	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Vinyl acetate	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Vinyl chloride	ND	40	H	ppbv	40	10/5/2011 1:59 AM
Xylenes, Total	ND	120	H	ppbv	40	10/5/2011 1:59 AM
Surr: 4-Bromofluorobenzene	116	70-130	H	%REC	40	10/5/2011 1:59 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	5,900	4,700		µg/m³	40	8/30/2011 2:48 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	8/30/2011 2:48 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600		µg/m³	40	8/30/2011 2:48 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	40	8/30/2011 2:48 PM

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WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/3/2011 11:15:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-038	**Matrix:**	Air
Client Sample ID:	VA0680		

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	9/7/2011 6:01 PM
Carbon Monoxide	ND	0.10		%	1	9/7/2011 6:01 PM
Methane	ND	0.50		%	1	9/7/2011 6:01 PM
Nitrogen	78	0.10		%	1	9/7/2011 6:01 PM
Oxygen	21	0.10		%	1	9/7/2011 6:01 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,1,2,2-Tetrachloroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,1,2-Trichloroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,1-Dichloroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,1-Dichloroethene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,2,4-Trichlorobenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,2,4-Trimethylbenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,2-Dibromoethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,2-Dichlorobenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,2-Dichloroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,2-Dichloropropane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,3,5-Trimethylbenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,3-Butadiene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,3-Dichlorobenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
1,4-Dichlorobenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
2-Butanone	35	4.0	H	ppbv	4	10/5/2011 10:14 AM
2-Hexanone	8.3	4.0	H	ppbv	4	10/5/2011 10:14 AM
4-Methyl-2-pentanone	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Acetone	55	4.0	H	ppbv	4	10/5/2011 10:14 AM
Benzene	22	4.0	H	ppbv	4	10/5/2011 10:14 AM
Benzyl chloride	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Bromodichloromethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Bromoform	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Bromomethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Carbon disulfide	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Carbon tetrachloride	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Chlorobenzene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Chlorodibromomethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Chloroethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Chloroform	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Chloromethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
cis-1,2-Dichloroethene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
cis-1,3-dichloropropene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/3/2011 11:15:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-038	**Matrix:**	Air
Client Sample ID:	VA0680		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	24	8.0	H	ppbv	4	10/5/2011 10:14 AM
Dichlorodifluoromethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Ethyl acetate	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Ethylbenzene	ND	8.0	H	ppbv	4	10/5/2011 10:14 AM
Heptane	11	4.0	H	ppbv	4	10/5/2011 10:14 AM
Hexachlorobutadiene	ND	8.0	H	ppbv	4	10/5/2011 10:14 AM
m,p-Xylene	9.4	8.0	H	ppbv	4	10/5/2011 10:14 AM
Methylene chloride	ND	20	H	ppbv	4	10/5/2011 10:14 AM
n-Hexane	9.8	8.0	H	ppbv	4	10/5/2011 10:14 AM
Naphthalene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
o-Xylene	4.2	4.0	H	ppbv	4	10/5/2011 10:14 AM
Propylene	11	4.0	H	ppbv	4	10/5/2011 10:14 AM
Styrene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
tert-Butyl Methyl Ether	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Tetrachloroethene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Tetrahydrofuran	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Toluene	44	4.0	H	ppbv	4	10/5/2011 10:14 AM
trans-1,2-Dichloroethene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
trans-1,3-dichloropropene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Trichloroethene	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Trichlorofluoromethane	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Vinyl acetate	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Vinyl chloride	ND	4.0	H	ppbv	4	10/5/2011 10:14 AM
Xylenes, Total	14	12	H	ppbv	4	10/5/2011 10:14 AM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	4	10/5/2011 10:14 AM
Mass APH Air	**Method:**					**Analyst: RH3**
Air-Phase Petroleum Hydrocarbons						
C5-C8 Aliphatic Hydrocarbons	29,000	4,700		µg/m³	40	8/31/2011 12:18 AM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	8/31/2011 12:18 AM
C9-C12 Aliphatic Hydrocarbons	20,000	7,600		µg/m³	40	8/31/2011 12:18 AM
Surr: 4-Bromofluorobenzene	93.0	70-130		%REC	40	8/31/2011 12:18 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 7:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-039	**Matrix:**	Air
Client Sample ID:	VA8036-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,1,2,2-Tetrachloroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,1,2-Trichloroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,1-Dichloroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,1-Dichloroethene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,2,4-Trichlorobenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,2,4-Trimethylbenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,2-Dibromoethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,2-Dichlorobenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,2-Dichloroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,2-Dichloropropane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,3,5-Trimethylbenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,3-Butadiene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,3-Dichlorobenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
1,4-Dichlorobenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
2-Butanone	ND	400	H	ppbv	400	9/23/2011 7:54 AM
2-Hexanone	ND	400	H	ppbv	400	9/23/2011 7:54 AM
4-Methyl-2-pentanone	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Acetone	2,300	400	H	ppbv	400	9/23/2011 7:54 AM
Benzene	1,000	400	H	ppbv	400	9/23/2011 7:54 AM
Benzyl chloride	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Bromodichloromethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Bromoform	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Bromomethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Carbon disulfide	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Carbon tetrachloride	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Chlorobenzene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Chlorodibromomethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Chloroethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Chloroform	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Chloromethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
cis-1,2-Dichloroethene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
cis-1,3-dichloropropene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Cyclohexane	3,700	800	H	ppbv	400	9/23/2011 7:54 AM
Dichlorodifluoromethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Ethyl acetate	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Ethylbenzene	ND	800	H	ppbv	400	9/23/2011 7:54 AM
Heptane	2,400	400	H	ppbv	400	9/23/2011 7:54 AM
Hexachlorobutadiene	ND	800	H	ppbv	400	9/23/2011 7:54 AM
m,p-Xylene	530	800	JH	ppbv	400	9/23/2011 7:54 AM
Methylene chloride	1,600	2,000	JH	ppbv	400	9/23/2011 7:54 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 7:00:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-039	**Matrix:**	Air
Client Sample ID:	VA8036-TB		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
n-Hexane	4,700	800	H	ppbv	400	9/23/2011 7:54 AM
Naphthalene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
o-Xylene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Propylene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Styrene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
tert-Butyl Methyl Ether	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Tetrachloroethene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Tetrahydrofuran	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Toluene	1,700	400	H	ppbv	400	9/23/2011 7:54 AM
trans-1,2-Dichloroethene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
trans-1,3-dichloropropene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Trichloroethene	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Trichlorofluoromethane	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Vinyl acetate	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Vinyl chloride	ND	400	H	ppbv	400	9/23/2011 7:54 AM
Xylenes, Total	530	1,200	JH	ppbv	400	9/23/2011 7:54 AM
Surr: 4-Bromofluorobenzene	111	70-130	H	%REC	400	9/23/2011 7:54 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 10:18:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-040	**Matrix:**	Air
Client Sample ID:	VA9029		

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	9/15/2011 3:12 PM
Carbon Monoxide	ND	0.10		%	1	9/15/2011 3:12 PM
Methane	ND	0.50		%	1	9/15/2011 3:12 PM
Nitrogen	85	0.10		%	1	9/15/2011 3:12 PM
Oxygen	12	0.10		%	1	9/15/2011 3:12 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,1,2,2-Tetrachloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,1,2-Trichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,1-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,1-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,2,4-Trichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,2,4-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,2-Dibromoethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,2-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,2-Dichloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,2-Dichloropropane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,3,5-Trimethylbenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,3-Butadiene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,3-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
1,4-Dichlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
2-Butanone	11,000	8,000	H	ppbv	8000	9/23/2011 8:36 AM
2-Hexanone	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
4-Methyl-2-pentanone	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Acetone	72,000	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Benzene	32,000	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Benzyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Bromodichloromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Bromoform	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Bromomethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Carbon disulfide	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Carbon tetrachloride	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Chlorobenzene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Chlorodibromomethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Chloroethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Chloroform	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Chloromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
cis-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
cis-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 10:18:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-040	**Matrix:**	Air
Client Sample ID:	VA9029		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	140,000	16,000	H	ppbv	8000	9/23/2011 8:36 AM
Dichlorodifluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Ethyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Ethylbenzene	10,000	16,000	JH	ppbv	8000	9/23/2011 8:36 AM
Heptane	120,000	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Hexachlorobutadiene	ND	16,000	H	ppbv	8000	9/23/2011 8:36 AM
m,p-Xylene	20,000	16,000	H	ppbv	8000	9/23/2011 8:36 AM
Methylene chloride	ND	40,000	H	ppbv	8000	9/23/2011 8:36 AM
n-Hexane	130,000	16,000	H	ppbv	8000	9/23/2011 8:36 AM
Naphthalene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
o-Xylene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Propylene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Styrene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
tert-Butyl Methyl Ether	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Tetrachloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Tetrahydrofuran	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Toluene	86,000	8,000	H	ppbv	8000	9/23/2011 8:36 AM
trans-1,2-Dichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
trans-1,3-dichloropropene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Trichloroethene	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Trichlorofluoromethane	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Vinyl acetate	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Vinyl chloride	ND	8,000	H	ppbv	8000	9/23/2011 8:36 AM
Xylenes, Total	20,000	24,000	JH	ppbv	8000	9/23/2011 8:36 AM
Surr: 4-Bromofluorobenzene	107	70-130	H	%REC	8000	9/23/2011 8:36 AM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 10:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-041	**Matrix:**	Air
Client Sample ID:	VA9030		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	5.8	0.10		%	1	9/15/2011 3:32 PM
Carbon Monoxide	0.29	0.10		%	1	9/15/2011 3:32 PM
Methane	0.027	0.50	J	%	1	9/15/2011 3:32 PM
Nitrogen	89	0.10		%	1	9/15/2011 3:32 PM
Oxygen	4.5	0.10		%	1	9/15/2011 3:32 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,3-Butadiene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
2-Butanone	ND	40	H	ppbv	40	9/29/2011 7:54 PM
2-Hexanone	ND	40	H	ppbv	40	9/29/2011 7:54 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Acetone	67	40	H	ppbv	40	9/29/2011 7:54 PM
Benzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Benzyl chloride	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Bromoform	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Bromomethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Carbon disulfide	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Chlorobenzene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Chloroethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Chloroform	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Chloromethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/29/2011 7:54 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 10:45:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-041	**Matrix:**	Air
Client Sample ID:	VA9030		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	ND	80	H	ppbv	40	9/29/2011 7:54 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Ethyl acetate	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Ethylbenzene	ND	80	H	ppbv	40	9/29/2011 7:54 PM
Heptane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/29/2011 7:54 PM
m,p-Xylene	ND	80	H	ppbv	40	9/29/2011 7:54 PM
Methylene chloride	140	200	JH	ppbv	40	9/29/2011 7:54 PM
n-Hexane	120	80	H	ppbv	40	9/29/2011 7:54 PM
Naphthalene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
o-Xylene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Propylene	930	40	H	ppbv	40	9/29/2011 7:54 PM
Styrene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Toluene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Trichloroethene	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Vinyl acetate	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Vinyl chloride	ND	40	H	ppbv	40	9/29/2011 7:54 PM
Xylenes, Total	ND	120	H	ppbv	40	9/29/2011 7:54 PM
Surr: 4-Bromofluorobenzene	116	70-130	H	%REC	40	9/29/2011 7:54 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 10:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-042	**Matrix:**	Air
Client Sample ID:	VA9031		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.8	0.10		%	1	9/15/2011 4:11 PM
Carbon Monoxide	ND	0.10		%	1	9/15/2011 4:11 PM
Methane	ND	0.50		%	1	9/15/2011 4:11 PM
Nitrogen	90	0.10		%	1	9/15/2011 4:11 PM
Oxygen	5.7	0.10		%	1	9/15/2011 4:11 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,1,2,2-Tetrachloroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,1,2-Trichloroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,1-Dichloroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,1-Dichloroethene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,2,4-Trichlorobenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,2,4-Trimethylbenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,2-Dibromoethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,2-Dichlorobenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,2-Dichloroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,2-Dichloropropane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,3,5-Trimethylbenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,3-Butadiene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,3-Dichlorobenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
1,4-Dichlorobenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
2-Butanone	ND	800	H	ppbv	800	9/29/2011 8:38 PM
2-Hexanone	ND	800	H	ppbv	800	9/29/2011 8:38 PM
4-Methyl-2-pentanone	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Acetone	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Benzene	810	800	H	ppbv	800	9/29/2011 8:38 PM
Benzyl chloride	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Bromodichloromethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Bromoform	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Bromomethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Carbon disulfide	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Carbon tetrachloride	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Chlorobenzene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Chlorodibromomethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Chloroethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Chloroform	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Chloromethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
cis-1,2-Dichloroethene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
cis-1,3-dichloropropene	ND	800	H	ppbv	800	9/29/2011 8:38 PM

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 10:46:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-042	**Matrix:**	Air
Client Sample ID:	VA9031		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	1,300	1,600	JH	ppbv	800	9/29/2011 8:38 PM
Dichlorodifluoromethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Ethyl acetate	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Ethylbenzene	ND	1,600	H	ppbv	800	9/29/2011 8:38 PM
Heptane	1,400	800	H	ppbv	800	9/29/2011 8:38 PM
Hexachlorobutadiene	ND	1,600	H	ppbv	800	9/29/2011 8:38 PM
m,p-Xylene	ND	1,600	H	ppbv	800	9/29/2011 8:38 PM
Methylene chloride	1,800	4,000	JH	ppbv	800	9/29/2011 8:38 PM
n-Hexane	1,600	1,600	JH	ppbv	800	9/29/2011 8:38 PM
Naphthalene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
o-Xylene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Propylene	38,000	800	H	ppbv	800	9/29/2011 8:38 PM
Styrene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
tert-Butyl Methyl Ether	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Tetrachloroethene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Tetrahydrofuran	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Toluene	2,500	800	H	ppbv	800	9/29/2011 8:38 PM
trans-1,2-Dichloroethene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
trans-1,3-dichloropropene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Trichloroethene	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Trichlorofluoromethane	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Vinyl acetate	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Vinyl chloride	ND	800	H	ppbv	800	9/29/2011 8:38 PM
Xylenes, Total	ND	2,400	H	ppbv	800	9/29/2011 8:38 PM
Surr: 4-Bromofluorobenzene	113	70-130	H	%REC	800	9/29/2011 8:38 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-043	**Matrix:**	Air
Client Sample ID:	VA9034		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Noncondensable Gases and Light Hydrocarbons	**Method: ASTM-D2504**					**Analyst: MB**
Carbon dioxide	4.7	0.10		%	1	9/15/2011 4:31 PM
Carbon Monoxide	0.19	0.10		%	1	9/15/2011 4:31 PM
Methane	ND	0.50		%	1	9/15/2011 4:31 PM
Nitrogen	88	0.10		%	1	9/15/2011 4:31 PM
Oxygen	7.1	0.10		%	1	9/15/2011 4:31 PM
Volatile Organic Compounds	**Method: TO-15**					**Analyst: RH3**
1,1,1-Trichloroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,1,2,2-Tetrachloroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,1,2-Trichloroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,1-Dichloroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,1-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,2,4-Trichlorobenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,2,4-Trimethylbenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,2-Dibromoethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,2-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,2-Dichloroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,2-Dichloropropane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,3,5-Trimethylbenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,3-Butadiene	140	40	H	ppbv	40	9/29/2011 6:31 PM
1,3-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
1,4-Dichlorobenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
2-Butanone	42	40	H	ppbv	40	9/29/2011 6:31 PM
2-Hexanone	ND	40	H	ppbv	40	9/29/2011 6:31 PM
4-Methyl-2-pentanone	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Acetone	420	40	H	ppbv	40	9/29/2011 6:31 PM
Benzene	570	40	H	ppbv	40	9/29/2011 6:31 PM
Benzyl chloride	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Bromodichloromethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Bromoform	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Bromomethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Carbon disulfide	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Carbon tetrachloride	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Chlorobenzene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Chlorodibromomethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Chloroethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Chloroform	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Chloromethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
cis-1,2-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
cis-1,3-dichloropropene	ND	40	H	ppbv	40	9/29/2011 6:31 PM

RTI Laboratories - Analytical Report

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client:	Shaw Environmental & Infrastructure, Inc	**Collection Date:**	8/16/2011 9:03:00 AM
Project:	Kirtland AFB		
Lab ID:	1108899-043	**Matrix:**	Air
Client Sample ID:	VA9034		

Analysis	Result	RL	Qual	Units	DF	Date Analyzed
Cyclohexane	120	80	H	ppbv	40	9/29/2011 6:31 PM
Dichlorodifluoromethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Ethyl acetate	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Ethylbenzene	ND	80	H	ppbv	40	9/29/2011 6:31 PM
Heptane	44	40	H	ppbv	40	9/29/2011 6:31 PM
Hexachlorobutadiene	ND	80	H	ppbv	40	9/29/2011 6:31 PM
m,p-Xylene	ND	80	H	ppbv	40	9/29/2011 6:31 PM
Methylene chloride	ND	200	H	ppbv	40	9/29/2011 6:31 PM
n-Hexane	49	80	JH	ppbv	40	9/29/2011 6:31 PM
Naphthalene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
o-Xylene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Propylene	15,000	800	H	ppbv	800	9/30/2011 10:55 AM
Styrene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
tert-Butyl Methyl Ether	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Tetrachloroethene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Tetrahydrofuran	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Toluene	150	40	H	ppbv	40	9/29/2011 6:31 PM
trans-1,2-Dichloroethene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
trans-1,3-dichloropropene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Trichloroethene	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Trichlorofluoromethane	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Vinyl acetate	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Vinyl chloride	ND	40	H	ppbv	40	9/29/2011 6:31 PM
Xylenes, Total	ND	120	H	ppbv	40	9/29/2011 6:31 PM
Surr: 4-Bromofluorobenzene	112	70-130	H	%REC	40	9/29/2011 6:31 PM

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42540

Sample ID:	MBLK 083011 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42540	
Client ID:	PBW	Batch ID:	R42540	TestNo:	MA_APH			Analysis Date:	8/30/2011	SeqNo:	824400	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	46	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	86		89.50		95.6	70	130				

Sample ID:	1108899-037ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42540	
Client ID:	VA0679	Batch ID:	R42540	TestNo:	MA_APH			Analysis Date:	8/30/2011	SeqNo:	824402	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	7,100	4,700						5,864	18.9	30	
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	
C9-C12 Aliphatic Hydrocarbons	ND	7,600						0	0	30	
Surr: 4-Bromofluorobenzene	3,400		3,580		94.2	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42572

Sample ID:	MBLK 083111 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42572	
Client ID:	PBW	Batch ID:	R42572	TestNo:	MA_APH			Analysis Date:	8/31/2011	SeqNo:	825011	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	39	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	84		89.50		94.1	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42638

Sample ID:	MBLK 090111 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42638	
Client ID:	PBW	Batch ID:	R42638	TestNo:	MA_APH			Analysis Date:	9/1/2011	SeqNo:	826580	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	44	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	86		89.50		96.0	70	130				

Sample ID:	1108899-022ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42638	
Client ID:	VA0506	Batch ID:	R42638	TestNo:	MA_APH			Analysis Date:	9/1/2011	SeqNo:	826590	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	35,000	4,700						32,840	6.69	30	
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	
C9-C12 Aliphatic Hydrocarbons	6,500	7,600						6,425	1.02	30	J
Surr: 4-Bromofluorobenzene	3,400		3,580		94.6	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42664

Sample ID:	MBLK 090611 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42664	
Client ID:	PBW	Batch ID:	R42664	TestNo:	MA_APH			Analysis Date:	9/6/2011	SeqNo:	827248	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	82	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	84		89.50		94.1	70	130				

Sample ID:	1108899-001ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42664	
Client ID:	VA0436	Batch ID:	R42664	TestNo:	MA_APH			Analysis Date:	9/6/2011	SeqNo:	827255	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	690,000	940,000						702,100	2.21	30	J
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	
Surr: 4-Bromofluorobenzene	690,000		716,000		96.4	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R42685

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	42685	
Client ID:	PBW	Batch ID:	R42685	TestNo:	ASTM-D2504			Analysis Date:	9/1/2011	SeqNo:	828009	

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	42685	
Client ID:	LCSW	Batch ID:	R42685	TestNo:	ASTM-D2504			Analysis Date:	9/1/2011	SeqNo:	828011	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	108	70	130	2.784	2.66	0	
Carbon Monoxide	2.6	0.10	2.500	0	104	70	130	2.589	0.193	0	
Methane	2.0	0.50	2.000	0	98.3	70	130	1.963	0.153	0	
Nitrogen	2.7	0.10	2.500	0	106	70	130	2.583	2.67	0	
Oxygen	2.7	0.10	2.500	0	106	70	130	2.630	0.871	0	

Sample ID:	1108688-023bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	42685	
Client ID:	ZZZZZZ	Batch ID:	R42685	TestNo:	ASTM-D2504			Analysis Date:	9/1/2011	SeqNo:	828022	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.076	0.10						0.06800	11.1	20	J
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						77.50	0.0297	20	
Oxygen	21	0.10						20.74	0.0868	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42686

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	42686
Client ID:	PBW	Batch ID:	R42686	TestNo:	ASTM-D2504			Analysis Date:	9/2/2011	SeqNo:	827997

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	42686
Client ID:	LCSW	Batch ID:	R42686	TestNo:	ASTM-D2504			Analysis Date:	9/2/2011	SeqNo:	827999

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.8	0.10	2.500	0	111	70	130	2.762	0.0362	0	
Carbon Monoxide	2.6	0.10	2.500	0	102	70	130	2.582	0.817	0	
Methane	1.9	0.50	2.000	0	96.4	70	130	1.963	1.80	0	
Nitrogen	2.6	0.10	2.500	0	102	70	130	2.569	0.546	0	
Oxygen	2.6	0.10	2.500	0	104	70	130	2.621	0.766	0	

Sample ID:	1108899-018bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	42686
Client ID:	VA0491	Batch ID:	R42686	TestNo:	ASTM-D2504			Analysis Date:	9/2/2011	SeqNo:	828006

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.21	0.10						0.2100	0	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	79	0.10						79.59	0.289	20	
Oxygen	19	0.10						19.18	0.329	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42963

Sample ID:	BLK VOA1 092111	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	42963
Client ID:	PBW	Batch ID:	R42963	TestNo:	TO-15			Analysis Date:	9/21/2011	SeqNo:	835670

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									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42963

Sample ID:	BLK VOA1 092111	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	42963
Client ID:	PBW	Batch ID:	R42963	TestNo:	TO-15			Analysis Date:	9/21/2011	SeqNo:	835670

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		110	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R42963

Sample ID:	1108899-019ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	42963
Client ID:	VA0503	Batch ID:	R42963	TestNo:	TO-15			Analysis Date:	9/21/2011	SeqNo:	835672

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	H
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	H
1,1,2-Trichloroethane	ND	40						0	0	25	H
1,1-Dichloroethane	ND	40						0	0	25	H
1,1-Dichloroethene	ND	40						0	0	25	H
1,2,4-Trichlorobenzene	ND	40						0	0	25	H
1,2,4-Trimethylbenzene	ND	40						0	0	25	H
1,2-Dibromoethane	ND	40						0	0	25	H
1,2-Dichlorobenzene	ND	40						0	0	25	H
1,2-Dichloroethane	ND	40						0	0	25	H
1,2-Dichloropropane	ND	40						0	0	25	H
1,3,5-Trimethylbenzene	ND	40						0	0	25	H
1,3-Butadiene	ND	40						0	0	25	H
1,3-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dichlorobenzene	ND	40						0	0	25	H
2-Butanone	ND	40						0	0	25	H
2-Hexanone	ND	40						0	0	25	H
4-Methyl-2-pentanone	ND	40						0	0	25	H
Acetone	ND	40						0	0	25	H
Benzene	630	40						564.4	11.3	25	H
Benzyl chloride	ND	40						0	0	25	H
Bromodichloromethane	ND	40						0	0	25	H
Bromoform	ND	40						0	0	25	H
Bromomethane	ND	40						0	0	25	H
Carbon disulfide	ND	40						0	0	25	H
Carbon tetrachloride	ND	40						0	0	25	H
Chlorobenzene	ND	40						0	0	25	H
Chlorodibromomethane	ND	40						0	0	25	H
Chloroethane	ND	40						0	0	25	H
Chloroform	ND	40						0	0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42963

Sample ID:	1108899-019ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	42963
Client ID:	VA0503	Batch ID:	R42963	TestNo:	TO-15			Analysis Date:	9/21/2011	SeqNo:	835672

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	H
cis-1,2-Dichloroethene	ND	40						0	0	25	H
cis-1,3-dichloropropene	ND	40						0	0	25	H
Cyclohexane	750	80						685.6	8.87	25	H
Dichlorodifluoromethane	ND	40						0	0	25	H
Ethyl acetate	ND	40						0	0	25	H
Ethylbenzene	53	80						51.20	3.83	25	JH
Heptane	500	40						496.0	0.402	25	H
Hexachlorobutadiene	ND	80						0	0	25	H
m,p-Xylene	110	80						106.4	2.96	25	H
Methylene chloride	ND	200						0	0	25	H
n-Hexane	580	80						505.2	13.1	25	H
Naphthalene	ND	40						0	0	25	H
o-Xylene	ND	40						0	0	25	H
Propylene	ND	40						0	0	25	H
Styrene	ND	40						0	0	25	H
tert-Butyl Methyl Ether	ND	40						0	0	25	H
Tetrachloroethene	ND	40						0	0	25	H
Tetrahydrofuran	ND	40						0	0	25	H
Toluene	1,600	40						1,416	9.57	25	H
trans-1,2-Dichloroethene	ND	40						0	0	25	H
trans-1,3-dichloropropene	ND	40						0	0	25	H
Trichloroethene	ND	40						0	0	25	H
Trichlorofluoromethane	ND	40						0	0	25	H
Vinyl acetate	ND	40						0	0	25	H
Vinyl chloride	ND	40						0	0	25	H
Xylenes, Total	110	120						106.4	2.96	25	JH
Surr: 4-Bromofluorobenzene	520		500.0		104	70	130		0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R42997

Sample ID:	BLK1 092111 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42997	
Client ID:	PBW	Batch ID:	R42997	TestNo:	MA_APH			Analysis Date:	9/21/2011	SeqNo:	836505	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	100	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	91		89.50		102	70	130				

Sample ID:	1108899-036ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42997	
Client ID:	VA0578	Batch ID:	R42997	TestNo:	MA_APH			Analysis Date:	9/22/2011	SeqNo:	836519	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	6,700,000	940,000						6,886,000	2.63	30	H
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	H
Surr: 4-Bromofluorobenzene	740,000		716,000		103	70	130		0	30	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R42999

Sample ID:	BLK2 092111 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42999	
Client ID:	PBW	Batch ID:	R42999	TestNo:	MA_APH			Analysis Date:	9/22/2011	SeqNo:	836552	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	97	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	93		89.50		103	70	130				

Sample ID:	1108899-009ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	42999	
Client ID:	VA0444	Batch ID:	R42999	TestNo:	MA_APH			Analysis Date:	9/23/2011	SeqNo:	836554	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	8,500,000	940,000						8,346,000	1.91	30	H
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	1,700,000	1,500,000						1,559,000	10.8	30	H
Surr: 4-Bromofluorobenzene	740,000		716,000		103	70	130		0	30	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43000

Sample ID:	BLK VOA1 092211	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43000
Client ID:	PBW	Batch ID:	R43000	TestNo:	TO-15			Analysis Date:	9/22/2011	SeqNo:	836577

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									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43000

Sample ID:	BLK VOA1 092211	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43000
Client ID:	PBW	Batch ID:	R43000	TestNo:	TO-15			Analysis Date:	9/22/2011	SeqNo:	836577

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	13		12.50		107	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43000

Sample ID:	1108899-001ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43000
Client ID:	VA0436	Batch ID:	R43000	TestNo:	TO-15			Analysis Date:	9/22/2011	SeqNo:	836582

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	H
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	H
1,1,2-Trichloroethane	ND	40						0	0	25	H
1,1-Dichloroethane	ND	40						0	0	25	H
1,1-Dichloroethene	ND	40						0	0	25	H
1,2,4-Trichlorobenzene	ND	40						0	0	25	H
1,2,4-Trimethylbenzene	ND	40						0	0	25	H
1,2-Dibromoethane	ND	40						0	0	25	H
1,2-Dichlorobenzene	ND	40						0	0	25	H
1,2-Dichloroethane	ND	40						0	0	25	H
1,2-Dichloropropane	ND	40						0	0	25	H
1,3,5-Trimethylbenzene	ND	40						0	0	25	H
1,3-Butadiene	ND	40						0	0	25	H
1,3-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dichlorobenzene	ND	40						0	0	25	H
2-Butanone	ND	40						0	0	25	H
2-Hexanone	ND	40						0	0	25	H
4-Methyl-2-pentanone	ND	40						0	0	25	H
Acetone	48	40						48.40	1.67	25	H
Benzene	960	40						902.8	5.77	25	H
Benzyl chloride	ND	40						0	0	25	H
Bromodichloromethane	ND	40						0	0	25	H
Bromoform	ND	40						0	0	25	H
Bromomethane	ND	40						0	0	25	H
Carbon disulfide	ND	40						0	0	25	H
Carbon tetrachloride	ND	40						0	0	25	H
Chlorobenzene	ND	40						0	0	25	H
Chlorodibromomethane	ND	40						0	0	25	H
Chloroethane	ND	40						0	0	25	H
Chloroform	ND	40						0	0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R43000

Sample ID:	1108899-001ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43000	
Client ID:	VA0436	Batch ID:	R43000	TestNo:	TO-15			Analysis Date:	9/22/2011	SeqNo:	836582	

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	H
cis-1,2-Dichloroethene	ND	40						0	0	25	H
cis-1,3-dichloropropene	ND	40						0	0	25	H
Cyclohexane	1,800	80						1,659	6.44	25	H
Dichlorodifluoromethane	ND	40						0	0	25	H
Ethyl acetate	ND	40						0	0	25	H
Ethylbenzene	56	80						58.40	4.20	25	JH
Heptane	1,300	40						1,348	3.56	25	H
Hexachlorobutadiene	ND	80						0	0	25	H
m,p-Xylene	200	80						204.0	3.59	25	H
Methylene chloride	ND	200						0	0	25	H
n-Hexane	1,200	80						993.2	15.2	25	H
Naphthalene	ND	40						0	0	25	H
o-Xylene	51	40						52.00	2.33	25	H
Propylene	ND	40						0	0	25	H
Styrene	ND	40						0	0	25	H
tert-Butyl Methyl Ether	ND	40						0	0	25	H
Tetrachloroethene	ND	40						0	0	25	H
Tetrahydrofuran	ND	40						0	0	25	H
Toluene	2,100	40						2,276	5.75	25	H
trans-1,2-Dichloroethene	ND	40						0	0	25	H
trans-1,3-dichloropropene	ND	40						0	0	25	H
Trichloroethene	ND	40						0	0	25	H
Trichlorofluoromethane	ND	40						0	0	25	H
Vinyl acetate	ND	40						0	0	25	H
Vinyl chloride	ND	40						0	0	25	H
Xylenes, Total	250	120						256.0	3.34	25	H
Surr: 4-Bromofluorobenzene	440		500.0		87.5	70	130		0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43034

Sample ID:	BLK2 092311 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	43034	
Client ID:	PBW	Batch ID:	R43034	TestNo:	MA_APH			Analysis Date:	9/23/2011	SeqNo:	837649	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	90	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	96		89.50		108	70	130				

Sample ID:	1108899-008ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	43034	
Client ID:	VA0443	Batch ID:	R43034	TestNo:	MA_APH			Analysis Date:	9/23/2011	SeqNo:	837652	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	21,000,000	2,300,000						21,720,000	5.04	30	H
C9-C10 Aromatic Hydrocarbons	ND	2,700,000						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	1,400,000	3,800,000						1,518,000	8.98	30	JH
Surr: 4-Bromofluorobenzene	1,900,000		1,790,000		108	70	130		0	30	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43035

Sample ID:	BLK VOA1 092311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43035
Client ID:	PBW	Batch ID:	R43035	TestNo:	TO-15			Analysis Date:	9/23/2011	SeqNo:	837687

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									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43035

Sample ID:	BLK VOA1 092311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43035
Client ID:	PBW	Batch ID:	R43035	TestNo:	TO-15			Analysis Date:	9/23/2011	SeqNo:	837687

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		109	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43035

Sample ID:	1108899-014ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43035
Client ID:	VA0449	Batch ID:	R43035	TestNo:	TO-15			Analysis Date:	9/23/2011	SeqNo:	837707

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	H
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	H
1,1,2-Trichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethene	ND	8,000						0	0	25	H
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	H
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	H
1,2-Dibromoethane	ND	8,000						0	0	25	H
1,2-Dichlorobenzene	ND	8,000						0	0	25	H
1,2-Dichloroethane	ND	8,000						0	0	25	H
1,2-Dichloropropane	ND	8,000						0	0	25	H
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	H
1,3-Butadiene	ND	8,000						0	0	25	H
1,3-Dichlorobenzene	ND	8,000						0	0	25	H
1,4-Dichlorobenzene	ND	8,000						0	0	25	H
2-Butanone	10,000	8,000						9,280	9.05	25	H
2-Hexanone	ND	8,000						0	0	25	H
4-Methyl-2-pentanone	ND	8,000						0	0	25	H
Acetone	42,000	8,000						38,000	10.0	25	H
Benzene	54,000	8,000						70,240	26.0	25	RH
Benzyl chloride	ND	8,000						0	0	25	H
Bromodichloromethane	ND	8,000						0	0	25	H
Bromoform	ND	8,000						0	0	25	H
Bromomethane	ND	8,000						0	0	25	H
Carbon disulfide	ND	8,000						0	0	25	H
Carbon tetrachloride	ND	8,000						0	0	25	H
Chlorobenzene	ND	8,000						0	0	25	H
Chlorodibromomethane	ND	8,000						0	0	25	H
Chloroethane	ND	8,000						0	0	25	H
Chloroform	ND	8,000						0	0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43035

Sample ID:	1108899-014ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43035
Client ID:	VA0449	Batch ID:	R43035	TestNo:	TO-15			Analysis Date:	9/23/2011	SeqNo:	837707

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	H
cis-1,2-Dichloroethene	ND	8,000						0	0	25	H
cis-1,3-dichloropropene	ND	8,000						0	0	25	H
Cyclohexane	290,000	16,000						338,700	15.9	25	H
Dichlorodifluoromethane	ND	8,000						0	0	25	H
Ethyl acetate	ND	8,000						0	0	25	H
Ethylbenzene	10,000	16,000						10,160	2.33	25	JH
Heptane	130,000	8,000						146,600	11.1	25	H
Hexachlorobutadiene	ND	16,000						0	0	25	H
m,p-Xylene	13,000	16,000						13,040	3.02	25	JH
Methylene chloride	ND	40,000						0	0	25	H
n-Hexane	300,000	16,000						356,700	16.1	25	H
Naphthalene	ND	8,000						0	0	25	H
o-Xylene	ND	8,000						0	0	25	H
Propylene	ND	8,000						0	0	25	H
Styrene	ND	8,000						0	0	25	H
tert-Butyl Methyl Ether	ND	8,000						0	0	25	H
Tetrachloroethene	ND	8,000						0	0	25	H
Tetrahydrofuran	ND	8,000						0	0	25	H
Toluene	58,000	8,000						61,360	5.77	25	H
trans-1,2-Dichloroethene	ND	8,000						0	0	25	H
trans-1,3-dichloropropene	ND	8,000						0	0	25	H
Trichloroethene	ND	8,000						0	0	25	H
Trichlorofluoromethane	ND	8,000						0	0	25	H
Vinyl acetate	ND	8,000						0	0	25	H
Vinyl chloride	ND	8,000						0	0	25	H
Xylenes, Total	13,000	24,000						13,040	3.02	25	JH
Surr: 4-Bromofluorobenzene	100,000		100,000		104	70	130		0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43050

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43050
Client ID:	PBW	Batch ID:	R43050	TestNo:	ASTM-D2504			Analysis Date:	9/7/2011	SeqNo:	837983

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43050
Client ID:	LCSW	Batch ID:	R43050	TestNo:	ASTM-D2504			Analysis Date:	9/7/2011	SeqNo:	837985

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	109	70	130				
Carbon Monoxide	2.7	0.10	2.500	0	106	70	130				
Methane	2.1	0.50	2.000	0	104	70	130				
Nitrogen	2.6	0.10	2.500	0	104	70	130				
Oxygen	2.6	0.10	2.500	0	105	70	130				

Sample ID:	1108899-030bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43050
Client ID:	VA0514	Batch ID:	R43050	TestNo:	ASTM-D2504			Analysis Date:	9/7/2011	SeqNo:	837997

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.35	0.10						0.3460	0.576	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	80	0.10						79.76	0.712	20	
Oxygen	19	0.10						19.22	0.597	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43051

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43051
Client ID:	PBW	Batch ID:	R43051	TestNo:	ASTM-D2504			Analysis Date:	9/13/2011	SeqNo:	838004

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43051
Client ID:	LCSW	Batch ID:	R43051	TestNo:	ASTM-D2504			Analysis Date:	9/13/2011	SeqNo:	838006

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.8	0.10	2.500	0	112	70	130				
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130				
Methane	2.0	0.50	2.000	0	102	70	130				
Nitrogen	2.6	0.10	2.500	0	105	70	130				
Oxygen	2.6	0.10	2.500	0	105	70	130				

Sample ID:	1108899-004bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43051
Client ID:	VA0439	Batch ID:	R43051	TestNo:	ASTM-D2504			Analysis Date:	9/13/2011	SeqNo:	838018

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.23	0.10						0.2170	4.94	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						78.72	0.715	20	
Oxygen	21	0.10						20.36	2.21	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43052

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43052
Client ID:	PBW	Batch ID:	R43052	TestNo:	ASTM-D2504			Analysis Date:	9/14/2011	SeqNo:	838021

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

Sample ID:	lcs	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43052
Client ID:	LCSW	Batch ID:	R43052	TestNo:	ASTM-D2504			Analysis Date:	9/14/2011	SeqNo:	838023

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.8	0.10	2.500	0	113	70	130				
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130				
Methane	2.2	0.50	2.000	0	110	70	130				
Nitrogen	2.6	0.10	2.500	0	103	70	130				
Oxygen	2.6	0.10	2.500	0	104	70	130				

Sample ID:	1108899-014bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43052
Client ID:	VA0449	Batch ID:	R43052	TestNo:	ASTM-D2504			Analysis Date:	9/14/2011	SeqNo:	838035

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	3.1	0.10						3.169	3.79	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	82	0.10						83.43	1.55	20	
Oxygen	15	0.10						13.35	9.57	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43053

Sample ID:	mblk091511tcd	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43053	
Client ID:	PBW	Batch ID:	R43053	TestNo:	ASTM-D2504			Analysis Date:	9/15/2011	SeqNo:	838038	

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

Sample ID:	LCS091511tcd	Samp Type:	LCS	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43053	
Client ID:	LCSW	Batch ID:	R43053	TestNo:	ASTM-D2504			Analysis Date:	9/15/2011	SeqNo:	838040	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	110	70	130				
Carbon Monoxide	2.6	0.10	2.500	0	103	70	130				
Methane	2.0	0.50	2.000	0	101	70	130				
Nitrogen	2.6	0.10	2.500	0	104	70	130				
Oxygen	2.3	0.10	2.500	0	91.6	70	130				

Sample ID:	1108899-043bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	43053	
Client ID:	VA9034	Batch ID:	R43053	TestNo:	ASTM-D2504			Analysis Date:	9/15/2011	SeqNo:	838047	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	4.7	0.10						4.730	0.0423	20	
Carbon Monoxide	0.19	0.10						0.1930	0.519	20	
Methane	ND	0.50						0	0	20	
Nitrogen	88	0.10						88.13	0.0761	20	
Oxygen	7.1	0.10						7.063	0.0425	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R43152

Sample ID:	1108899-043ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43152	
Client ID:	VA9034	Batch ID:	R43152	TestNo:	TO-15			Analysis Date:	9/29/2011	SeqNo:	840606	

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	H
1,1,2,2-Tetrachloroethane	ND	40						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40						0	0	25	H
1,1,2-Trichloroethane	ND	40						0	0	25	H
1,1-Dichloroethane	ND	40						0	0	25	H
1,1-Dichloroethene	ND	40						0	0	25	H
1,2,4-Trichlorobenzene	ND	40						0	0	25	H
1,2,4-Trimethylbenzene	ND	40						0	0	25	H
1,2-Dibromoethane	ND	40						0	0	25	H
1,2-Dichlorobenzene	ND	40						0	0	25	H
1,2-Dichloroethane	ND	40						0	0	25	H
1,2-Dichloropropane	ND	40						0	0	25	H
1,3,5-Trimethylbenzene	ND	40						0	0	25	H
1,3-Butadiene	ND	40						143.2	200	25	RH
1,3-Dichlorobenzene	ND	40						0	0	25	H
1,4-Dichlorobenzene	ND	40						0	0	25	H
2-Butanone	ND	40						42.00	200	25	RH
2-Hexanone	ND	40						0	0	25	H
4-Methyl-2-pentanone	ND	40						0	0	25	H
Acetone	300	40						421.6	32.3	25	RH
Benzene	470	40						570.4	20.3	25	H
Benzyl chloride	ND	40						0	0	25	H
Bromodichloromethane	ND	40						0	0	25	H
Bromoform	ND	40						0	0	25	H
Bromomethane	ND	40						0	0	25	H
Carbon disulfide	ND	40						0	0	25	H
Carbon tetrachloride	ND	40						0	0	25	H
Chlorobenzene	ND	40						0	0	25	H
Chlorodibromomethane	ND	40						0	0	25	H
Chloroethane	ND	40						0	0	25	H
Chloroform	ND	40						0	0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43152

Sample ID:	1108899-043ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43152	
Client ID:	VA9034	Batch ID:	R43152	TestNo:	TO-15			Analysis Date:	9/29/2011	SeqNo:	840606	

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	H
cis-1,2-Dichloroethene	ND	40						0	0	25	H
cis-1,3-dichloropropene	ND	40						0	0	25	H
Cyclohexane	100	80						116.0	12.5	25	H
Dichlorodifluoromethane	ND	40						0	0	25	H
Ethyl acetate	ND	40						0	0	25	H
Ethylbenzene	ND	80						0	0	25	H
Heptane	ND	40						43.60	200	25	RH
Hexachlorobutadiene	ND	80						0	0	25	H
m,p-Xylene	ND	80						0	0	25	H
Methylene chloride	ND	200						0	0	25	H
n-Hexane	44	80						48.80	9.44	25	JH
Naphthalene	ND	40						0	0	25	H
o-Xylene	ND	40						0	0	25	H
Propylene	9,100	40						8,899	1.87	25	H
Styrene	ND	40						0	0	25	H
tert-Butyl Methyl Ether	ND	40						0	0	25	H
Tetrachloroethene	ND	40						0	0	25	H
Tetrahydrofuran	ND	40						0	0	25	H
Toluene	120	40						152.8	22.1	25	H
trans-1,2-Dichloroethene	ND	40						0	0	25	H
trans-1,3-dichloropropene	ND	40						0	0	25	H
Trichloroethene	ND	40						0	0	25	H
Trichlorofluoromethane	ND	40						0	0	25	H
Vinyl acetate	ND	40						0	0	25	H
Vinyl chloride	ND	40						0	0	25	H
Xylenes, Total	ND	120						0	0	25	H
Surr: 4-Bromofluorobenzene	580		500.0		115	70	130		0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R43152

Sample ID:	VOA1 BLK 092711	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43152
Client ID:	PBW	Batch ID:	R43152	TestNo:	TO-15			Analysis Date:	9/30/2011	SeqNo:	841761

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									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43152

Sample ID:	VOA1 BLK 092711	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43152
Client ID:	PBW	Batch ID:	R43152	TestNo:	TO-15			Analysis Date:	9/30/2011	SeqNo:	841761

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		114	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43244

Sample ID:	Blank VOA1 10041	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43244
Client ID:	PBW	Batch ID:	R43244	TestNo:	TO-15			Analysis Date:	10/4/2011	SeqNo:	843281

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									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43244

Sample ID:	Blank VOA1 10041	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43244
Client ID:	PBW	Batch ID:	R43244	TestNo:	TO-15			Analysis Date:	10/4/2011	SeqNo:	843281

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		113	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43244

Sample ID:	1108688-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43244	
Client ID:	ZZZZZZ	Batch ID:	R43244	TestNo:	TO-15			Analysis Date:	10/5/2011	SeqNo:	844663	

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	H
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	H
1,1,2-Trichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethene	ND	8,000						0	0	25	H
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	H
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	H
1,2-Dibromoethane	ND	8,000						0	0	25	H
1,2-Dichlorobenzene	ND	8,000						0	0	25	H
1,2-Dichloroethane	ND	8,000						0	0	25	H
1,2-Dichloropropane	ND	8,000						0	0	25	H
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	H
1,3-Butadiene	ND	8,000						0	0	25	H
1,3-Dichlorobenzene	ND	8,000						0	0	25	H
1,4-Dichlorobenzene	ND	8,000						0	0	25	H
2-Butanone	ND	8,000						0	0	25	H
2-Hexanone	ND	8,000						0	0	25	H
4-Methyl-2-pentanone	ND	8,000						0	0	25	H
Acetone	ND	8,000						0	0	25	H
Benzene	37,000	8,000						37,840	2.35	25	H
Benzyl chloride	ND	8,000						0	0	25	H
Bromodichloromethane	ND	8,000						0	0	25	H
Bromoform	ND	8,000						0	0	25	H
Bromomethane	ND	8,000						0	0	25	H
Carbon disulfide	ND	8,000						0	0	25	H
Carbon tetrachloride	ND	8,000						0	0	25	H
Chlorobenzene	ND	8,000						0	0	25	H
Chlorodibromomethane	ND	8,000						0	0	25	H
Chloroethane	ND	8,000						0	0	25	H
Chloroform	ND	8,000						0	0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43244

Sample ID:	1108688-010ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43244	
Client ID:	ZZZZZZ	Batch ID:	R43244	TestNo:	TO-15			Analysis Date:	10/5/2011	SeqNo:	844663	

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	H
cis-1,2-Dichloroethene	ND	8,000						0	0	25	H
cis-1,3-dichloropropene	ND	8,000						0	0	25	H
Cyclohexane	14,000	16,000						14,000	3.49	25	JH
Dichlorodifluoromethane	ND	8,000						0	0	25	H
Ethyl acetate	ND	8,000						0	0	25	H
Ethylbenzene	ND	16,000						0	0	25	H
Heptane	ND	8,000						0	0	25	H
Hexachlorobutadiene	ND	16,000						0	0	25	H
m,p-Xylene	ND	16,000						0	0	25	H
Methylene chloride	ND	40,000						0	0	25	H
n-Hexane	8,200	16,000						8,240	0.976	25	JH
Naphthalene	ND	8,000						0	0	25	H
o-Xylene	ND	8,000						0	0	25	H
Propylene	ND	8,000						0	0	25	H
Styrene	ND	8,000						0	0	25	H
tert-Butyl Methyl Ether	ND	8,000						0	0	25	H
Tetrachloroethene	ND	8,000						0	0	25	H
Tetrahydrofuran	ND	8,000						0	0	25	H
Toluene	8,400	8,000						8,720	3.74	25	H
trans-1,2-Dichloroethene	ND	8,000						0	0	25	H
trans-1,3-dichloropropene	ND	8,000						0	0	25	H
Trichloroethene	ND	8,000						0	0	25	H
Trichlorofluoromethane	ND	8,000						0	0	25	H
Vinyl acetate	ND	8,000						0	0	25	H
Vinyl chloride	ND	8,000						0	0	25	H
Xylenes, Total	ND	24,000						0	0	25	H
Surr: 4-Bromofluorobenzene	120,000		100,000		117	70	130		0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43330

Sample ID:	BLANK VOA1 10061	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43330
Client ID:	PBW	Batch ID:	R43330	TestNo:	TO-15			Analysis Date:	10/6/2011	SeqNo:	845957

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									
1,1,2,2-Tetrachloroethane	ND	1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.0									
1,1,2-Trichloroethane	ND	1.0									
1,1-Dichloroethane	ND	1.0									
1,1-Dichloroethene	ND	1.0									
1,2,4-Trichlorobenzene	ND	1.0									
1,2,4-Trimethylbenzene	ND	1.0									
1,2-Dibromoethane	ND	1.0									
1,2-Dichlorobenzene	ND	1.0									
1,2-Dichloroethane	ND	1.0									
1,2-Dichloropropane	ND	1.0									
1,3,5-Trimethylbenzene	ND	1.0									
1,3-Butadiene	ND	1.0									
1,3-Dichlorobenzene	ND	1.0									
1,4-Dichlorobenzene	ND	1.0									
2-Butanone	ND	1.0									
2-Hexanone	ND	1.0									
4-Methyl-2-pentanone	ND	1.0									
Acetone	ND	1.0									
Benzene	ND	1.0									
Benzyl chloride	ND	1.0									
Bromodichloromethane	ND	1.0									
Bromoform	ND	1.0									
Bromomethane	ND	1.0									
Carbon disulfide	ND	1.0									
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43330

Sample ID:	BLANK VOA1 10061	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43330
Client ID:	PBW	Batch ID:	R43330	TestNo:	TO-15			Analysis Date:	10/6/2011	SeqNo:	845957

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Chloromethane	ND	1.0									
cis-1,2-Dichloroethene	ND	1.0									
cis-1,3-dichloropropene	ND	1.0									
Cyclohexane	ND	2.0									
Dichlorodifluoromethane	ND	1.0									
Ethyl acetate	ND	1.0									
Ethylbenzene	ND	2.0									
Heptane	ND	1.0									
Hexachlorobutadiene	ND	2.0									
m,p-Xylene	ND	2.0									
Methylene chloride	ND	5.0									
n-Hexane	ND	2.0									
Naphthalene	ND	1.0									
o-Xylene	ND	1.0									
Propylene	ND	1.0									
Styrene	ND	1.0									
tert-Butyl Methyl Ether	ND	1.0									
Tetrachloroethene	ND	1.0									
Tetrahydrofuran	ND	1.0									
Toluene	ND	1.0									
trans-1,2-Dichloroethene	ND	1.0									
trans-1,3-dichloropropene	ND	1.0									
Trichloroethene	ND	1.0									
Trichlorofluoromethane	ND	1.0									
Vinyl acetate	ND	1.0									
Vinyl chloride	ND	1.0									
Xylenes, Total	ND	3.0									
Surr: 4-Bromofluorobenzene	14		12.50		114	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43330

Sample ID:	1109555-001ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43330
Client ID:	ZZZZZZ	Batch ID:	R43330	TestNo:	TO-15			Analysis Date:	10/7/2011	SeqNo:	845969

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	H
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	H
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	H
1,1,2-Trichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethane	ND	8,000						0	0	25	H
1,1-Dichloroethene	ND	8,000						0	0	25	H
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	H
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	H
1,2-Dibromoethane	ND	8,000						0	0	25	H
1,2-Dichlorobenzene	ND	8,000						0	0	25	H
1,2-Dichloroethane	ND	8,000						0	0	25	H
1,2-Dichloropropane	ND	8,000						0	0	25	H
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	H
1,3-Butadiene	ND	8,000						0	0	25	H
1,3-Dichlorobenzene	ND	8,000						0	0	25	H
1,4-Dichlorobenzene	ND	8,000						0	0	25	H
2-Butanone	ND	8,000						0	0	25	H
2-Hexanone	ND	8,000						0	0	25	H
4-Methyl-2-pentanone	ND	8,000						0	0	25	H
Acetone	ND	8,000						0	0	25	H
Benzene	19,000	8,000						19,360	1.67	25	H
Benzyl chloride	ND	8,000						0	0	25	H
Bromodichloromethane	ND	8,000						0	0	25	H
Bromoform	ND	8,000						0	0	25	H
Bromomethane	ND	8,000						0	0	25	H
Carbon disulfide	ND	8,000						0	0	25	H
Carbon tetrachloride	ND	8,000						0	0	25	H
Chlorobenzene	ND	8,000						0	0	25	H
Chlorodibromomethane	ND	8,000						0	0	25	H
Chloroethane	ND	8,000						0	0	25	H
Chloroform	ND	8,000						0	0	25	H

RTI Laboratories - QC SUMMARY REPORT

WO#: 1108899

Date Reported: 12/7/2011
Revision v2

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R43330

Sample ID:	1109555-001ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43330
Client ID:	ZZZZZZ	Batch ID:	R43330	TestNo:	TO-15			Analysis Date:	10/7/2011	SeqNo:	845969

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	H
cis-1,2-Dichloroethene	ND	8,000						0	0	25	H
cis-1,3-dichloropropene	ND	8,000						0	0	25	H
Cyclohexane	10,000	16,000						10,080	0.791	25	JH
Dichlorodifluoromethane	ND	8,000						0	0	25	H
Ethyl acetate	ND	8,000						0	0	25	H
Ethylbenzene	ND	16,000						0	0	25	H
Heptane	ND	8,000						0	0	25	H
Hexachlorobutadiene	ND	16,000						0	0	25	H
m,p-Xylene	ND	16,000						0	0	25	H
Methylene chloride	ND	40,000						0	0	25	H
n-Hexane	12,000	16,000						11,440	1.39	25	JH
Naphthalene	ND	8,000						0	0	25	H
o-Xylene	ND	8,000						0	0	25	H
Propylene	ND	8,000						0	0	25	H
Styrene	ND	8,000						0	0	25	H
tert-Butyl Methyl Ether	ND	8,000						0	0	25	H
Tetrachloroethene	ND	8,000						0	0	25	H
Tetrahydrofuran	ND	8,000						0	0	25	H
Toluene	36,000	8,000						36,320	0.442	25	H
trans-1,2-Dichloroethene	ND	8,000						0	0	25	H
trans-1,3-dichloropropene	ND	8,000						0	0	25	H
Trichloroethene	ND	8,000						0	0	25	H
Trichlorofluoromethane	ND	8,000						0	0	25	H
Vinyl acetate	ND	8,000						0	0	25	H
Vinyl chloride	ND	8,000						0	0	25	H
Xylenes, Total	ND	24,000						0	0	25	H
Surr: 4-Bromofluorobenzene	110,000		100,000		114	70	130		0	25	H

RTI Laboratories

Run ID: VOA1_110921A **Run No.:** 42963

Analytical Run Date: 9/21/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 42924 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 092111	BFB_TUNE	TUNE	R42963	9/21/2011 3:13:00 PM	Robert Lynch		
CCV VOA1 092111	EPA_TO15	CCV	R42963	9/21/2011 4:41:00 PM	Robert Lynch		
RLVS1 VOA1 09211	EPA_TO15	RLVS	R42963	9/21/2011 5:23:00 PM	Robert Lynch		
BLK VOA1 092111	EPA_TO15	MBLK	R42963	9/21/2011 6:32:00 PM	Robert Lynch		
1108899-019A	EPA_TO15	SAMP	R42963	9/21/2011 7:16:00 PM	Robert Lynch	H	
1108899-019ADUP	EPA_TO15	DUP	R42963	9/21/2011 8:00:00 PM	Robert Lynch	H	
1108899-020A	EPA_TO15	SAMP	R42963	9/21/2011 8:50:00 PM	Robert Lynch	H	
1108899-021A	EPA_TO15	SAMP	R42963	9/21/2011 9:33:00 PM	Robert Lynch	H	
1108899-022A	EPA_TO15	SAMP	R42963	9/21/2011 10:17:00 PM	Robert Lynch	H	
1108899-023A	EPA_TO15	SAMP	R42963	9/21/2011 11:02:00 PM	Robert Lynch	H	
1108899-024A	EPA_TO15	SAMP	R42963	9/21/2011 11:49:00 PM	Robert Lynch	H	
1108899-027A	EPA_TO15	SAMP	R42963	9/22/2011 2:11:00 AM	Robert Lynch	H	
1108899-028A	EPA_TO15	SAMP	R42963	9/22/2011 3:02:00 AM	Robert Lynch	H	
1108899-029A	EPA_TO15	SAMP	R42963	9/22/2011 3:52:00 AM	Robert Lynch	H	
1108899-031A	EPA_TO15	SAMP	R42963	9/22/2011 5:30:00 AM	Robert Lynch	H	
1108899-032A	EPA_TO15	SAMP	R42963	9/22/2011 6:21:00 AM	Robert Lynch	H	
1108899-024A	EPA_TO15	SAMP	R42963	9/22/2011 7:09:00 AM	Robert Lynch	H	
1108899-025A	EPA_TO15	SAMP	R42963	9/22/2011 8:20:00 AM	Robert Lynch	H	
1108899-030A	EPA_TO15	SAMP	R42963	9/22/2011 9:05:00 AM	Robert Lynch	H	
1108899-033A	EPA_TO15	SAMP	R42963	9/22/2011 9:56:00 AM	Robert Lynch	H	
1108899-034A	EPA_TO15	SAMP	R42963	9/22/2011 10:47:00 AM	Robert Lynch	H	
1108899-026A	EPA_TO15	SAMP	R42963	9/22/2011 1:05:00 PM	Robert Lynch	H	
RLVS2 VOA1 09211	EPA_TO15	RLVS	R42963	9/22/2011 2:32:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42963

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835667	BFB1 VOA1 092111	BFB_TUNE	TUNE	\1\DATA\092111\	9/21/2011 3:13:0	1	R42963		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		98.9	98.9		0	0	0	0	0	0	0%	50	120	0%	
175	M		6.6	6.6		0	0	0	0	0	0	0%	4	9	0%	
176	M		99.1	99.1		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.1	6.1		0	0	0	0	0	0	0%	5	9	0%	
50	M		24.8	24.8		0	0	0	0	0	0	0%	8	40	0%	
75	M		48.7	48.7		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835668	CCV VOA1 092111	EPA_TO15	CCV	\1\DATA\092111\	9/21/2011 4:41:0	1	R42963		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	10.72	10.72		9.6	0	0	0.107	1	0	112%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.28	9.28		10	0	0	0.211	1	0	93%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.79	10.79		9.8	0	0	0.108	1	0	110%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.17	9.17		9.8	0	0	0.2	1	0	94%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.67	10.67		9.7	0	0	0.111	1	0	110%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.16	11.16		9.9	0	0	0.097	1	0	113%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.69	6.69		9.1	0	0	0.271	1	0	74%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.4	8.4		9.8	0	0	0.245	1	0	86%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.77	8.77		9.6	0	0	0.186	1	0	91%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.61	8.61		9.7	0	0	0.208	1	0	89%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.47	10.47		9.7	0	0	0.196	1	0	108%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.79	9.79		9.8	0	0	0.224	1	0	100%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.44	8.44		9.7	0	0	0.24	1	0	87%	70	130	0%	
1,3-Butadiene	A	ppbv	11.14	11.14		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	8.57	8.57		9.7	0	0	0.202	1	0	88%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835668	CCV VOA1 092111	EPA_TO15	CCV	\I\DATA\092111\9/21/2011 4:41:0		1	R42963		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	8.49	8.49		9.6	0	0	0.194	1	0	88%	70	130	0%	
1,4-Dioxane	A	ppbv	9.32	9.32		9.6	0	0	0.128	1	0	97%	70	130	0%	
2-Butanone	A	ppbv	11.05	11.05		9.9	0	0	0.287	1	0	112%	70	130	0%	
2-Hexanone	A	ppbv	9.77	9.77		9.8	0	0	0.135	1	0	100%	70	130	0%	
2-Propanol	A	ppbv	11.13	11.13		10.1	0	0	0.329	1	0	110%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.87	9.87		10	0	0	0.157	1	0	99%	70	130	0%	
Acetone	A	ppbv	10.81	10.81		10	0	0	0.43	1	0	108%	70	130	0%	
Benzene	A	ppbv	10.18	10.18		9.6	0	0	0.126	1	0	106%	70	130	0%	
Benzyl chloride	A	ppbv	8.95	8.95		9.7	0	0	0.155	1	0	92%	70	130	0%	
Bromodichloromethane	A	ppbv	9.21	9.21		9.6	0	0	0.156	1	0	96%	70	130	0%	
Bromoform	A	ppbv	8.7	8.7		9.6	0	0	0.197	1	0	91%	70	130	0%	
Bromomethane	A	ppbv	8.37	8.37		9.3	0	0	0.075	1	0	90%	70	130	0%	
Carbon disulfide	A	ppbv	10.69	10.69		9.7	0	0	0.093	1	0	110%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.6	9.6		9.5	0	0	0.114	1	0	101%	70	130	0%	M
Chlorobenzene	A	ppbv	9.46	9.46		9.9	0	0	0.275	1	0	96%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.75	8.75		9.2	0	0	0.165	1	0	95%	70	130	0%	
Chloroethane	A	ppbv	10.23	10.23		9.8	0	0	0.063	1	0	104%	70	130	0%	
Chloroform	A	ppbv	11.08	11.08		9.4	0	0	0.126	1	0	118%	70	130	0%	
Chloromethane	A	ppbv	12.05	12.05		9.8	0	0	0.104	1	0	123%	70	130	0%	M
cis-1,2-Dichloroethene	A	ppbv	10.35	10.35		9.8	0	0	0.107	1	0	106%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.12	9.12		9.5	0	0	0.166	1	0	96%	70	130	0%	
Cyclohexane	A	ppbv	11.76	11.76		9.8	0	0	0.684	2	0	120%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.74	9.74		9.2	0	0	0.086	1	0	106%	70	130	0%	
Ethanol	A	ppbv	9.47	9.47		9.2	0	0	1.962	5	0	103%	70	130	0%	
Ethyl acetate	A	ppbv	11.08	11.08		9.8	0	0	0.157	1	0	113%	70	130	0%	
Ethylbenzene	A	ppbv	9.59	9.59		9.8	0	0	0.737	2	0	98%	70	130	0%	
Heptane	A	ppbv	10.9	10.9		9.9	0	0	0.249	1	0	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	6.8	6.8		9.4	0	0	0.374	2	0	72%	70	130	0%	
m,p-Xylene	A	ppbv	19.68	19.68		19.2	0	0	0.524	2	0	103%	70	130	0%	
Methylene chloride	A	ppbv	11.34	11.34		10	0	0	2.077	5	0	113%	70	130	0%	
n-Hexane	A	ppbv	11.2	11.2		10.1	0	0	0.692	2	0	111%	70	130	0%	
Naphthalene	A	ppbv	7.19	7.19		9.2	0	0	0.247	1	0	78%	70	130	0%	
o-Xylene	A	ppbv	9.45	9.45		10	0	0	0.258	1	0	95%	70	130	0%	
Propylene	A	ppbv	11.41	11.41		10.2	0	0	0.075	1	0	112%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835668	CCV VOA1 092111	EPA_TO15	CCV	\I\DATA\092111'9/21/2011 4:41:0		1	R42963		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.02	9.02		9.8	0	0	0.263	1	0	92%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.03	10.03		9.9	0	0	0.228	1	0	101%	70	130	0%	
Tetrachloroethene	A	ppbv	9.05	9.05		9.6	0	0	0.148	1	0	94%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.35	11.35		10	0	0	0.201	1	0	114%	70	130	0%	
Toluene	A	ppbv	9.5	9.5		9.8	0	0	0.158	1	0	97%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.84	10.84		9.8	0	0	0.117	1	0	111%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.63	8.63		9.1	0	0	0.171	1	0	95%	70	130	0%	
Trichloroethene	A	ppbv	9.3	9.3		9.6	0	0	0.119	1	0	97%	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	11.19	11.19		9.9	0	0	0.266	1	0	113%	70	130	0%	
Vinyl chloride	A	ppbv	10.66	10.66		9.4	0	0	0.072	1	0	113%	70	130	0%	
Xylenes, Total	C	ppbv	29.13	29.13		29.2	0	0	0.782	3	0	100%	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	11.75	11.75		12.5	0	0	0	0	0	94%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
835669	RLVS1 VOA1 09211	EPA_TO15	RLVS	\I\DATA\092111'9/21/2011 5:23:0		1	R42963		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	0.81	0.81		0.996	0	0	0.107	1	0	81%	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	0.87	0.87		0.98	0	0	0.108	1	0	89%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.86	0.86		0.98	0	0	0.2	1	0	88%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.01	1.01		0.97	0	0	0.111	1	0	104%	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	1.52	1.52		0.91	0	0	0.271	1	0	167%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.36	1.36		0.98	0	0	0.245	1	0	139%	70	130	0%	S
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	1.5	1.5		0.97	0	0	0.208	1	0	155%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.06	1.06		0.97	0	0	0.196	1	0	109%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.92	0.92		0.98	0	0	0.224	1	0	94%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092111\09211103.D Vial: 3
Acq On : 21 Sep 2011 4:41 pm Operator: RACHEL HILL
Sample : CCV VOA1 092111 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	80	0.00
2	T	Propylene	1.225	1.370	-11.8	83	0.00
3	T	Dichlorodifluoromethane	3.092	3.273	-5.9	80	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.025	2.147	-6.0	80	0.00
5	T	Chloromethane	1.302	1.651	-26.8	91	0.00
6	T	Vinyl chloride	1.810	2.053	-13.4	78	0.00
7	T	1,3-Butadiene	1.413	1.606	-13.7	77	0.00
8	T	Bromomethane	1.349	1.215	9.9	76	0.00
9	T	Chloroethane	0.710	0.789	-11.1	83	0.00
10	T	Trichlorofluoromethane	2.933	3.065	-4.5	78	0.00
11	T	Ethanol	0.281	0.289	-2.8	88	0.00
12	T	Freon113	2.328	2.562	-10.1	76	0.00
13	T	1,1-Dichloroethene	1.971	2.222	-12.7	82	0.00
14	T	Acetone	1.875	2.027	-8.1	71	0.00
15	T	Carbon disulfide	3.079	3.393	-10.2	82	0.00
16	T	2-Propanol	1.628	1.794	-10.2	76	0.00
17	T	Methylene chloride	1.493	1.694	-13.5	80	0.00
18	T	tert-Butyl Methyl Ether	2.561	2.595	-1.3	67	0.00
19	T	trans-1,2-Dichloroethene	1.844	2.041	-10.7	77	0.00
20	T	n-Hexane	2.043	2.265	-10.9	77	0.00
21	T	1,1-Dichloroethane	2.096	2.306	-10.0	75	0.00
22	T	Vinyl acetate	2.893	3.269	-13.0	71	0.00
23	T	cis-1,2-Dichloroethene	1.089	1.150	-5.6	75	0.00
24	T	2-Butanone	1.856	2.072	-11.6	76	0.00
25	T	Ethyl acetate	2.392	2.704	-13.0	77	0.00
26	T	Tetrahydrofuran	1.265	1.436	-13.5	73	0.00
27	T	Chloroform	2.363	2.673	-13.1	74	-0.01
28	T	1,1,1-Trichloroethane	2.274	2.539	-11.7	71	0.00
29	T	Cyclohexane	2.080	2.496	-20.0	75	0.00
30	T	Carbon tetrachloride	2.045	2.067	-1.1	69	0.00
31	T	Benzene	2.739	2.905	-6.1	72	0.00
32	T	1,2-Dichloroethane	1.367	1.475	-7.9	69	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	85	0.00
34	T	Heptane	0.885	0.975	-10.2	74	0.00
35	T	Trichloroethene	0.447	0.433	3.1	74	0.00
36	T	1,2-Dichloropropane	0.346	0.346	0.0	74	0.00
37	T	1,4-Dioxane	0.112	0.109	2.7	84	0.00
38	T	Bromodichloromethane	0.643	0.617	4.0	73	0.00
39	T	cis-1,3-Dichloropropene	0.512	0.491	4.1	73	0.00
40	T	4-Methyl-2-pentanone	0.243	0.239	1.6	75	0.00
41	T	Toluene	0.894	0.867	3.0	75	0.00
42	T	trans-1,3-Dichloropropene	0.452	0.429	5.1	73	0.00
43	T	1,1,2-Trichloroethane	0.306	0.287	6.2	75	0.00
44	T	Tetrachloroethene	0.491	0.463	5.7	74	0.00
45	T	2-Hexanone	0.515	0.514	0.2	77	0.00
46	T	Chlorodibromomethane	0.491	0.438	10.8	71	0.00
47	T	1,2-Dibromoethane	0.451	0.412	8.6	72	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092111\09211103.D Vial: 3
Acq On : 21 Sep 2011 4:41 pm Operator: RACHEL HILL
Sample : CCV VOA1 092111 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
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)
49	T	Chlorobenzene	0.884	0.845	4.4	74	0.00
50	T	Ethylbenzene	1.488	1.455	2.2	76	0.00
51	T	m,p-Xylene	1.229	1.260	-2.5	73	0.00
52	T	o-Xylene	1.114	1.053	5.5	75	0.00
53	T	Styrene	0.778	0.716	8.0	73	0.00
54	T	Bromoform	0.583	0.528	9.4	70	0.00
55	S	4-Bromofluorobenzene	0.609	0.572	6.1	74	0.00
56	T	1,1,2,2-Tetrachloroethane	0.824	0.765	7.2	72	0.00
57	T	4-Ethyltoluene	1.305	1.161	11.0	72	0.00
58	T	1,3,5-Trimethylbenzene	1.106	0.963	12.9	70	0.00
59	T	1,2,4-Trimethylbenzene	1.050	0.900	14.3	70	0.00
60	T	1,3-Dichlorobenzene	0.678	0.599	11.7	70	0.00
61	T	1,4-Dichlorobenzene	0.638	0.564	11.6	70	0.00
62	T	Benzyl chloride	0.821	0.757	7.8	69	0.00
63	T	1,2-Dichlorobenzene	0.636	0.564	11.3	72	0.00
64	T	1,2,4-Trichlorobenzene	0.163	0.120	26.4	67	0.00
65	T	Hexachlorobutadiene	0.410	0.296	27.8	67	0.00
66		Naphthalene	0.269	0.210	21.9	69	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092111\09211103.D Vial: 3
Acq On : 21 Sep 2011 4:41 pm Operator: RACHEL HILL
Sample : CCV VOA1 092111 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 21 21:24 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	412430	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1279909	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	799258	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	457497	11.75	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 94.00%				
Target Compounds							Qvalue
2) Propylene	5.51	41	461109	11.41	ppbv		97
3) Dichlorodifluoromethane	5.59	85	993605	9.74	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	673126	10.07	ppbv	#	68
5) Chloromethane	6.00	50	517538m	12.05	ppbv		
6) Vinyl chloride	6.21	62	636583	10.66	ppbv	#	99
7) 1,3-Butadiene	6.27	39	519369	11.14	ppbv		95
8) Bromomethane	6.85	94	372753	8.37	ppbv	#	97
9) Chloroethane	7.00	64	239499	10.23	ppbv	#	95
10) Trichlorofluoromethane	7.33	101	970885	10.03	ppbv	#	97
11) Ethanol	7.57	45	87871	9.47	ppbv		99
12) Freon113	7.99	101	828253	10.79	ppbv		87
13) 1,1-Dichloroethene	8.09	61	725878	11.16	ppbv	#	85
14) Acetone	8.19	43	668882	10.81	ppbv	#	90
15) Carbon disulfide	8.46	76	1085931	10.69	ppbv	#	99
16) 2-Propanol	8.24	45	597858	11.13	ppbv	#	1
17) Methylene chloride	8.75	49	558864	11.34	ppbv	#	74
18) tert-Butyl Methyl Ether	8.95	73	847653	10.03	ppbv	#	86
19) trans-1,2-Dichloroethene	9.03	61	659826	10.84	ppbv	#	80
20) n-Hexane	9.22	57	754929	11.20	ppbv	#	86
21) 1,1-Dichloroethane	9.60	63	738149	10.67	ppbv	#	97
22) Vinyl acetate	9.53	43	1067886	11.19	ppbv	#	94
23) cis-1,2-Dichloroethene	10.28	96	371711	10.35	ppbv	#	79
24) 2-Butanone	10.25	43	676822	11.05	ppbv	#	86
25) Ethyl acetate	10.20	43	874462	11.08	ppbv	#	99
26) Tetrahydrofuran	10.59	42	473818	11.35	ppbv	#	85
27) Chloroform	10.60	83	864330	11.08	ppbv		99
28) 1,1,1-Trichloroethane	10.85	97	804129	10.72	ppbv	#	92
29) Cyclohexane	10.86	56	806987	11.76	ppbv		83
30) Carbon tetrachloride	11.01	117	647856m	9.60	ppbv		
31) Benzene	11.30	78	920110	10.18	ppbv		93
32) 1,2-Dichloroethane	11.37	62	472170	10.47	ppbv	#	97
34) Heptane	11.34	43	988320	10.90	ppbv	#	85
35) Trichloroethene	12.03	130	425573	9.30	ppbv		92
36) 1,2-Dichloropropane	12.38	63	347169	9.79	ppbv		97
37) 1,4-Dioxane	12.46	88	107143	9.32	ppbv	#	78
38) Bromodichloromethane	12.67	83	606368	9.21	ppbv		98
39) cis-1,3-Dichloropropene	13.22	75	477886	9.12	ppbv		95
40) 4-Methyl-2-pentanone	13.33	58	245197	9.87	ppbv	#	91
41) Toluene	13.62	91	870240	9.50	ppbv		96
42) trans-1,3-Dichloropropene	13.93	75	399415	8.63	ppbv		95
43) 1,1,2-Trichloroethane	14.20	97	287539	9.17	ppbv		96

(#) = qualifier out of range (m) = manual integration
09211103.D 091911V1.M Thu Sep 29 11:12:32 2011 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092111\09211103.D Vial: 3
Acq On : 21 Sep 2011 4:41 pm Operator: RACHEL HILL
Sample : CCV VOA1 092111 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 21 21:24 2011 Quant Results File: 091911V1.RES

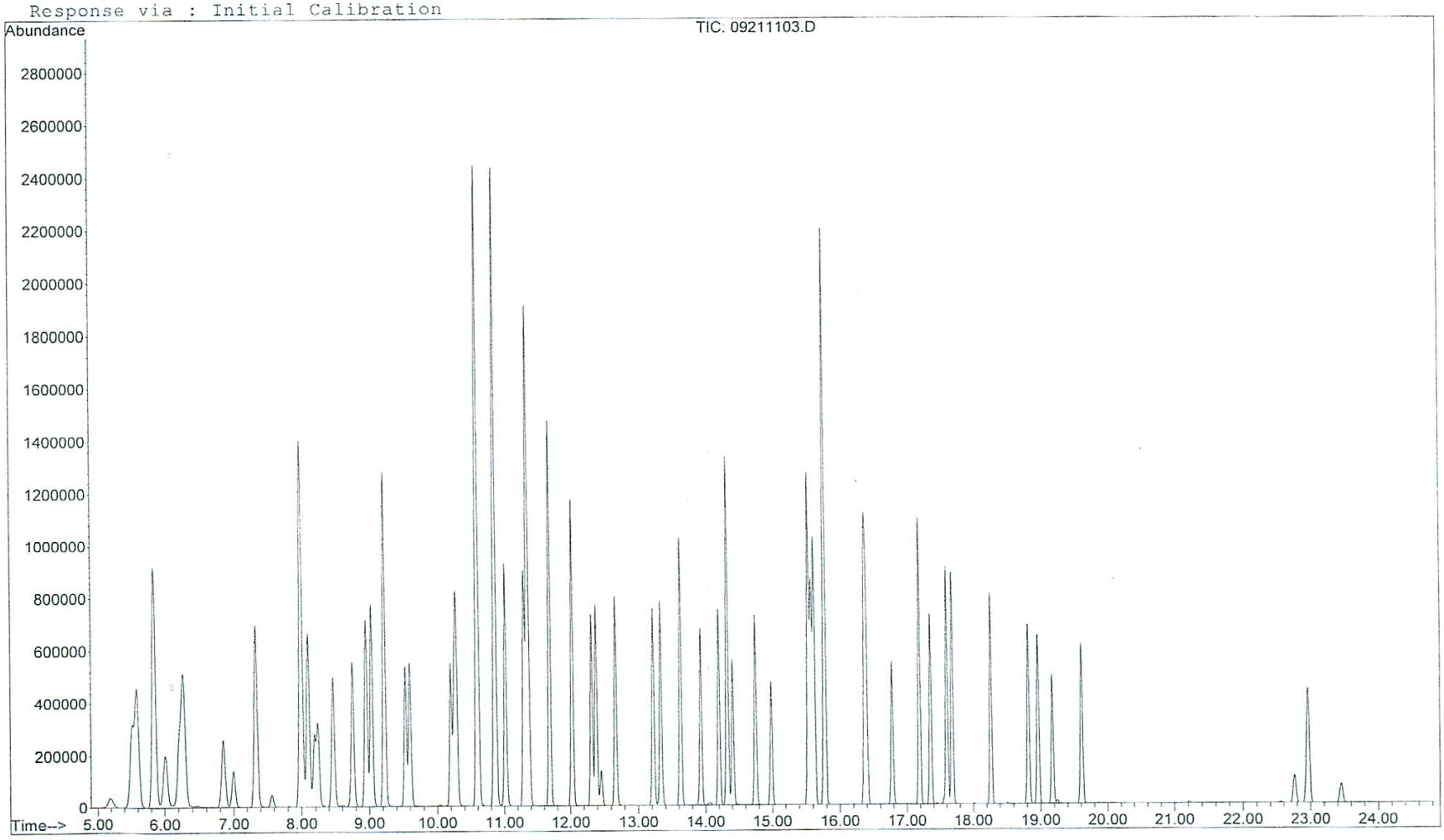
Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.33	166	455011	9.05	ppbv		98
45) 2-Hexanone	14.41	43	515726	9.77	ppbv		90
46) Chlorodibromomethane	14.75	129	439568	8.75	ppbv		99
47) 1,2-Dibromoethane	14.98	107	405425	8.77	ppbv		100
49) Chlorobenzene	15.58	112	534732	9.46	ppbv	#	84
50) Ethylbenzene	15.62	91	911951	9.59	ppbv		90
51) m,p-Xylene	15.77	91	1546432	19.68	ppbv		89
52) o-Xylene	16.37	91	673389	9.45	ppbv	#	86
53) Styrene	16.40	104	448878	9.02	ppbv		96
54) Bromoform	16.78	173	324213	8.70	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	488892	9.28	ppbv	#	98
57) 4-Ethyltoluene	17.60	105	727513	8.72	ppbv		96
58) 1,3,5-Trimethylbenzene	17.68	105	597313	8.44	ppbv		96
59) 1,2,4-Trimethylbenzene	18.26	105	563716	8.40	ppbv		97
60) 1,3-Dichlorobenzene	18.82	146	371341	8.57	ppbv		97
61) 1,4-Dichlorobenzene	18.96	146	346369	8.49	ppbv		97
62) Benzyl chloride	19.17	91	469743	8.95	ppbv		96
63) 1,2-Dichlorobenzene	19.61	146	349807	8.61	ppbv		97
64) 1,2,4-Trichlorobenzene	22.77	180	69805	6.69	ppbv		98
65) Hexachlorobutadiene	22.97	225	178153	6.80	ppbv		99
66) Naphthalene	23.45	128	123756	7.19	ppbv		98

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

Data File : C:\HPCHEM\1\DATA\092111\09211103.D Vial: 3
Acq On : 21 Sep 2011 4:41 pm Operator: RACHEL HILL
Sample : CCV VOA1 092111 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 21 21:24 2011 Quant Results File: 091911V1.RES

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110922A **Run No.:** 43000

Analytical Run Date: 9/22/2011 **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
BFB1 VOA1 092211	BFB_TUNE	TUNE	R43000	9/22/2011 3:21:00 PM	Robert Lynch		
CCV VOA1 092211	EPA_TO15	CCV	R43000	9/22/2011 4:54:00 PM	Robert Lynch		
RLVS1 VOA1 09221	EPA_TO15	RLVS	R43000	9/22/2011 5:39:00 PM	Robert Lynch		
BLK VOA1 092211	EPA_TO15	MBLK	R43000	9/22/2011 6:29:00 PM	Robert Lynch		
1108888-012A	EPA_TO15	SAMP	R43000	9/22/2011 7:13:00 PM	Robert Lynch	H	
1108899-035A	EPA_TO15	SAMP	R43000	9/22/2011 8:04:00 PM	Robert Lynch	H	
1108899-036A	EPA_TO15	SAMP	R43000	9/22/2011 8:54:00 PM	Robert Lynch	H	
1108899-001A	EPA_TO15	SAMP	R43000	9/22/2011 9:38:00 PM	Robert Lynch	H	
1108899-001ADUP	EPA_TO15	DUP	R43000	9/22/2011 10:22:00 PM	Robert Lynch	H	
1108899-002A	EPA_TO15	SAMP	R43000	9/22/2011 11:12:00 PM	Robert Lynch	H	
1108899-003A	EPA_TO15	SAMP	R43000	9/23/2011 12:03:00 AM	Robert Lynch	H	
1108899-004A	EPA_TO15	SAMP	R43000	9/23/2011 12:50:00 AM	Robert Lynch	H	
1108899-005A	EPA_TO15	SAMP	R43000	9/23/2011 1:38:00 AM	Robert Lynch	H	
1108899-024A	EPA_TO15	SAMP	R43000	9/23/2011 5:32:00 AM	Robert Lynch	H	
1108899-007A	EPA_TO15	SAMP	R43000	9/23/2011 7:03:00 AM	Robert Lynch	H	
1108899-039A	EPA_TO15	SAMP	R43000	9/23/2011 7:54:00 AM	Robert Lynch	H	
1108899-040A	EPA_TO15	SAMP	R43000	9/23/2011 8:36:00 AM	Robert Lynch	H	
1108899-006A	EPA_TO15	SAMP	R43000	9/23/2011 9:24:00 AM	Robert Lynch	H	
1108899-008A	EPA_TO15	SAMP	R43000	9/23/2011 10:09:00 AM	Robert Lynch	H	
1108899-009A	EPA_TO15	SAMP	R43000	9/23/2011 10:54:00 AM	Robert Lynch	H	
1108899-011A	EPA_TO15	SAMP	R43000	9/23/2011 12:30:00 PM	Robert Lynch	H	
1108899-012A	EPA_TO15	SAMP	R43000	9/23/2011 1:19:00 PM	Robert Lynch	H	
RLVS1 VOA1 09221	EPA_TO15	RLVS	R43000	9/23/2011 3:03:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43000

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836574	BFB1 VOA1 092211	BFB_TUNE	TUNE	\I\DATA\092211	9/22/2011 3:21:0	1	R43000		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.7	0.7		0	0	0	0	0	0	0%	0	2	0%	
174	M		69.6	69.6		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.3	7.3		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.7	97.7		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	
50	M		28.8	28.8		0	0	0	0	0	0	0%	8	40	0%	
75	M		55.6	55.6		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		7.5	7.5		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836575	CCV VOA1 092211	EPA_TO15	CCV	\I\DATA\092211	9/22/2011 4:54:0	1	R43000		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	10.46	10.46		9.6	0	0	0.107	1	0	109%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.77	9.77		10	0	0	0.211	1	0	98%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.93	10.93		9.8	0	0	0.108	1	0	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	8.8	8.8		9.8	0	0	0.2	1	0	90%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.45	10.45		9.7	0	0	0.111	1	0	108%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.19	11.19		9.9	0	0	0.097	1	0	113%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.03	7.03		9.1	0	0	0.271	1	0	77%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	8.76	8.76		9.8	0	0	0.245	1	0	89%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.49	8.49		9.6	0	0	0.186	1	0	88%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.27	9.27		9.7	0	0	0.208	1	0	96%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.17	10.17		9.7	0	0	0.196	1	0	105%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.49	9.49		9.8	0	0	0.224	1	0	97%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.56	8.56		9.7	0	0	0.24	1	0	88%	70	130	0%	
1,3-Butadiene	A	ppbv	10.58	10.58		9.8	0	0	0.152	1	0	108%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.09	9.09		9.7	0	0	0.202	1	0	94%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836575	CCV VOA1 092211	EPA_TO15	CCV	\I\DATA\092211\	9/22/2011 4:54:0	1	R43000		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.04	9.04		9.6	0	0	0.194	1	0	94%	70	130	0%	
1,4-Dioxane	A	ppbv	8.73	8.73		9.6	0	0	0.128	1	0	91%	70	130	0%	
2-Butanone	A	ppbv	10.19	10.19		9.9	0	0	0.287	1	0	103%	70	130	0%	
2-Hexanone	A	ppbv	9.31	9.31		9.8	0	0	0.135	1	0	95%	70	130	0%	
2-Propanol	A	ppbv	10.76	10.76		10.1	0	0	0.329	1	0	107%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.33	9.33		10	0	0	0.157	1	0	93%	70	130	0%	
Acetone	A	ppbv	10.36	10.36		10	0	0	0.43	1	0	104%	70	130	0%	
Benzene	A	ppbv	9.9	9.9		9.6	0	0	0.126	1	0	103%	70	130	0%	
Benzyl chloride	A	ppbv	9.33	9.33		9.7	0	0	0.155	1	0	96%	70	130	0%	
Bromodichloromethane	A	ppbv	8.9	8.9		9.6	0	0	0.156	1	0	93%	70	130	0%	
Bromoform	A	ppbv	8.65	8.65		9.6	0	0	0.197	1	0	90%	70	130	0%	
Bromomethane	A	ppbv	8.48	8.48		9.3	0	0	0.075	1	0	91%	70	130	0%	
Carbon disulfide	A	ppbv	10.75	10.75		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.39	9.39		9.5	0	0	0.114	1	0	99%	70	130	0%	M
Chlorobenzene	A	ppbv	9.24	9.24		9.9	0	0	0.275	1	0	93%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.47	8.47		9.2	0	0	0.165	1	0	92%	70	130	0%	
Chloroethane	A	ppbv	10.32	10.32		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	10.88	10.88		9.4	0	0	0.126	1	0	116%	70	130	0%	
Chloromethane	A	ppbv	12.31	12.31		9.8	0	0	0.104	1	0	126%	70	130	0%	M
cis-1,2-Dichloroethene	A	ppbv	10.13	10.13		9.8	0	0	0.107	1	0	103%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	8.78	8.78		9.5	0	0	0.166	1	0	92%	70	130	0%	
Cyclohexane	A	ppbv	11.61	11.61		9.8	0	0	0.684	2	0	118%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.89	9.89		9.2	0	0	0.086	1	0	108%	70	130	0%	
Ethanol	A	ppbv	9.69	9.69		9.2	0	0	1.962	5	0	105%	70	130	0%	
Ethyl acetate	A	ppbv	10.1	10.1		9.8	0	0	0.157	1	0	103%	70	130	0%	
Ethylbenzene	A	ppbv	9.28	9.28		9.8	0	0	0.737	2	0	95%	70	130	0%	
Heptane	A	ppbv	10.65	10.65		9.9	0	0	0.249	1	0	108%	70	130	0%	
Hexachlorobutadiene	A	ppbv	6.64	6.64		9.4	0	0	0.374	2	0	71%	70	130	0%	
m,p-Xylene	A	ppbv	19.11	19.11		19.2	0	0	0.524	2	0	100%	70	130	0%	
Methylene chloride	A	ppbv	11.31	11.31		10	0	0	2.077	5	0	113%	70	130	0%	
n-Hexane	A	ppbv	11.1	11.1		10.1	0	0	0.692	2	0	110%	70	130	0%	
Naphthalene	A	ppbv	7.24	7.24		9.2	0	0	0.247	1	0	79%	70	130	0%	
o-Xylene	A	ppbv	9.18	9.18		10	0	0	0.258	1	0	92%	70	130	0%	
Propylene	A	ppbv	11.53	11.53		10.2	0	0	0.075	1	0	113%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836575	CCV VOA1 092211	EPA_TO15	CCV	\1\DATA\092211	9/22/2011 4:54:0	1	R43000		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	8.94	8.94		9.8	0	0	0.263	1	0	91%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.4	9.4		9.9	0	0	0.228	1	0	95%	70	130	0%	
Tetrachloroethene	A	ppbv	8.94	8.94		9.6	0	0	0.148	1	0	93%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.92	10.92		10	0	0	0.201	1	0	109%	70	130	0%	
Toluene	A	ppbv	9.19	9.19		9.8	0	0	0.158	1	0	94%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.67	10.67		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.27	8.27		9.1	0	0	0.171	1	0	91%	70	130	0%	
Trichloroethene	A	ppbv	9.11	9.11		9.6	0	0	0.119	1	0	95%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.05	10.05		9.6	0	0	0.148	1	0	105%	70	130	0%	
Vinyl acetate	A	ppbv	10.73	10.73		9.9	0	0	0.266	1	0	108%	70	130	0%	
Vinyl chloride	A	ppbv	10.15	10.15		9.4	0	0	0.072	1	0	108%	70	130	0%	
Xylenes, Total	C	ppbv	28.29	28.29		29.2	0	0	0.782	3	0	97%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		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	12.06	12.06		12.5	0	0	0	0	0	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836576	RLVS1 VOA1 09221	EPA_TO15	RLVS	\1\DATA\092211	9/22/2011 5:39:0	1	R43000		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	0.83	0.83		0.996	0	0	0.107	1	0	83%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.21	1.21		1	0	0	0.211	1	0	121%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.87	0.87		0.98	0	0	0.108	1	0	89%	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	1.03	1.03		0.97	0	0	0.111	1	0	106%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.02	1.02		0.99	0	0	0.097	1	0	103%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.38	1.38		0.91	0	0	0.271	1	0	152%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.44	1.44		0.98	0	0	0.245	1	0	147%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.82	0.82		0.96	0	0	0.186	1	0	85%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.46	1.46		0.97	0	0	0.208	1	0	151%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.04	1.04		0.97	0	0	0.196	1	0	107%	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\092211\09221103.D Vial: 3
Acq On : 22 Sep 2011 4:54 pm Operator: RACHEL HILL
Sample : CCV VOA1 092211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	80	0.00
2	T	Propylene	1.225	1.385	-13.1	84	0.00
3	T	Dichlorodifluoromethane	3.092	3.323	-7.5	81	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.025	2.182	-7.8	81	0.00
5	T	Chloromethane	1.302	1.687	-29.6	92	0.00
6	T	Vinyl chloride	1.810	1.954	-8.0	74	0.00
7	T	1,3-Butadiene	1.413	1.526	-8.0	73	0.00
8	T	Bromomethane	1.349	1.230	8.8	77	0.00
9	T	Chloroethane	0.710	0.796	-12.1	83	0.00
10	T	Trichlorofluoromethane	2.933	3.069	-4.6	78	0.00
11	T	Ethanol	0.281	0.296	-5.3	90	0.00
12	T	Freon113	2.328	2.595	-11.5	77	0.00
13	T	1,1-Dichloroethene	1.971	2.228	-13.0	81	0.00
14	T	Acetone	1.875	1.944	-3.7	68	0.00
15	T	Carbon disulfide	3.079	3.413	-10.8	82	0.00
16	T	2-Propanol	1.628	1.735	-6.6	74	-0.01
17	T	Methylene chloride	1.493	1.689	-13.1	79	0.00
18	T	tert-Butyl Methyl Ether	2.561	2.430	5.1	62	0.00
19	T	trans-1,2-Dichloroethene	1.844	2.009	-8.9	75	0.00
20	T	n-Hexane	2.043	2.245	-9.9	76	0.00
21	T	1,1-Dichloroethane	2.096	2.257	-7.7	73	0.00
22	T	Vinyl acetate	2.893	3.137	-8.4	68	0.00
23	T	cis-1,2-Dichloroethene	1.089	1.126	-3.4	73	0.00
24	T	2-Butanone	1.856	1.910	-2.9	70	0.00
25	T	Ethyl acetate	2.392	2.464	-3.0	70	0.00
26	T	Tetrahydrofuran	1.265	1.381	-9.2	70	0.00
27	T	Chloroform	2.363	2.624	-11.0	72	0.00
28	T	1,1,1-Trichloroethane	2.274	2.478	-9.0	69	0.00
29	T	Cyclohexane	2.080	2.463	-18.4	74	0.00
30	T	Carbon tetrachloride	2.045	2.021	1.2	68	0.00
31	T	Benzene	2.739	2.824	-3.1	70	0.00
32	T	1,2-Dichloroethane	1.367	1.433	-4.8	67	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	85	0.00
34	T	Heptane	0.885	0.952	-7.6	72	0.00
35	T	Trichloroethene	0.447	0.424	5.1	72	0.00
36	T	1,2-Dichloropropane	0.346	0.336	2.9	72	0.00
37	T	1,4-Dioxane	0.112	0.102	8.9	79	0.00
38	T	Bromodichloromethane	0.643	0.596	7.3	71	0.00
39	T	cis-1,3-Dichloropropene	0.512	0.473	7.6	70	0.00
40	T	4-Methyl-2-pentanone	0.243	0.226	7.0	71	0.00
41	T	Toluene	0.894	0.839	6.2	73	0.00
42	T	trans-1,3-Dichloropropene	0.452	0.411	9.1	70	0.00
43	T	1,1,2-Trichloroethane	0.306	0.275	10.1	72	0.00
44	T	Tetrachloroethene	0.491	0.457	6.9	73	0.00
45	T	2-Hexanone	0.515	0.489	5.0	73	0.00
46	T	Chlorodibromomethane	0.491	0.424	13.6	69	0.00
47	T	1,2-Dibromoethane	0.451	0.399	11.5	70	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092211\09221103.D Vial: 3
Acq On : 22 Sep 2011 4:54 pm Operator: RACHEL HILL
Sample : CCV VOA1 092211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
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)
49	T	Chlorobenzene	0.884	0.825	6.7	72	0.00
50	T	Ethylbenzene	1.488	1.409	5.3	74	0.00
51	T	m,p-Xylene	1.229	1.223	0.5	71	0.00
52	T	o-Xylene	1.114	1.023	8.2	73	0.00
53	T	Styrene	0.778	0.710	8.7	72	0.00
54	T	Bromoform	0.583	0.525	9.9	69	0.00
55	S	4-Bromofluorobenzene	0.609	0.588	3.4	76	0.00
56	T	1,1,2,2-Tetrachloroethane	0.824	0.805	2.3	76	0.00
57	T	4-Ethyltoluene	1.305	1.174	10.0	72	0.00
58	T	1,3,5-Trimethylbenzene	1.106	0.977	11.7	71	0.00
59	T	1,2,4-Trimethylbenzene	1.050	0.938	10.7	73	0.00
60	T	1,3-Dichlorobenzene	0.678	0.636	6.2	74	0.00
61	T	1,4-Dichlorobenzene	0.638	0.601	5.8	74	0.00
62	T	Benzyl chloride	0.821	0.789	3.9	71	0.00
63	T	1,2-Dichlorobenzene	0.636	0.607	4.6	77	0.00
64	T	1,2,4-Trichlorobenzene	0.163	0.126	22.7	70	0.00
65	T	Hexachlorobutadiene	0.410	0.289	29.5	66	0.00
66		Naphthalene	0.269	0.212	21.2	69	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092211\09221103.D Vial: 3
Acq On : 22 Sep 2011 4:54 pm Operator: RACHEL HILL
Sample : CCV VOA1 092211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 22 20:13 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	410341	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.68	114	1282457	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	797361	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	468588	12.06	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 96.48%				
Target Compounds							Qvalue
2) Propylene	5.51	41	463817	11.53	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1003645	9.89	ppbv		98
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	680335	10.23	ppbv	#	68
5) Chloromethane	6.01	50	526035m	12.31	ppbv		
6) Vinyl chloride	6.21	62	603100	10.15	ppbv	#	99
7) 1,3-Butadiene	6.27	39	490988	10.58	ppbv		96
8) Bromomethane	6.85	94	375485	8.48	ppbv	#	97
9) Chloroethane	6.99	64	240475	10.32	ppbv	#	95
10) Trichlorofluoromethane	7.33	101	967314	10.05	ppbv	#	97
11) Ethanol	7.57	45	89473	9.69	ppbv		99
12) Freon113	7.99	101	834955	10.93	ppbv		87
13) 1,1-Dichloroethene	8.09	61	724178	11.19	ppbv	#	85
14) Acetone	8.19	43	638068	10.36	ppbv		92
15) Carbon disulfide	8.46	76	1086785	10.75	ppbv	#	99
16) 2-Propanol	8.23	45	575198	10.76	ppbv		87
17) Methylene chloride	8.75	49	554290	11.31	ppbv	#	74
18) tert-Butyl Methyl Ether	8.95	73	789812	9.40	ppbv	#	85
19) trans-1,2-Dichloroethene	9.03	61	646258	10.67	ppbv	#	81
20) n-Hexane	9.22	57	744330	11.10	ppbv	#	86
21) 1,1-Dichloroethane	9.59	63	718622	10.45	ppbv	#	97
22) Vinyl acetate	9.53	43	1019510	10.73	ppbv	#	94
23) cis-1,2-Dichloroethene	10.28	96	362215	10.13	ppbv	#	79
24) 2-Butanone	10.25	43	620702	10.19	ppbv	#	87
25) Ethyl acetate	10.19	43	792825	10.10	ppbv	#	98
26) Tetrahydrofuran	10.58	42	453403	10.92	ppbv	#	85
27) Chloroform	10.60	83	844297	10.88	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	780872	10.46	ppbv	#	92
29) Cyclohexane	10.86	56	792488	11.61	ppbv	#	83
30) Carbon tetrachloride	11.02	117	630232m	9.39	ppbv		
31) Benzene	11.29	78	890033	9.90	ppbv		93
32) 1,2-Dichloroethane	11.37	62	456362	10.17	ppbv	#	97
34) Heptane	11.34	43	966985	10.65	ppbv	#	85
35) Trichloroethene	12.02	130	417676	9.11	ppbv		92
36) 1,2-Dichloropropane	12.38	63	337435	9.49	ppbv		96
37) 1,4-Dioxane	12.46	88	100605	8.73	ppbv	#	79
38) Bromodichloromethane	12.67	83	587127	8.90	ppbv		98
39) cis-1,3-Dichloropropene	13.22	75	461271	8.78	ppbv		95
40) 4-Methyl-2-pentanone	13.33	58	232228	9.33	ppbv	#	91
41) Toluene	13.63	91	843590	9.19	ppbv		96
42) trans-1,3-Dichloropropene	13.93	75	383439	8.27	ppbv		95
43) 1,1,2-Trichloroethane	14.20	97	276290	8.80	ppbv		95

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092211\09221103.D Vial: 3
Acq On : 22 Sep 2011 4:54 pm Operator: RACHEL HILL
Sample : CCV VOA1 092211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 22 20:13 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

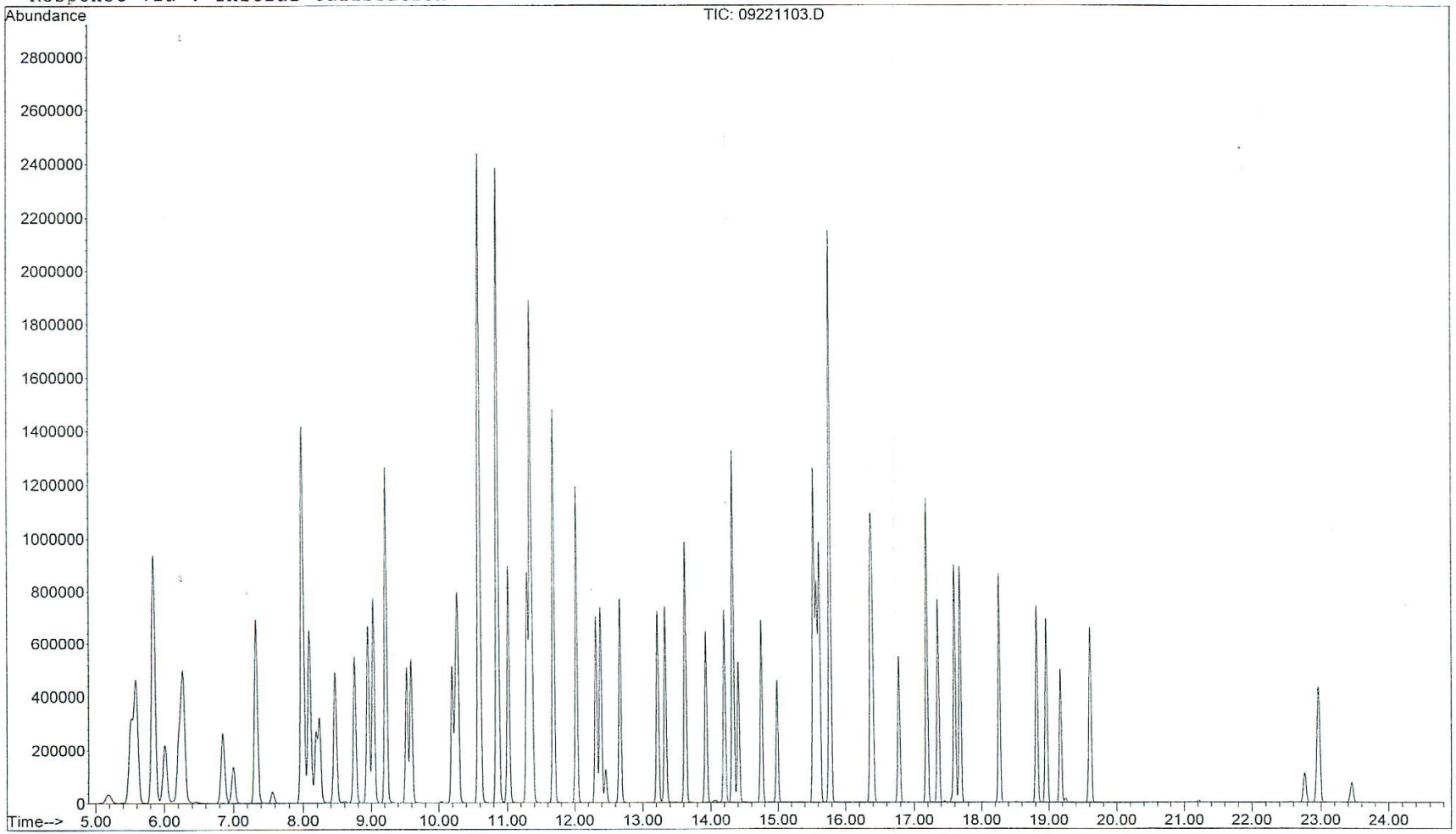
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.33	166	450375	8.94	ppbv		98
45) 2-Hexanone	14.41	43	491974	9.31	ppbv		91
46) Chlorodibromomethane	14.75	129	426187	8.47	ppbv		99
47) 1,2-Dibromoethane	14.99	107	393186	8.49	ppbv		100
49) Chlorobenzene	15.58	112	520683	9.24	ppbv	#	84
50) Ethylbenzene	15.62	91	880626	9.28	ppbv		89
51) m,p-Xylene	15.77	91	1498305	19.11	ppbv		89
52) o-Xylene	16.37	91	652597	9.18	ppbv	#	87
53) Styrene	16.39	104	443872	8.94	ppbv		96
54) Bromoform	16.78	173	321687	8.65	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	513321	9.77	ppbv	#	98
57) 4-Ethyltoluene	17.60	105	734201	8.82	ppbv		95
58) 1,3,5-Trimethylbenzene	17.68	105	604338	8.56	ppbv		96
59) 1,2,4-Trimethylbenzene	18.26	105	586252	8.76	ppbv		97
60) 1,3-Dichlorobenzene	18.82	146	393344	9.09	ppbv		97
61) 1,4-Dichlorobenzene	18.96	146	367826	9.04	ppbv		97
62) Benzyl chloride	19.17	91	488387	9.33	ppbv		96
63) 1,2-Dichlorobenzene	19.61	146	375627	9.27	ppbv		97
64) 1,2,4-Trichlorobenzene	22.76	180	73153	7.03	ppbv		97
65) Hexachlorobutadiene	22.96	225	173573	6.64	ppbv		99
66) Naphthalene	23.45	128	124397	7.24	ppbv		99

(#) = qualifier out of range (m) = manual integration
09221103.D 091911V1.M Thu Sep 29 10:49:34 2011 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092211\09221103.D Vial: 3
Acq On : 22 Sep 2011 4:54 pm Operator: RACHEL HILL
Sample : CCV VOA1 092211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 22 20:13 2011 Quant Results File: 091911V1.RES

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110923A **Run No.:** 43035

Analytical Run Date: 9/23/2011 **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
BFB1 VOA1 092311	BFB_TUNE	TUNE	R43035	9/23/2011 3:53:00 PM	Robert Lynch		
CCV VOA1 092311	EPA_TO15	CCV	R43035	9/23/2011 4:39:00 PM	Robert Lynch		
RLVS1 VOA1 09231	EPA_TO15	RLVS	R43035	9/23/2011 5:25:00 PM	Robert Lynch		
BLK VOA1 092311	EPA_TO15	MBLK	R43035	9/23/2011 6:14:00 PM	Robert Lynch		
1108899-010A	EPA_TO15	SAMP	R43035	9/23/2011 6:57:00 PM	Robert Lynch	H	
1108899-013A	EPA_TO15	SAMP	R43035	9/23/2011 7:40:00 PM	Robert Lynch	H	
1108899-014A	EPA_TO15	SAMP	R43035	9/23/2011 8:23:00 PM	Robert Lynch	H	
1108899-014ADUP	EPA_TO15	DUP	R43035	9/23/2011 9:08:00 PM	Robert Lynch	H	
1108899-015A	EPA_TO15	SAMP	R43035	9/23/2011 9:52:00 PM	Robert Lynch	H	
1109105-023A	EPA_TO15	SAMP	R43035	9/24/2011 12:18:00 AM	Robert Lynch	H	
1109105-003A	EPA_TO15	SAMP	R43035	9/24/2011 3:33:00 AM	Robert Lynch	H	
1109105-033A	EPA_TO15	SAMP	R43035	9/24/2011 5:07:00 AM	Robert Lynch	H	
1109105-020A	EPA_TO15	SAMP	R43035	9/24/2011 9:26:00 AM	Robert Lynch	H	
1109105-021A	EPA_TO15	SAMP	R43035	9/24/2011 10:12:00 AM	Robert Lynch	H	
1109105-030A	EPA_TO15	SAMP	R43035	9/24/2011 10:59:00 AM	Robert Lynch	H	
1109105-031A	EPA_TO15	SAMP	R43035	9/24/2011 11:46:00 AM	Robert Lynch	H	
1109105-032A	EPA_TO15	SAMP	R43035	9/24/2011 12:34:00 PM	Robert Lynch	H	
RLVS2 VOA1 09231	EPA_TO15	RLVS	R43035	9/24/2011 1:23:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

RunNo 43035

20-Oct-11

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837684	BFB1 VOA1 092311	BFB_TUNE	TUNE	\1\DATA\092311'9/23/2011 3:53:0		1	R43035		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		0	0	0	0	0	0	0%	0	2	0%	
174	M		81.9	81.9		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.4	7.4		0	0	0	0	0	0	0%	4	9	0%	
176	M		100.4	100.4		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		24.2	24.2		0	0	0	0	0	0	0%	8	40	0%	
75	M		50.2	50.2		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837685	CCV VOA1 092311	EPA_TO15	CCV	\1\DATA\092311'9/23/2011 4:39:0		1	R43035		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	10.45	10.45		9.6	0	0	0.107	1	0	109%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.47	10.47		10	0	0	0.211	1	0	105%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.89	10.89		9.8	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.33	9.33		9.8	0	0	0.2	1	0	95%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.34	10.34		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.88	10.88		9.9	0	0	0.097	1	0	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	6.91	6.91		9.1	0	0	0.271	1	0	76%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.42	9.42		9.8	0	0	0.245	1	0	96%	70	130	0%	
1,2-Dibromoethane	A	ppbv	8.97	8.97		9.6	0	0	0.186	1	0	93%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.6	9.6		9.7	0	0	0.208	1	0	99%	70	130	0%	
1,2-Dichloroethane	A	ppbv	9.87	9.87		9.7	0	0	0.196	1	0	102%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.96	9.96		9.8	0	0	0.224	1	0	102%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.3	9.3		9.7	0	0	0.24	1	0	96%	70	130	0%	
1,3-Butadiene	A	ppbv	11.16	11.16		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.7	9.7		9.7	0	0	0.202	1	0	100%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837685	CCV VOA1 092311	EPA_TO15	CCV	\I\DATA\092311'9/23/2011 4:39:0		1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9.49	9.49		9.6	0	0	0.194	1	0	99%	70	130	0%	
1,4-Dioxane	A	ppbv	10.04	10.04		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	10.2	10.2		9.9	0	0	0.287	1	0	103%	70	130	0%	
2-Hexanone	A	ppbv	9.81	9.81		9.8	0	0	0.135	1	0	100%	70	130	0%	
2-Propanol	A	ppbv	10.75	10.75		10.1	0	0	0.329	1	0	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.75	9.75		10	0	0	0.157	1	0	98%	70	130	0%	
Acetone	A	ppbv	10.57	10.57		10	0	0	0.43	1	0	106%	70	130	0%	
Benzene	A	ppbv	9.44	9.44		9.6	0	0	0.126	1	0	98%	70	130	0%	
Benzyl chloride	A	ppbv	9.87	9.87		9.7	0	0	0.155	1	0	102%	70	130	0%	
Bromodichloromethane	A	ppbv	9.33	9.33		9.6	0	0	0.156	1	0	97%	70	130	0%	
Bromoform	A	ppbv	9.62	9.62		9.6	0	0	0.197	1	0	100%	70	130	0%	
Bromomethane	A	ppbv	8.15	8.15		9.3	0	0	0.075	1	0	88%	70	130	0%	
Carbon disulfide	A	ppbv	10.31	10.31		9.7	0	0	0.093	1	0	106%	70	130	0%	
Carbon tetrachloride	A	ppbv	9.27	9.27		9.5	0	0	0.114	1	0	98%	70	130	0%	M
Chlorobenzene	A	ppbv	10.28	10.28		9.9	0	0	0.275	1	0	104%	70	130	0%	
Chlorodibromomethane	A	ppbv	8.9	8.9		9.2	0	0	0.165	1	0	97%	70	130	0%	
Chloroethane	A	ppbv	9.94	9.94		9.8	0	0	0.063	1	0	101%	70	130	0%	
Chloroform	A	ppbv	10.7	10.7		9.4	0	0	0.126	1	0	114%	70	130	0%	
Chloromethane	A	ppbv	11.37	11.37		9.8	0	0	0.104	1	0	116%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.04	10.04		9.8	0	0	0.107	1	0	102%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.23	9.23		9.5	0	0	0.166	1	0	97%	70	130	0%	
Cyclohexane	A	ppbv	11.57	11.57		9.8	0	0	0.684	2	0	118%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.48	9.48		9.2	0	0	0.086	1	0	103%	70	130	0%	
Ethanol	A	ppbv	10.88	10.88		9.2	0	0	1.962	5	0	118%	70	130	0%	
Ethyl acetate	A	ppbv	10.08	10.08		9.8	0	0	0.157	1	0	103%	70	130	0%	
Ethylbenzene	A	ppbv	10.35	10.35		9.8	0	0	0.737	2	0	106%	70	130	0%	
Heptane	A	ppbv	11.09	11.09		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	6.9	6.9		9.4	0	0	0.374	2	0	73%	70	130	0%	
m,p-Xylene	A	ppbv	21.48	21.48		19.2	0	0	0.524	2	0	112%	70	130	0%	
Methylene chloride	A	ppbv	11.29	11.29		10	0	0	2.077	5	0	113%	70	130	0%	
n-Hexane	A	ppbv	11.07	11.07		10.1	0	0	0.692	2	0	110%	70	130	0%	
Naphthalene	A	ppbv	7.15	7.15		9.2	0	0	0.247	1	0	78%	70	130	0%	
o-Xylene	A	ppbv	10.21	10.21		10	0	0	0.258	1	0	102%	70	130	0%	
Propylene	A	ppbv	10.81	10.81		10.2	0	0	0.075	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
837685	CCV VOA1 092311	EPA_TO15	CCV	\1\DATA\092311'9/23/2011 4:39:0		1	R43035		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.9	9.9		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	9.27	9.27		9.9	0	0	0.228	1	0	94%	70	130	0%	
Tetrachloroethene	A	ppbv	9.41	9.41		9.6	0	0	0.148	1	0	98%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.4	10.4		10	0	0	0.201	1	0	104%	70	130	0%	
Toluene	A	ppbv	9.69	9.69		9.8	0	0	0.158	1	0	99%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.69	10.69		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	8.74	8.74		9.1	0	0	0.171	1	0	96%	70	130	0%	
Trichloroethene	A	ppbv	9.49	9.49		9.6	0	0	0.119	1	0	99%	70	130	0%	
Trichlorofluoromethane	A	ppbv	9.89	9.89		9.6	0	0	0.148	1	0	103%	70	130	0%	
Vinyl acetate	A	ppbv	10.36	10.36		9.9	0	0	0.266	1	0	105%	70	130	0%	
Vinyl chloride	A	ppbv	11.12	11.12		9.4	0	0	0.072	1	0	118%	70	130	0%	
Xylenes, Total	C	ppbv	31.69	31.69		29.2	0	0	0.782	3	0	109%	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	11.94	11.94		12.5	0	0	0	0	0	96%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837686	RLVS1 VOA1 09231	EPA_TO15	RLVS	\1\DATA\092311'9/23/2011 5:25:0		1	R43035		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	0.82	0.82		0.996	0	0	0.107	1	0	82%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.28	1.28		1	0	0	0.211	1	0	128%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.85	0.85		0.98	0	0	0.108	1	0	87%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.91	0.91		0.98	0	0	0.2	1	0	93%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.01	1.01		0.97	0	0	0.111	1	0	104%	70	130	0%	
1,1-Dichloroethene	A	ppbv	0.97	0.97		0.99	0	0	0.097	1	0	98%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.56	1.56		0.91	0	0	0.271	1	0	171%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.48	1.48		0.98	0	0	0.245	1	0	151%	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	1.59	1.59		0.97	0	0	0.208	1	0	164%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.04	1.04		0.97	0	0	0.196	1	0	107%	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\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	84	0.00
2	T	Propylene	1.225	1.299	-6.0	83	0.00
3	T	Dichlorodifluoromethane	3.092	3.187	-3.1	82	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.025	2.073	-2.4	82	0.00
5	T	Chloromethane	1.302	1.558	-19.7	90	0.00
6	T	Vinyl chloride	1.810	2.140	-18.2	85	0.00
7	T	1,3-Butadiene	1.413	1.609	-13.9	82	0.00
8	T	Bromomethane	1.349	1.183	12.3	78	0.00
9	T	Chloroethane	0.710	0.767	-8.0	85	0.00
10	T	Trichlorofluoromethane	2.933	3.021	-3.0	81	0.00
11	T	Ethanol	0.281	0.333	-18.5	107	0.00
12	T	Freon113	2.328	2.586	-11.1	81	0.00
13	T	1,1-Dichloroethene	1.971	2.167	-9.9	84	0.00
14	T	Acetone	1.875	1.983	-5.8	73	0.00
15	T	Carbon disulfide	3.079	3.272	-6.3	83	0.00
16	T	2-Propanol	1.628	1.733	-6.4	78	-0.01
17	T	Methylene chloride	1.493	1.686	-12.9	84	0.00
18	T	tert-Butyl Methyl Ether	2.561	2.397	6.4	65	0.00
19	T	trans-1,2-Dichloroethene	1.844	2.012	-9.1	80	0.00
20	T	n-Hexane	2.043	2.238	-9.5	80	0.00
21	T	1,1-Dichloroethane	2.096	2.234	-6.6	77	0.00
22	T	Vinyl acetate	2.893	3.028	-4.7	69	0.00
23	T	cis-1,2-Dichloroethene	1.089	1.115	-2.4	77	0.00
24	T	2-Butanone	1.856	1.913	-3.1	74	0.00
25	T	Ethyl acetate	2.392	2.461	-2.9	74	0.00
26	T	Tetrahydrofuran	1.265	1.316	-4.0	71	0.00
27	T	Chloroform	2.363	2.581	-9.2	75	-0.01
28	T	1,1,1-Trichloroethane	2.274	2.475	-8.8	73	0.00
29	T	Cyclohexane	2.080	2.457	-18.1	78	0.00
30	T	Carbon tetrachloride	2.045	1.996	2.4	71	0.00
31	T	Benzene	2.739	2.695	1.6	71	0.00
32	T	1,2-Dichloroethane	1.367	1.391	-1.8	69	-0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.00
34	T	Heptane	0.885	0.992	-12.1	73	0.00
35	T	Trichloroethene	0.447	0.442	1.1	73	0.00
36	T	1,2-Dichloropropane	0.346	0.352	-1.7	74	0.00
37	T	1,4-Dioxane	0.112	0.117	-4.5	89	0.00
38	T	Bromodichloromethane	0.643	0.625	2.8	72	0.00
39	T	cis-1,3-Dichloropropene	0.512	0.498	2.7	72	0.00
40	T	4-Methyl-2-pentanone	0.243	0.237	2.5	72	0.00
41	T	Toluene	0.894	0.884	1.1	75	0.00
42	T	trans-1,3-Dichloropropene	0.452	0.434	4.0	72	0.00
43	T	1,1,2-Trichloroethane	0.306	0.291	4.9	74	0.00
44	T	Tetrachloroethene	0.491	0.482	1.8	75	0.00
45	T	2-Hexanone	0.515	0.516	-0.2	75	0.00
46	T	Chlorodibromomethane	0.491	0.445	9.4	71	0.00
47	T	1,2-Dibromoethane	0.451	0.422	6.4	72	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
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)
49	T	Chlorobenzene	0.884	0.918	-3.8	73	0.00
50	T	Ethylbenzene	1.488	1.571	-5.6	75	0.00
51	T	m,p-Xylene	1.229	1.375	-11.9	72	0.00
52	T	o-Xylene	1.114	1.138	-2.2	74	0.00
53	T	Styrene	0.778	0.786	-1.0	73	0.00
54	T	Bromoform	0.583	0.584	-0.2	70	0.00
55	S	4-Bromofluorobenzene	0.609	0.582	4.4	69	0.00
56	T	1,1,2,2-Tetrachloroethane	0.824	0.862	-4.6	74	0.00
57	T	4-Ethyltoluene	1.305	1.285	1.5	72	0.00
58	T	1,3,5-Trimethylbenzene	1.106	1.061	4.1	70	0.00
59	T	1,2,4-Trimethylbenzene	1.050	1.009	3.9	71	0.00
60	T	1,3-Dichlorobenzene	0.678	0.678	0.0	72	0.00
61	T	1,4-Dichlorobenzene	0.638	0.630	1.3	71	0.00
62	T	Benzyl chloride	0.821	0.835	-1.7	69	0.00
63	T	1,2-Dichlorobenzene	0.636	0.629	1.1	72	0.00
64	T	1,2,4-Trichlorobenzene	0.163	0.124	23.9	63	0.00
65	T	Hexachlorobutadiene	0.410	0.301	26.6	62	0.00
66		Naphthalene	0.269	0.209	22.3	62	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 24 4:31 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	434926	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1247734	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.53	117	725259	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	421800	11.94	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 95.52%				
Target Compounds							Qvalue
2) Propylene	5.51	41	460907	10.81	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1020223	9.48	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	685234	9.72	ppbv	#	67
5) Chloromethane	6.01	50	515077	11.37	ppbv		99
6) Vinyl chloride	6.21	62	700076	11.12	ppbv		99
7) 1,3-Butadiene	6.27	39	548763	11.16	ppbv		97
8) Bromomethane	6.85	94	382641	8.15	ppbv	#	98
9) Chloroethane	6.99	64	245422	9.94	ppbv	#	95
10) Trichlorofluoromethane	7.33	101	1009225	9.89	ppbv	#	97
11) Ethanol	7.57	45	106472	10.88	ppbv		99
12) Freon113	7.99	101	881624	10.89	ppbv		87
13) 1,1-Dichloroethene	8.09	61	746357	10.88	ppbv	#	85
14) Acetone	8.18	43	690013	10.57	ppbv	#	89
15) Carbon disulfide	8.46	76	1104336	10.31	ppbv	#	99
16) 2-Propanol	8.23	45	609157	10.75	ppbv	#	1
17) Methylene chloride	8.75	49	586711	11.29	ppbv	#	74
18) tert-Butyl Methyl Ether	8.95	73	825523	9.27	ppbv	#	86
19) trans-1,2-Dichloroethene	9.03	61	686052	10.69	ppbv	#	81
20) n-Hexane	9.22	57	786460	11.07	ppbv	#	86
21) 1,1-Dichloroethane	9.59	63	753886	10.34	ppbv	#	97
22) Vinyl acetate	9.53	43	1043075	10.36	ppbv	#	94
23) cis-1,2-Dichloroethene	10.28	96	380226	10.04	ppbv	#	79
24) 2-Butanone	10.25	43	658903	10.20	ppbv	#	88
25) Ethyl acetate	10.19	43	839045	10.08	ppbv	#	98
26) Tetrahydrofuran	10.59	42	457833	10.40	ppbv	#	86
27) Chloroform	10.60	83	880099	10.70	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	826750	10.45	ppbv	#	93
29) Cyclohexane	10.86	56	837698	11.57	ppbv		84
30) Carbon tetrachloride	11.02	117	659761m	9.27	ppbv		
31) Benzene	11.30	78	900026	9.44	ppbv		93
32) 1,2-Dichloroethane	11.37	62	469490	9.87	ppbv	#	96
34) Heptane	11.35	43	980315	11.09	ppbv	#	85
35) Trichloroethene	12.03	130	423243	9.49	ppbv		92
36) 1,2-Dichloropropane	12.38	63	344502	9.96	ppbv		97
37) 1,4-Dioxane	12.46	88	112481	10.04	ppbv	#	79
38) Bromodichloromethane	12.67	83	598569	9.33	ppbv	#	98
39) cis-1,3-Dichloropropene	13.22	75	471878	9.23	ppbv		95
40) 4-Methyl-2-pentanone	13.33	58	236137	9.75	ppbv	#	91
41) Toluene	13.63	91	864836	9.69	ppbv		96
42) trans-1,3-Dichloropropene	13.93	75	394318	8.74	ppbv		95
43) 1,1,2-Trichloroethane	14.20	97	285095	9.33	ppbv		96

(#) = qualifier out of range (m) = manual integration
09231102.D 091911V1.M Thu Sep 29 12:31:41 2011 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 24 4:31 2011 Quant Results File: 091911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
DataAcq Meth : 091911V1

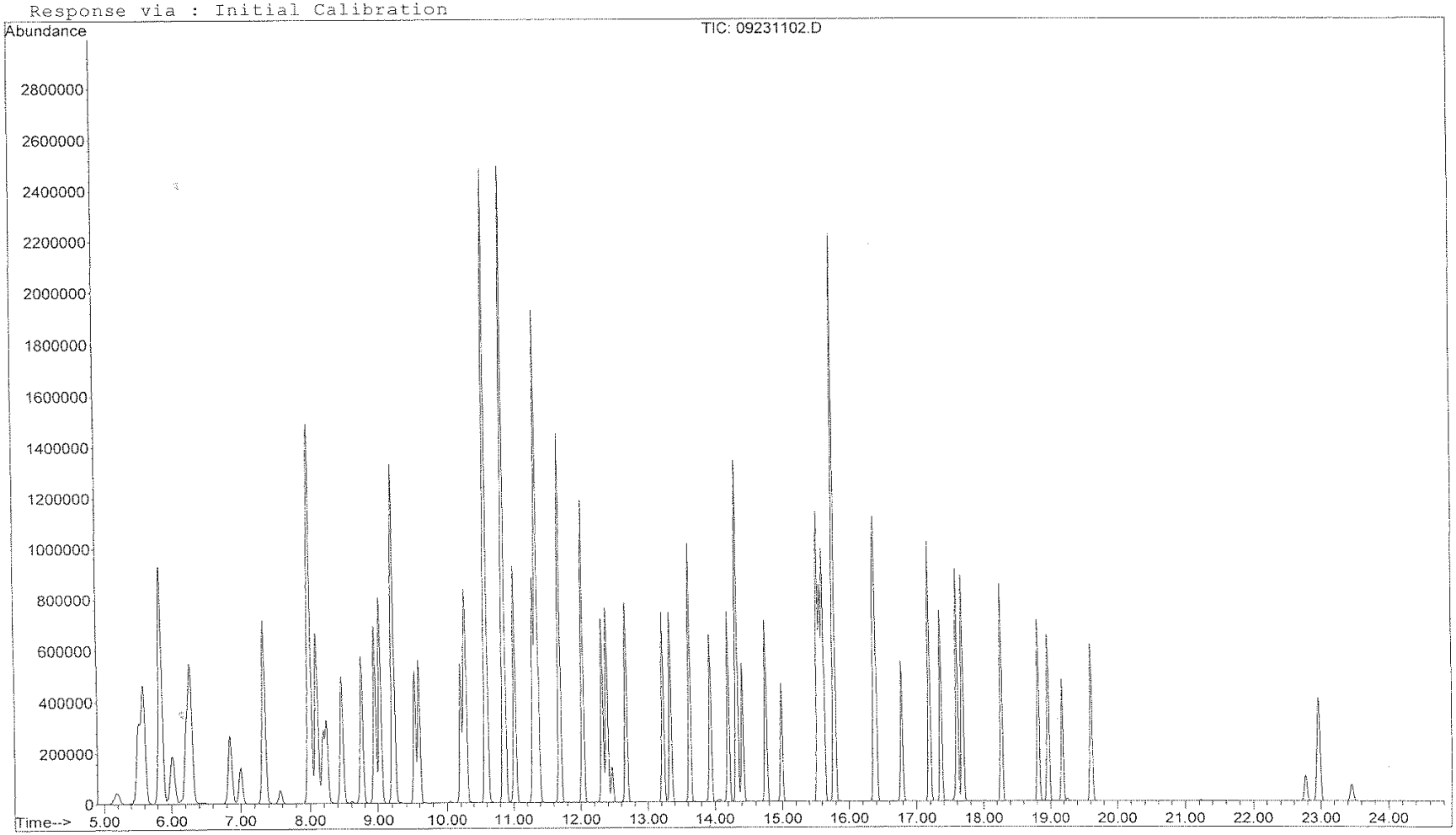
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.33	166	461528	9.41	ppbv		98
45) 2-Hexanone	14.41	43	504672	9.81	ppbv		91
46) Chlorodibromomethane	14.75	129	435624	8.90	ppbv		99
47) 1,2-Dibromoethane	14.99	107	404086	8.97	ppbv		100
49) Chlorobenzene	15.58	112	527221	10.28	ppbv	#	84
50) Ethylbenzene	15.62	91	893309	10.35	ppbv		92
51) m,p-Xylene	15.78	91	1531885	21.48	ppbv		89
52) o-Xylene	16.37	91	660092	10.21	ppbv	#	86
53) Styrene	16.40	104	446781	9.90	ppbv		95
54) Bromoform	16.78	173	325438	9.62	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	500245	10.47	ppbv	#	98
57) 4-Ethyltoluene	17.60	105	730491	9.64	ppbv		96
58) 1,3,5-Trimethylbenzene	17.68	105	597214	9.30	ppbv		96
59) 1,2,4-Trimethylbenzene	18.26	105	573798	9.42	ppbv		96
60) 1,3-Dichlorobenzene	18.82	146	381572	9.70	ppbv		97
61) 1,4-Dichlorobenzene	18.97	146	351173	9.49	ppbv	#	97
62) Benzyl chloride	19.17	91	470103	9.87	ppbv		95
63) 1,2-Dichlorobenzene	19.61	146	353821	9.60	ppbv		97
64) 1,2,4-Trichlorobenzene	22.76	180	65464	6.91	ppbv		96
65) Hexachlorobutadiene	22.96	225	164094	6.90	ppbv		98
66) Naphthalene	23.45	128	111686	7.15	ppbv		99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 4:39 pm Operator: RACHEL HILL
Sample : CCV VOA1 092311 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 24 4:31 2011 Quant Results File: 091911V1.RES

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_110929A **Run No.:** 43152

Analytical Run Date: 9/29/2011 **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
BFB1 VOA1 092911	BFB_TUNE	TUNE	R43152	9/29/2011 9:10:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 10:36:00 AM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 11:17:00 AM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 12:14:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 12:55:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 1:36:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 2:18:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R43152	9/29/2011 3:02:00 PM	Robert Lynch		
VOA1 BFB2 092911	BFB_TUNE	TUNE	R43152	9/29/2011 3:41:00 PM	Robert Lynch		
VOA1 ICV 092711	EPA_TO15	ICV	R43152	9/29/2011 4:22:00 PM	Robert Lynch		
VOA1 RLVS1 09271	EPA_TO15	RLVS	R43152	9/29/2011 5:03:00 PM	Robert Lynch		
1108899-043A	EPA_TO15	SAMP	R43152	9/29/2011 6:31:00 PM	Robert Lynch	H	
1108899-043ADUP	EPA_TO15	DUP	R43152	9/29/2011 7:12:00 PM	Robert Lynch	H	
1108899-041A	EPA_TO15	SAMP	R43152	9/29/2011 7:54:00 PM	Robert Lynch	H	
1108899-042A	EPA_TO15	SAMP	R43152	9/29/2011 8:38:00 PM	Robert Lynch	H	
1109105-004A	EPA_TO15	SAMP	R43152	9/29/2011 9:19:00 PM	Robert Lynch	H	
1109105-034A	EPA_TO15	SAMP	R43152	9/29/2011 10:00:00 PM	Robert Lynch	H	
1109105-016A	EPA_TO15	SAMP	R43152	9/29/2011 10:45:00 PM	Robert Lynch	H	
1109105-019A	EPA_TO15	SAMP	R43152	9/30/2011 12:15:00 AM	Robert Lynch	H	
1109105-008A	EPA_TO15	SAMP	R43152	9/30/2011 12:56:00 AM	Robert Lynch	H	
1109105-010A	EPA_TO15	SAMP	R43152	9/30/2011 2:18:00 AM	Robert Lynch	H	
1109105-011A	EPA_TO15	SAMP	R43152	9/30/2011 2:59:00 AM	Robert Lynch	H	
1109555-007A	EPA_TO15	SAMP	R43152	9/30/2011 4:28:00 AM	Robert Lynch	H	
1109105-012A	EPA_TO15	SAMP	R43152	9/30/2011 7:32:00 AM	Robert Lynch	H	
1109555-010A	EPA_TO15	SAMP	R43152	9/30/2011 9:22:00 AM	Robert Lynch	H	
VOA1 BLK 092711	EPA_TO15	MBLK	R43152	9/30/2011 10:14:00 AM	Robert Lynch		Accidentally ran Blank on wrong position on tree. Re-analyzed as soon as possible here.
1108899-043A	EPA_TO15	SAMP	R43152	9/30/2011 10:55:00 AM	Robert Lynch	H	
1109555-011A	EPA_TO15	SAMP	R43152	9/30/2011 11:39:00 AM	Robert Lynch	H	
1109555-012A	EPA_TO15	SAMP	R43152	9/30/2011 12:23:00 PM	Robert Lynch	H	
1109555-013A	EPA_TO15	SAMP	R43152	9/30/2011 1:04:00 PM	Robert Lynch	H	
VOA1 RLVS2 09271	EPA_TO15	RLVS	R43152	9/30/2011 1:47:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
840603	VOA1 ICV 092711	EPA_TO15	ICV	\\I\DATA\092911\	9/29/2011 4:22:0	1	R43152		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	11.23	11.23		9.6	0	0	0.107	1	0	117%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.37	10.37		10	0	0	0.211	1	0	104%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.91	10.91		9.8	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.6	9.6		9.8	0	0	0.2	1	0	98%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.39	10.39		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.69	10.69		9.9	0	0	0.097	1	0	108%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.62	9.62		9.1	0	0	0.271	1	0	106%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.29	9.29		9.8	0	0	0.245	1	0	95%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.57	9.57		9.6	0	0	0.186	1	0	100%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.91	9.91		9.7	0	0	0.208	1	0	102%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.11	11.11		9.7	0	0	0.196	1	0	115%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.96	9.96		9.8	0	0	0.224	1	0	102%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.02	9.02		9.7	0	0	0.24	1	0	93%	70	130	0%	
1,3-Butadiene	A	ppbv	12.39	12.39		9.8	0	0	0.152	1	0	126%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.81	9.81		9.7	0	0	0.202	1	0	101%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.67	9.67		9.6	0	0	0.194	1	0	101%	70	130	0%	
1,4-Dioxane	A	ppbv	10.31	10.31		9.6	0	0	0.128	1	0	107%	70	130	0%	
2-Butanone	A	ppbv	10.93	10.93		9.9	0	0	0.287	1	0	110%	70	130	0%	
2-Hexanone	A	ppbv	10.36	10.36		9.8	0	0	0.135	1	0	106%	70	130	0%	
2-Propanol	A	ppbv	11.24	11.24		10.1	0	0	0.329	1	0	111%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.16	10.16		10	0	0	0.157	1	0	102%	70	130	0%	
Acetone	A	ppbv	11.09	11.09		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.14	10.14		9.6	0	0	0.126	1	0	106%	70	130	0%	
Benzyl chloride	A	ppbv	10.69	10.69		9.7	0	0	0.155	1	0	110%	70	130	0%	
Bromodichloromethane	A	ppbv	9.88	9.88		9.6	0	0	0.156	1	0	103%	70	130	0%	
Bromoform	A	ppbv	9.81	9.81		9.6	0	0	0.197	1	0	102%	70	130	0%	
Bromomethane	A	ppbv	9.7	9.7		9.3	0	0	0.075	1	0	104%	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	10.51	10.51		9.5	0	0	0.114	1	0	111%	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	9.74	9.74		9.2	0	0	0.165	1	0	106%	70	130	0%	
Chloroethane	A	ppbv	9.67	9.67		9.8	0	0	0.063	1	0	99%	70	130	0%	
Chloroform	A	ppbv	11.16	11.16		9.4	0	0	0.126	1	0	119%	70	130	0%	
Chloromethane	A	ppbv	10.24	10.24		9.8	0	0	0.104	1	0	104%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
840603	VOA1 ICV 092711	EPA_TO15	ICV	\\I\DATA\092911\	9/29/2011 4:22:0	1	R43152		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	10.2	10.2		9.8	0	0	0.107	1	0	104%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.57	9.57		9.5	0	0	0.166	1	0	101%	70	130	0%	
Cyclohexane	A	ppbv	11.47	11.47		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.36	9.36		9.2	0	0	0.086	1	0	102%	70	130	0%	
Ethanol	A	ppbv	10.67	10.67		9.2	0	0	1.962	5	0	116%	70	130	0%	
Ethyl acetate	A	ppbv	11.02	11.02		9.8	0	0	0.157	1	0	112%	70	130	0%	
Ethylbenzene	A	ppbv	9.86	9.86		9.8	0	0	0.737	2	0	101%	70	130	0%	
Heptane	A	ppbv	11.06	11.06		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.63	10.63		9.4	0	0	0.374	2	0	113%	70	130	0%	
m,p-Xylene	A	ppbv	21.01	21.01		19.2	0	0	0.524	2	0	109%	70	130	0%	
Methylene chloride	A	ppbv	10.62	10.62		10	0	0	2.077	5	0	106%	70	130	0%	
n-Hexane	A	ppbv	10.88	10.88		10.1	0	0	0.692	2	0	108%	70	130	0%	
Naphthalene	A	ppbv	10.27	10.27		9.2	0	0	0.247	1	0	112%	70	130	0%	
o-Xylene	A	ppbv	9.98	9.98		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	10.45	10.45		10.2	0	0	0.075	1	0	102%	70	130	0%	
Styrene	A	ppbv	9.62	9.62		9.8	0	0	0.263	1	0	98%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.57	10.57		9.9	0	0	0.228	1	0	107%	70	130	0%	
Tetrachloroethene	A	ppbv	9.73	9.73		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.31	11.31		10	0	0	0.201	1	0	113%	70	130	0%	
Toluene	A	ppbv	9.78	9.78		9.8	0	0	0.158	1	0	100%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.57	10.57		9.8	0	0	0.117	1	0	108%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.26	9.26		9.1	0	0	0.171	1	0	102%	70	130	0%	
Trichloroethene	A	ppbv	9.69	9.69		9.6	0	0	0.119	1	0	101%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.2	10.2		9.6	0	0	0.148	1	0	106%	70	130	0%	
Vinyl acetate	A	ppbv	11.12	11.12		9.9	0	0	0.266	1	0	112%	70	130	0%	
Vinyl chloride	A	ppbv	11.57	11.57		9.4	0	0	0.072	1	0	123%	70	130	0%	
Xylenes, Total	C	ppbv	30.99	30.99		29.2	0	0	0.782	3	0	106%	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%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
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	119	0.00
2	T	Propylene	1.347	1.381	-2.5	104	0.00
3	T	Dichlorodifluoromethane	3.585	3.645	-1.7	107	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.317	2.382	-2.8	107	0.00
5	T	Chloromethane	1.453	1.565	-7.7	103	-0.01
6	T	Vinyl chloride	1.253	1.542	-23.1	113	-0.01
7	T	1,3-Butadiene	1.267	1.602	-26.4	107	-0.02
8	T	Bromomethane	1.224	1.276	-4.2	108	0.00
9	T	Chloroethane	0.763	0.802	-5.1	109	0.00
10	T	Trichlorofluoromethane	3.171	3.368	-6.2	113	0.00
11	T	Ethanol	0.354	0.410	-15.8	151#	-0.01
12	T	Freon113	2.437	2.712	-11.3	124	0.00
13	T	1,1-Dichloroethene	2.076	2.242	-8.0	117	0.00
14	T	Acetone	2.093	2.322	-10.9	143	0.00
15	T	Carbon disulfide	3.321	3.506	-5.6	110	0.00
16	T	2-Propanol	1.935	2.153	-11.3	122	-0.02
17	T	Methylene chloride	1.594	1.692	-6.1	125	0.00
18	T	tert-Butyl Methyl Ether	2.818	3.008	-6.7	147	0.00
19	T	trans-1,2-Dichloroethene	1.972	2.127	-7.9	128	0.00
20	T	n-Hexane	2.161	2.328	-7.7	127	0.00
21	T	1,1-Dichloroethane	2.152	2.305	-7.1	134	0.00
22	T	Vinyl acetate	3.263	3.665	-12.3	149	0.00
23	T	cis-1,2-Dichloroethene	1.175	1.223	-4.1	128	0.00
24	T	2-Butanone	2.252	2.486	-10.4	140	0.00
25	T	Ethyl acetate	2.851	3.207	-12.5	144	0.00
26	T	Tetrahydrofuran	1.385	1.566	-13.1	134	0.00
27	T	Chloroform	2.502	2.850	-13.9	126	-0.01
28	T	1,1,1-Trichloroethane	2.413	2.824	-17.0	128	0.00
29	T	Cyclohexane	2.160	2.529	-17.1	124	0.00
30	T	Carbon tetrachloride	2.213	2.448	-10.6	131	0.00
31	T	Benzene	2.950	3.115	-5.6	141	0.00
32	T	1,2-Dichloroethane	1.496	1.714	-14.6	143	-0.01
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	130	0.00
34	T	Heptane	0.944	1.054	-11.7	123	0.00
35	T	Trichloroethene	0.484	0.488	-0.8	125	0.00
36	T	1,2-Dichloropropane	0.395	0.401	-1.5	139	0.00
37	T	1,4-Dioxane	0.130	0.140	-7.7	145	-0.01
38	T	Bromodichloromethane	0.731	0.753	-3.0	134	0.00
39	T	cis-1,3-Dichloropropene	0.595	0.599	-0.7	135	0.00
40	T	4-Methyl-2-pentanone	0.278	0.282	-1.4	127	0.00
41	T	Toluene	1.026	1.024	0.2	133	0.00
42	T	trans-1,3-Dichloropropene	0.523	0.532	-1.7	134	0.00
43	T	1,1,2-Trichloroethane	0.353	0.345	2.3	131	0.00
44	T	Tetrachloroethene	0.540	0.548	-1.5	121	0.00
45	T	2-Hexanone	0.581	0.614	-5.7	130	0.00
46	T	Chlorodibromomethane	0.554	0.551	0.5	131	0.00
47	T	1,2-Dibromoethane	0.514	0.513	0.2	131	-0.01

(#) = Out of Range
09291113.D 092911V1.M Thu Oct 20 11:10:36 2011 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\092911\09291113.D
Acq On : 29 Sep 2011 4:22 pm
Sample : VOA1 ICV 092711
Misc : ICV EPA_TO15
MS Integration Params: CLME.P

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

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
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)
49	T	Chlorobenzene	1.040	1.028	1.2	125	0.00
50	T	Ethylbenzene	1.774	1.786	-0.7	126	0.00
51	T	m,p-Xylene	1.433	1.568	-9.4	126	0.00
52	T	o-Xylene	1.310	1.307	0.2	126	0.00
53	T	Styrene	0.902	0.885	1.9	124	0.00
54	T	Bromoform	0.673	0.688	-2.2	125	0.00
55	S	4-Bromofluorobenzene	0.571	0.581	-1.8	111	0.00
56	T	1,1,2,2-Tetrachloroethane	0.930	0.965	-3.8	123	0.00
57	T	4-Ethyltoluene	1.514	1.423	6.0	119	0.00
58	T	1,3,5-Trimethylbenzene	1.296	1.206	6.9	119	0.00
59	T	1,2,4-Trimethylbenzene	1.205	1.142	5.2	120	0.00
60	T	1,3-Dichlorobenzene	0.715	0.723	-1.1	121	0.00
61	T	1,4-Dichlorobenzene	0.669	0.674	-0.7	120	0.00
62	T	Benzyl chloride	0.870	0.959	-10.2	126	0.00
63	T	1,2-Dichlorobenzene	0.650	0.664	-2.2	122	0.00
64	T	1,2,4-Trichlorobenzene	0.094	0.099	-5.3	109	0.00
65	T	Hexachlorobutadiene	0.224	0.253	-12.9	107	0.00
66		Naphthalene	0.141	0.158	-12.1	109	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 30 7:21 2011 Quant Results File: 092911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
DataAcq Meth : 092911V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	515502	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1591940	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	959004	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.18	95	557070	12.71	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.68%				
Target Compounds							Qvalue
2) Propylene	5.52	41	580831	10.45	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1383116	9.36	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	933307	9.77	ppbv	#	70
5) Chloromethane	6.00	50	613305	10.24	ppbv		99
6) Vinyl chloride	6.21	62	597833	11.57	ppbv	#	99
7) 1,3-Butadiene	6.26	39	647570	12.39	ppbv		92
8) Bromomethane	6.85	94	489387	9.70	ppbv	#	98
9) Chloroethane	7.00	64	304252	9.67	ppbv	#	95
10) Trichlorofluoromethane	7.34	101	1333567	10.20	ppbv	#	98
11) Ethanol	7.56	45	155747	10.67	ppbv		99
12) Freon113	7.99	101	1096100	10.91	ppbv		88
13) 1,1-Dichloroethene	8.09	61	915480	10.69	ppbv	#	85
14) Acetone	8.18	43	957623	11.09	ppbv	#	87
15) Carbon disulfide	8.47	76	1402369	10.24	ppbv	#	100
16) 2-Propanol	8.23	45	896865	11.24	ppbv		84
17) Methylene chloride	8.75	49	697829	10.62	ppbv	#	77
18) tert-Butyl Methyl Ether	8.95	73	1228185	10.57	ppbv	#	88
19) trans-1,2-Dichloroethene	9.04	61	859623	10.57	ppbv	#	81
20) n-Hexane	9.22	57	969760	10.88	ppbv	#	86
21) 1,1-Dichloroethane	9.60	63	921935	10.39	ppbv	#	97
22) Vinyl acetate	9.53	43	1496219	11.12	ppbv	#	94
23) cis-1,2-Dichloroethene	10.28	96	494305	10.20	ppbv	#	78
24) 2-Butanone	10.24	43	1014997	10.93	ppbv	#	87
25) Ethyl acetate	10.20	43	1295943	11.02	ppbv	#	99
26) Tetrahydrofuran	10.58	42	645961	11.31	ppbv		88
27) Chloroform	10.60	83	1151746	11.16	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	1117978	11.23	ppbv		94
29) Cyclohexane	10.86	56	1021912	11.47	ppbv		86
30) Carbon tetrachloride	11.01	117	959147	10.51	ppbv		97
31) Benzene	11.29	78	1233279	10.14	ppbv		93
32) 1,2-Dichloroethane	11.37	62	685555	11.11	ppbv	#	97
34) Heptane	11.35	43	1328622	11.06	ppbv	#	87
35) Trichloroethene	12.03	130	597036	9.69	ppbv		92
36) 1,2-Dichloropropane	12.38	63	500988	9.96	ppbv		97
37) 1,4-Dioxane	12.46	88	170927	10.31	ppbv	#	79
38) Bromodichloromethane	12.67	83	920313	9.88	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	724504	9.57	ppbv		95
40) 4-Methyl-2-pentanone	13.33	58	359397	10.16	ppbv	#	91
41) Toluene	13.62	91	1278228	9.78	ppbv		97
42) trans-1,3-Dichloropropene	13.93	75	616244	9.26	ppbv	#	94
43) 1,1,2-Trichloroethane	14.20	97	431206	9.60	ppbv		96

(#) = qualifier out of range (m) = manual integration
09291113.D 092911V1.M Thu Oct 20 12:15:24 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092911\09291113.D
Acq On : 29 Sep 2011 4:22 pm
Sample : VOA1 ICV 092711
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Sep 30 7:21 2011

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

Quant Results File: 092911V1.RES

Quant Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
DataAcq Meth : 092911V1

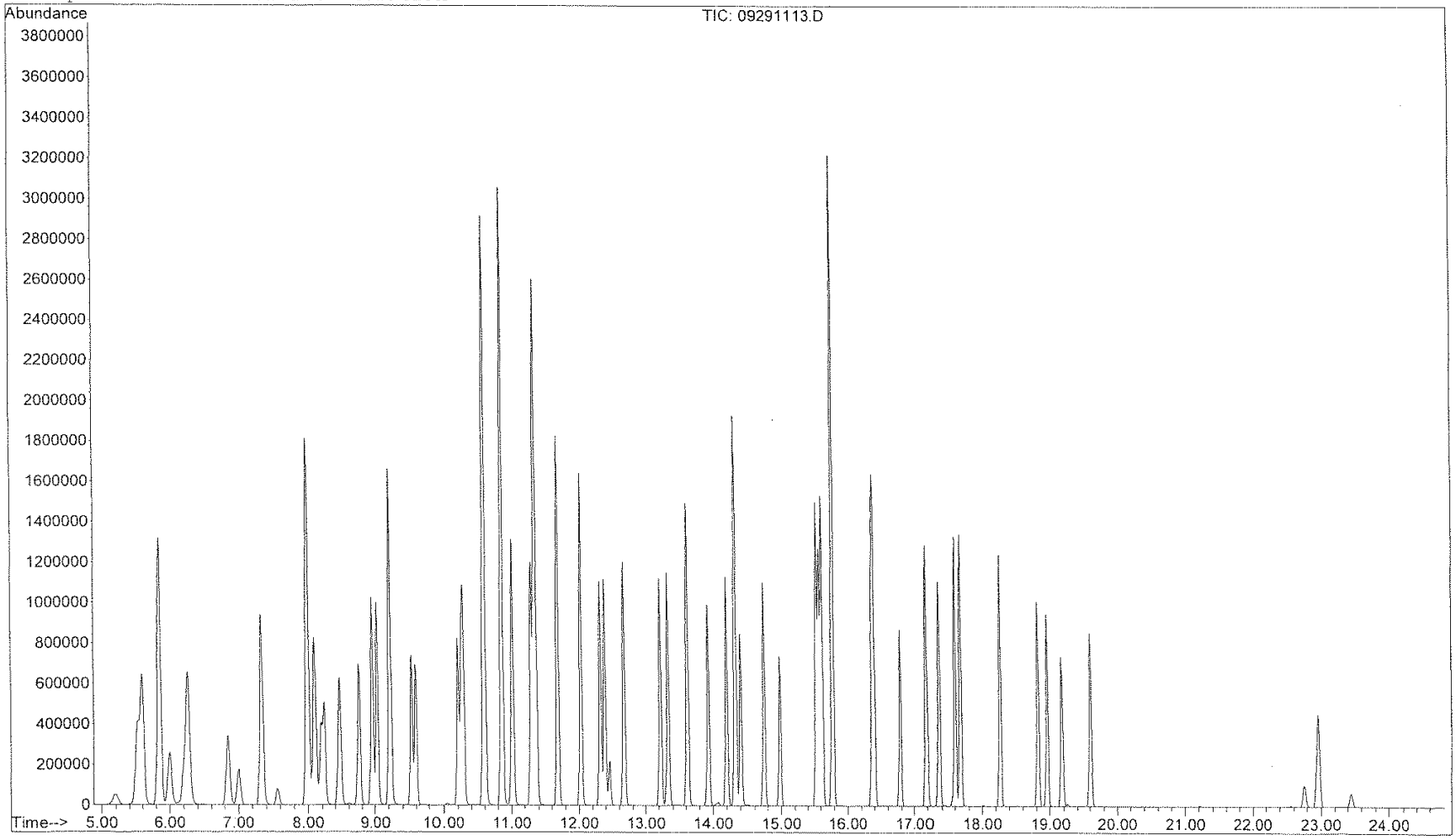
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.32	166	669432	9.73	ppbv		98
45) 2-Hexanone	14.41	43	766026	10.36	ppbv		91
46) Chlorodibromomethane	14.75	129	687605	9.74	ppbv		99
47) 1,2-Dibromoethane	14.98	107	626805	9.57	ppbv		99
49) Chlorobenzene	15.58	112	781049	9.79	ppbv	#	84
50) Ethylbenzene	15.62	91	1342487	9.86	ppbv		92
51) m,p-Xylene	15.78	91	2309182	21.01	ppbv		90
52) o-Xylene	16.37	91	1002488	9.98	ppbv	#	87
53) Styrene	16.39	104	665487	9.62	ppbv		95
54) Bromoform	16.78	173	506389	9.81	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	740078	10.37	ppbv	#	98
57) 4-Ethyltoluene	17.60	105	1069798	9.21	ppbv		95
58) 1,3,5-Trimethylbenzene	17.68	105	897486	9.02	ppbv		95
59) 1,2,4-Trimethylbenzene	18.27	105	858758	9.29	ppbv		96
60) 1,3-Dichlorobenzene	18.82	146	538129	9.81	ppbv	#	96
61) 1,4-Dichlorobenzene	18.96	146	496095	9.67	ppbv	#	96
62) Benzyl chloride	19.17	91	713968	10.69	ppbv		95
63) 1,2-Dichlorobenzene	19.61	146	494088	9.91	ppbv	#	97
64) 1,2,4-Trichlorobenzene	22.76	180	69019	9.62	ppbv		98
65) Hexachlorobutadiene	22.97	225	182432	10.63	ppbv		98
66) Naphthalene	23.45	128	111409	10.27	ppbv		99

(#) = qualifier out of range (m) = manual integration
09291113.D 092911V1.M Thu Oct 20 12:15:24 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092911\09291113.D Vial: 2
Acq On : 29 Sep 2011 4:22 pm Operator: RACHEL HILL
Sample : VOA1 ICV 092711 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Sep 30 7:21 2011 Quant Results File: 092911V1.RES

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111004A **Run No.:** 43244

Analytical Run Date: 10/4/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

Run Comments: ch rev 10/10/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 092911	BFB_TUNE	TUNE	R43244	10/4/2011 11:02:00 AM	Celeste Hoitash		
1ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 2:53:00 PM	Celeste Hoitash		
10ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 3:36:00 PM	Celeste Hoitash		
12ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 4:20:00 PM	Celeste Hoitash		
15ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 5:03:00 PM	Celeste Hoitash		
20ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 5:47:00 PM	Celeste Hoitash		
30ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 6:32:00 PM	Celeste Hoitash		
50ppbv ICAL	EPA_TO15	ICAL	R43244	10/4/2011 7:18:00 PM	Celeste Hoitash		
BFB1 VOA1 100411	BFB_TUNE	TUNE	R43244	10/4/2011 8:00:00 PM	Celeste Hoitash		
ICV1 VOA1 100411	EPA_TO15	ICV	R43244	10/4/2011 8:43:00 PM	Celeste Hoitash		
RLVS1 VOA1 10041	EPA_TO15	RLVS	R43244	10/4/2011 9:29:00 PM	Celeste Hoitash		
Blank VOA1 10041	EPA_TO15	MBLK	R43244	10/4/2011 10:19:00 PM	Celeste Hoitash		
1108688-020A	EPA_TO15	SAMP	R43244	10/4/2011 11:03:00 PM	Celeste Hoitash	H	
1108688-021A	EPA_TO15	SAMP	R43244	10/4/2011 11:47:00 PM	Celeste Hoitash	H	
1108688-022A	EPA_TO15	SAMP	R43244	10/5/2011 12:32:00 AM	Celeste Hoitash	H	
1108688-023A	EPA_TO15	SAMP	R43244	10/5/2011 1:16:00 AM	Celeste Hoitash	H	
1108899-037A	EPA_TO15	SAMP	R43244	10/5/2011 1:59:00 AM	Celeste Hoitash	H	
1108688-013A	EPA_TO15	SAMP	R43244	10/5/2011 4:10:00 AM	Celeste Hoitash	H	
1108688-014A	EPA_TO15	SAMP	R43244	10/5/2011 4:54:00 AM	Celeste Hoitash	H	
1108688-015A	EPA_TO15	SAMP	R43244	10/5/2011 5:39:00 AM	Celeste Hoitash	H	
1108688-017A	EPA_TO15	SAMP	R43244	10/5/2011 7:11:00 AM	Celeste Hoitash	H	
1108688-018A	EPA_TO15	SAMP	R43244	10/5/2011 7:56:00 AM	Celeste Hoitash	H	
1108688-019A	EPA_TO15	SAMP	R43244	10/5/2011 8:42:00 AM	Celeste Hoitash	H	
1108688-005A	EPA_TO15	SAMP	R43244	10/5/2011 9:27:00 AM	Celeste Hoitash	H	
1108899-038A	EPA_TO15	SAMP	R43244	10/5/2011 10:14:00 AM	Celeste Hoitash	H	
1108688-025A	EPA_TO15	SAMP	R43244	10/5/2011 11:04:00 AM	Celeste Hoitash	H	
1108688-010A	EPA_TO15	SAMP	R43244	10/5/2011 11:47:00 AM	Celeste Hoitash	H	
1108688-010ADUP	EPA_TO15	DUP	R43244	10/5/2011 12:31:00 PM	Celeste Hoitash	H	
1108688-006A	EPA_TO15	SAMP	R43244	10/5/2011 1:14:00 PM	Celeste Hoitash	H	
1108688-008A	EPA_TO15	SAMP	R43244	10/5/2011 2:42:00 PM	Celeste Hoitash	H	
1108688-009A	EPA_TO15	SAMP	R43244	10/5/2011 3:28:00 PM	Celeste Hoitash	H	
1108688-016A	EPA_TO15	SAMP	R43244	10/5/2011 5:03:00 PM	Celeste Hoitash	H	
RLVS2 VOA1 10041	EPA_TO15	RLVS	R43244	10/5/2011 7:07:00 PM	Celeste Hoitash		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
843279	ICV1 VOA1 100411	EPA_TO15	ICV	\I\DATA\100411\10/4/2011 8:43:0		1	R43244		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	11.02	11.02		9.6	0	0	0.107	1	0	115%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.06	10.06		10	0	0	0.211	1	0	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.05	11.05		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.81	9.81		9.8	0	0	0.2	1	0	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.38	10.38		9.7	0	0	0.111	1	0	107%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.11	11.11		9.9	0	0	0.097	1	0	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.19	8.19		9.1	0	0	0.271	1	0	90%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.38	9.38		9.8	0	0	0.245	1	0	96%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.65	9.65		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.21	9.21		9.7	0	0	0.208	1	0	95%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.68	10.68		9.7	0	0	0.196	1	0	110%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.08	10.08		9.8	0	0	0.224	1	0	103%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.29	9.29		9.7	0	0	0.24	1	0	96%	70	130	0%	
1,3-Butadiene	A	ppbv	12.42	12.42		9.8	0	0	0.152	1	0	127%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.31	9.31		9.7	0	0	0.202	1	0	96%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.25	9.25		9.6	0	0	0.194	1	0	96%	70	130	0%	
1,4-Dioxane	A	ppbv	10.27	10.27		9.6	0	0	0.128	1	0	107%	70	130	0%	
2-Butanone	A	ppbv	10.49	10.49		9.9	0	0	0.287	1	0	106%	70	130	0%	
2-Hexanone	A	ppbv	10.46	10.46		9.8	0	0	0.135	1	0	107%	70	130	0%	
2-Propanol	A	ppbv	11.65	11.65		10.1	0	0	0.329	1	0	115%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.55	10.55		10	0	0	0.157	1	0	106%	70	130	0%	
Acetone	A	ppbv	11.04	11.04		10	0	0	0.43	1	0	110%	70	130	0%	
Benzene	A	ppbv	10.06	10.06		9.6	0	0	0.126	1	0	105%	70	130	0%	
Benzyl chloride	A	ppbv	10.35	10.35		9.7	0	0	0.155	1	0	107%	70	130	0%	
Bromodichloromethane	A	ppbv	9.92	9.92		9.6	0	0	0.156	1	0	103%	70	130	0%	
Bromoform	A	ppbv	9.68	9.68		9.6	0	0	0.197	1	0	101%	70	130	0%	
Bromomethane	A	ppbv	10.12	10.12		9.3	0	0	0.075	1	0	109%	70	130	0%	
Carbon disulfide	A	ppbv	10.57	10.57		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.23	10.23		9.5	0	0	0.114	1	0	108%	70	130	0%	
Chlorobenzene	A	ppbv	9.94	9.94		9.9	0	0	0.275	1	0	100%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.74	9.74		9.2	0	0	0.165	1	0	106%	70	130	0%	
Chloroethane	A	ppbv	10.19	10.19		9.8	0	0	0.063	1	0	104%	70	130	0%	
Chloroform	A	ppbv	11.18	11.18		9.4	0	0	0.126	1	0	119%	70	130	0%	
Chloromethane	A	ppbv	10.61	10.61		9.8	0	0	0.104	1	0	108%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
843279	ICV1 VOA1 100411	EPA_TO15	ICV	\1\DATA\100411\10/4/2011 8:43:0		1	R43244		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	10.31	10.31		9.8	0	0	0.107	1	0	105%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.81	9.81		9.5	0	0	0.166	1	0	103%	70	130	0%	
Cyclohexane	A	ppbv	11.28	11.28		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.84	9.84		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	10.66	10.66		9.2	0	0	1.962	5	0	116%	70	130	0%	
Ethyl acetate	A	ppbv	10.47	10.47		9.8	0	0	0.157	1	0	107%	70	130	0%	
Ethylbenzene	A	ppbv	9.93	9.93		9.8	0	0	0.737	2	0	101%	70	130	0%	
Heptane	A	ppbv	11.05	11.05		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.21	9.21		9.4	0	0	0.374	2	0	98%	70	130	0%	
m,p-Xylene	A	ppbv	20.61	20.61		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.82	10.82		10	0	0	2.077	5	0	108%	70	130	0%	
n-Hexane	A	ppbv	10.9	10.9		10.1	0	0	0.692	2	0	108%	70	130	0%	
Naphthalene	A	ppbv	8.18	8.18		9.2	0	0	0.247	1	0	89%	70	130	0%	
o-Xylene	A	ppbv	10.03	10.03		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	11.06	11.06		10.2	0	0	0.075	1	0	108%	70	130	0%	
Styrene	A	ppbv	9.75	9.75		9.8	0	0	0.263	1	0	99%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.66	10.66		9.9	0	0	0.228	1	0	108%	70	130	0%	
Tetrachloroethene	A	ppbv	9.78	9.78		9.6	0	0	0.148	1	0	102%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.01	11.01		10	0	0	0.201	1	0	110%	70	130	0%	
Toluene	A	ppbv	9.9	9.9		9.8	0	0	0.158	1	0	101%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.7	10.7		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.48	9.48		9.1	0	0	0.171	1	0	104%	70	130	0%	
Trichloroethene	A	ppbv	9.82	9.82		9.6	0	0	0.119	1	0	102%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.5	10.5		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	11.31	11.31		9.9	0	0	0.266	1	0	114%	70	130	0%	
Vinyl chloride	A	ppbv	12.07	12.07		9.4	0	0	0.072	1	0	128%	70	130	0%	
Xylenes, Total	C	ppbv	30.64	30.64		29.2	0	0	0.782	3	0	105%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		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	12.74	12.74		12.5	0	0	0	0	0	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100411\10041114.D Vial: 2
Acq On : 4 Oct 2011 8:43 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 100411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
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	114	0.00
2	T	Propylene	1.300	1.410	-8.5	109	0.00
3	T	Dichlorodifluoromethane	3.361	3.594	-6.9	112	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.206	2.357	-6.8	112	0.00
5	T	Chloromethane	1.509	1.684	-11.6	107	0.00
6	T	Vinyl chloride	1.416	1.818	-28.4	106	0.00
7	T	1,3-Butadiene	1.336	1.693	-26.7	112	-0.01
8	T	Bromomethane	1.193	1.299	-8.9	112	0.00
9	T	Chloroethane	0.750	0.830	-10.7	112	0.00
10	T	Trichlorofluoromethane	3.085	3.374	-9.4	116	0.00
11	T	Ethanol	0.332	0.385	-16.0	116	0.00
12	T	Freon113	2.437	2.748	-12.8	119	0.00
13	T	1,1-Dichloroethene	2.063	2.315	-12.2	115	0.00
14	T	Acetone	1.803	1.990	-10.4	114	0.00
15	T	Carbon disulfide	3.309	3.606	-9.0	111	0.00
16	T	2-Propanol	1.713	1.976	-15.4	112	-0.01
17	T	Methylene chloride	1.527	1.653	-8.3	114	0.00
18	T	tert-Butyl Methyl Ether	2.327	2.506	-7.7	115	0.00
19	T	trans-1,2-Dichloroethene	1.825	1.993	-9.2	117	0.00
20	T	n-Hexane	2.013	2.173	-7.9	115	0.00
21	T	1,1-Dichloroethane	1.874	2.006	-7.0	116	0.00
22	T	Vinyl acetate	2.680	3.062	-14.3	113	0.00
23	T	cis-1,2-Dichloroethene	1.049	1.104	-5.2	115	0.00
24	T	2-Butanone	1.928	2.043	-6.0	110	0.00
25	T	Ethyl acetate	2.454	2.623	-6.9	106	0.00
26	T	Tetrahydrofuran	1.227	1.351	-10.1	108	0.00
27	T	Chloroform	2.266	2.584	-14.0	117	0.00
28	T	1,1,1-Trichloroethane	2.202	2.527	-14.8	116	0.00
29	T	Cyclohexane	2.049	2.359	-15.1	113	0.00
30	T	Carbon tetrachloride	1.952	2.102	-7.7	116	0.00
31	T	Benzene	2.543	2.664	-4.8	113	0.00
32	T	1,2-Dichloroethane	1.300	1.432	-10.2	114	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	110	0.00
34	T	Heptane	0.891	0.995	-11.7	110	0.00
35	T	Trichloroethene	0.447	0.457	-2.2	113	0.00
36	T	1,2-Dichloropropane	0.348	0.358	-2.9	111	0.00
37	T	1,4-Dioxane	0.119	0.127	-6.7	112	0.00
38	T	Bromodichloromethane	0.643	0.664	-3.3	113	0.00
39	T	cis-1,3-Dichloropropene	0.518	0.534	-3.1	112	0.00
40	T	4-Methyl-2-pentanone	0.239	0.252	-5.4	109	0.00
41	T	Toluene	0.912	0.921	-1.0	110	0.00
42	T	trans-1,3-Dichloropropene	0.450	0.468	-4.0	111	0.00
43	T	1,1,2-Trichloroethane	0.309	0.309	0.0	110	0.00
44	T	Tetrachloroethene	0.494	0.503	-1.8	112	0.00
45	T	2-Hexanone	0.495	0.529	-6.9	108	0.00
46	T	Chlorodibromomethane	0.484	0.481	0.6	111	0.00
47	T	1,2-Dibromoethane	0.444	0.446	-0.5	110	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100411\10041114.D Vial: 2
Acq On : 4 Oct 2011 8:43 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 100411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
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)
49	T	Chlorobenzene	0.917	0.921	-0.4	108	0.00
50	T	Ethylbenzene	1.564	1.585	-1.3	108	0.00
51	T	m,p-Xylene	1.297	1.392	-7.3	109	0.00
52	T	o-Xylene	1.158	1.162	-0.3	109	0.00
53	T	Styrene	0.790	0.786	0.5	107	0.00
54	T	Bromoform	0.589	0.595	-1.0	105	0.00
55	S	4-Bromofluorobenzene	0.559	0.570	-2.0	104	0.00
56	T	1,1,2,2-Tetrachloroethane	0.846	0.851	-0.6	101	0.00
57	T	4-Ethyltoluene	1.328	1.291	2.8	105	0.00
58	T	1,3,5-Trimethylbenzene	1.134	1.087	4.1	103	0.00
59	T	1,2,4-Trimethylbenzene	1.060	1.015	4.2	102	0.00
60	T	1,3-Dichlorobenzene	0.634	0.608	4.1	98	0.00
61	T	1,4-Dichlorobenzene	0.584	0.563	3.6	98	0.00
62	T	Benzyl chloride	0.720	0.768	-6.7	98	0.00
63	T	1,2-Dichlorobenzene	0.580	0.551	5.0	95	0.00
64	T	1,2,4-Trichlorobenzene	0.077	0.069	10.4	77	-0.01
65	T	Hexachlorobutadiene	0.181	0.177	2.2	82	0.00
66		Naphthalene	0.120	0.106	11.7	75	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100411\10041114.D
Acq On : 4 Oct 2011 8:43 pm
Sample : ICV1 VOA1 100411
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 5 7:40 2011

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

Quant Results File: 100411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
Response via : Initial Calibration
DataAcq Meth : 100411V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	473339	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.68	114	1399195	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	841049	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	479428	12.74	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.92%				
Target Compounds							Qvalue
2) Propylene	5.52	41	544583	11.06	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1252025	9.84	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	847931	10.15	ppbv	#	68
5) Chloromethane	6.00	50	605959	10.61	ppbv		99
6) Vinyl chloride	6.22	62	647063	12.07	ppbv	#	99
7) 1,3-Butadiene	6.27	39	628444	12.42	ppbv		91
8) Bromomethane	6.85	94	457303	10.12	ppbv	#	97
9) Chloroethane	7.00	64	289191	10.19	ppbv		96
10) Trichlorofluoromethane	7.33	101	1226470	10.50	ppbv	#	98
11) Ethanol	7.56	45	133968	10.66	ppbv		99
12) Freon113	7.99	101	1019745	11.05	ppbv		87
13) 1,1-Dichloroethene	8.10	61	867782	11.11	ppbv	#	85
14) Acetone	8.19	43	753580	11.04	ppbv	#	90
15) Carbon disulfide	8.46	76	1324535	10.57	ppbv	#	100
16) 2-Propanol	8.23	45	755739	11.65	ppbv	#	78
17) Methylene chloride	8.75	49	625917	10.82	ppbv	#	76
18) tert-Butyl Methyl Ether	8.95	73	939274	10.66	ppbv	#	87
19) trans-1,2-Dichloroethene	9.03	61	739774	10.70	ppbv	#	81
20) n-Hexane	9.22	57	831060	10.90	ppbv	#	86
21) 1,1-Dichloroethane	9.60	63	736978	10.38	ppbv	#	97
22) Vinyl acetate	9.53	43	1148031	11.31	ppbv	#	94
23) cis-1,2-Dichloroethene	10.28	96	409637	10.31	ppbv	#	79
24) 2-Butanone	10.25	43	766003	10.49	ppbv	#	88
25) Ethyl acetate	10.19	43	973303	10.47	ppbv	#	99
26) Tetrahydrofuran	10.59	42	511559	11.01	ppbv		88
27) Chloroform	10.60	83	958937	11.18	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	918568	11.02	ppbv	#	94
29) Cyclohexane	10.86	56	875460	11.28	ppbv		85
30) Carbon tetrachloride	11.02	117	756208	10.23	ppbv		97
31) Benzene	11.30	78	968552	10.06	ppbv		93
32) 1,2-Dichloroethane	11.37	62	525896	10.68	ppbv	#	97
34) Heptane	11.34	43	1102646	11.05	ppbv	#	86
35) Trichloroethene	12.02	130	490971	9.82	ppbv		91
36) 1,2-Dichloropropane	12.39	63	392645	10.08	ppbv		97
37) 1,4-Dioxane	12.46	88	136333	10.27	ppbv	#	81
38) Bromodichloromethane	12.67	83	713719	9.92	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	568259	9.81	ppbv		95
40) 4-Methyl-2-pentanone	13.33	58	282403	10.55	ppbv	#	91
41) Toluene	13.63	91	1010333	9.90	ppbv		96
42) trans-1,3-Dichloropropene	13.93	75	477050	9.48	ppbv		95
43) 1,1,2-Trichloroethane	14.20	97	338993	9.81	ppbv		96

(#) = qualifier out of range (m) = manual integration
10041114.D 100411V1.M Mon Oct 10 12:08:19 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100411\10041114.D
Acq On : 4 Oct 2011 8:43 pm
Sample : ICV1 VOA1 100411
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 5 7:40 2011

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

Quant Results File: 100411V1.RES

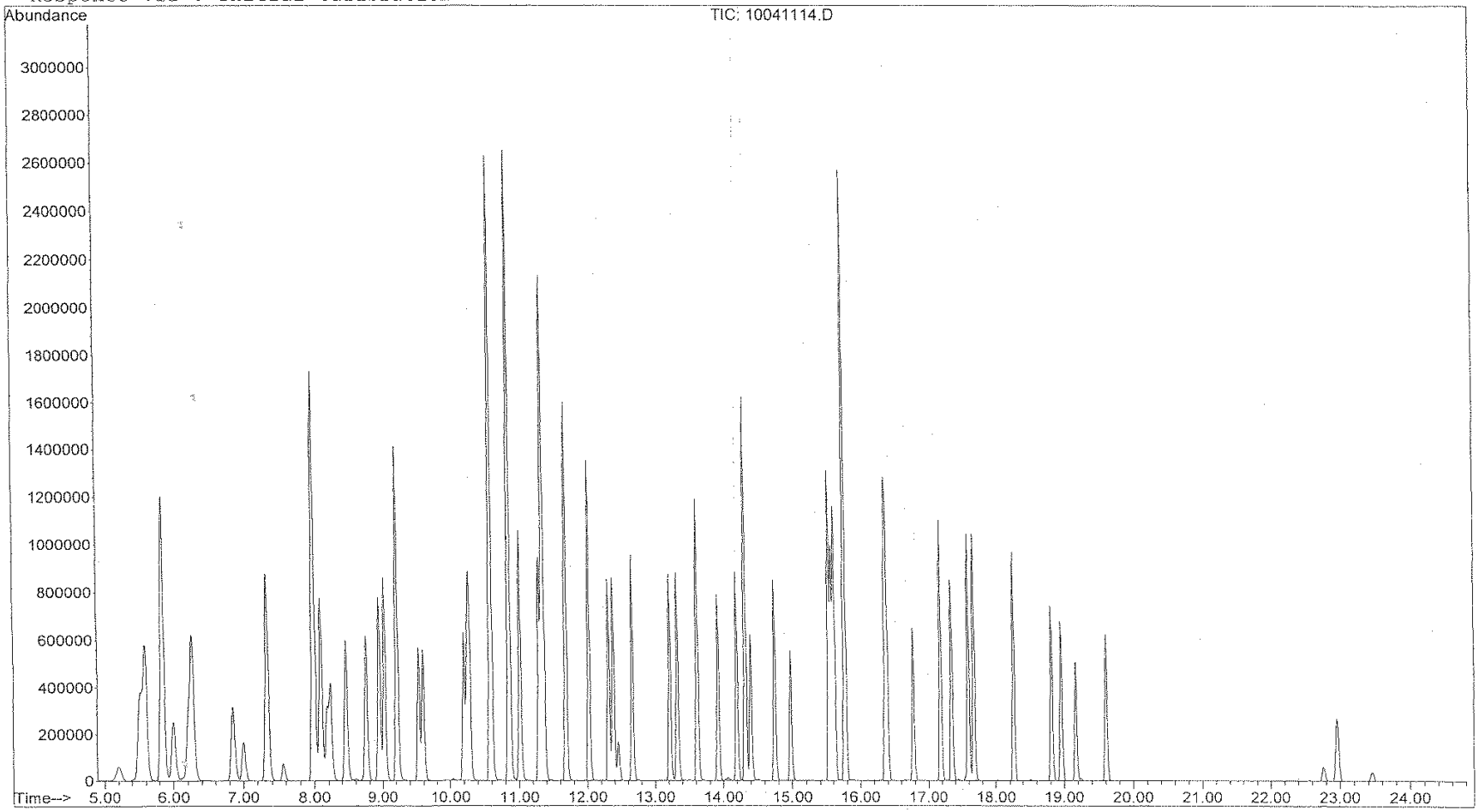
Quant Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
Response via : Initial Calibration
DataAcq Meth : 100411V1

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.33	166	540792	9.78	ppbv		98
45) 2-Hexanone	14.40	43	579755	10.46	ppbv		91
46) Chlorodibromomethane	14.75	129	528048	9.74	ppbv		98
47) 1,2-Dibromoethane	14.99	107	479231	9.65	ppbv		100
49) Chlorobenzene	15.58	112	613637	9.94	ppbv	#	84
50) Ethylbenzene	15.62	91	1044972	9.93	ppbv		92
51) m,p-Xylene	15.77	91	1797764	20.61	ppbv		89
52) o-Xylene	16.37	91	781519	10.03	ppbv	#	87
53) Styrene	16.40	104	518585	9.75	ppbv		96
54) Bromoform	16.78	173	384044	9.68	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	572691	10.06	ppbv	#	99
57) 4-Ethyltoluene	17.60	105	851052	9.52	ppbv		96
58) 1,3,5-Trimethylbenzene	17.68	105	709148	9.29	ppbv		96
59) 1,2,4-Trimethylbenzene	18.26	105	669266	9.38	ppbv		97
60) 1,3-Dichlorobenzene	18.82	146	396933	9.31	ppbv	#	97
61) 1,4-Dichlorobenzene	18.96	146	363474	9.25	ppbv		97
62) Benzyl chloride	19.17	91	501304	10.35	ppbv		96
63) 1,2-Dichlorobenzene	19.61	146	359647	9.21	ppbv	#	97
64) 1,2,4-Trichlorobenzene	22.76	180	42456	8.19	ppbv		98
65) Hexachlorobutadiene	22.97	225	111895	9.21	ppbv		98
66) Naphthalene	23.45	128	65922	8.18	ppbv		98

(#) = qualifier out of range (m) = manual integration
10041114.D 100411V1.M Mon Oct 10 12:08:19 2011

Data File : C:\HPCHEM\1\DATA\100411\10041114.D Vial: 2
Acq On : 4 Oct 2011 8:43 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 100411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 5 7:40 2011 Quant Results File: 100411V1.RES

Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111006A **Run No.:** 43330

Analytical Run Date: 10/6/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 43330 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

Run Comments: ch rev 10/10/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 100611	BFB_TUNE	TUNE	R43330	10/6/2011 9:58:00 AM	Celeste Hoitash		
1ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 1:01:00 PM	Celeste Hoitash		
10ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 1:42:00 PM	Celeste Hoitash		
12ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 2:24:00 PM	Celeste Hoitash		
15ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 3:05:00 PM	Celeste Hoitash		
20ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 3:48:00 PM	Celeste Hoitash		
30ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 4:31:00 PM	Celeste Hoitash		
50ppbv ICAL	EPA_TO15	ICAL	R43330	10/6/2011 5:15:00 PM	Celeste Hoitash		
BFB2 VOA1 100611	BFB_TUNE	TUNE	R43330	10/6/2011 5:56:00 PM	Celeste Hoitash		
CCV1 VOA1 100611	EPA_TO15	ICV	R43330	10/6/2011 6:37:00 PM	Celeste Hoitash		
RLVS1 VOA1 10061	EPA_TO15	RLVS	R43330	10/6/2011 7:40:00 PM	Celeste Hoitash		
BLANK VOA1 10061	EPA_TO15	MBLK	R43330	10/6/2011 8:28:00 PM	Celeste Hoitash		
1108899-017A	EPA_TO15	SAMP	R43330	10/6/2011 9:11:00 PM	Celeste Hoitash	H	
1108899-018A	EPA_TO15	SAMP	R43330	10/6/2011 9:56:00 PM	Celeste Hoitash	H	
1108688-001A	EPA_TO15	SAMP	R43330	10/6/2011 10:40:00 PM	Celeste Hoitash	H	
1108688-002A	EPA_TO15	SAMP	R43330	10/6/2011 11:25:00 PM	Celeste Hoitash	H	
1108688-003A	EPA_TO15	SAMP	R43330	10/7/2011 7:52:00 AM	Celeste Hoitash	H	
1108688-004A	EPA_TO15	SAMP	R43330	10/7/2011 8:34:00 AM	Celeste Hoitash	H	
1109555-032A	EPA_TO15	SAMP	R43330	10/7/2011 10:04:00 AM	Celeste Hoitash	H	
1109555-014A	EPA_TO15	SAMP	R43330	10/7/2011 10:53:00 AM	Celeste Hoitash	H	
1109555-018A	EPA_TO15	SAMP	R43330	10/7/2011 11:38:00 AM	Celeste Hoitash	H	
1109555-019A	EPA_TO15	SAMP	R43330	10/7/2011 12:20:00 PM	Celeste Hoitash	H	
1109555-001A	EPA_TO15	SAMP	R43330	10/7/2011 1:03:00 PM	Celeste Hoitash	H	Over-diluted sample. Reported here to show that sample and duplicate were analyzed. Will re-run at a lower dilution.
1109555-001ADUP	EPA_TO15	DUP	R43330	10/7/2011 1:45:00 PM	Celeste Hoitash	H	
1109555-006A	EPA_TO15	SAMP	R43330	10/7/2011 2:33:00 PM	Celeste Hoitash		
1108688-011A	EPA_TO15	SAMP	R43330	10/7/2011 3:15:00 PM	Celeste Hoitash	H	
1108899-016A	EPA_TO15	SAMP	R43330	10/7/2011 4:00:00 PM	Celeste Hoitash	H	
RLVS2 VOA1 10061	EPA_TO15	RLVS	R43330	10/7/2011 5:26:00 PM	Celeste Hoitash		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
845955	CCV1 VOA1 100611	EPA_TO15	ICV	\1\DATA\100611\10/6/2011 6:37:0		1	R43330		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	11.46	11.46		9.6	0	0	0.107	1	0	119%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.2	10.2		10	0	0	0.211	1	0	102%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.09	11.09		9.8	0	0	0.108	1	0	113%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.13	10.13		9.8	0	0	0.2	1	0	103%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.06	11.06		9.7	0	0	0.111	1	0	114%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.98	10.98		9.9	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.37	7.37		9.1	0	0	0.271	1	0	81%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.28	9.28		9.8	0	0	0.245	1	0	95%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.89	9.89		9.6	0	0	0.186	1	0	103%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.86	8.86		9.7	0	0	0.208	1	0	91%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.46	11.46		9.7	0	0	0.196	1	0	118%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.59	10.59		9.8	0	0	0.224	1	0	108%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.41	9.41		9.7	0	0	0.24	1	0	97%	70	130	0%	
1,3-Butadiene	A	ppbv	12.32	12.32		9.8	0	0	0.152	1	0	126%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.15	9.15		9.7	0	0	0.202	1	0	94%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	8.92	8.92		9.6	0	0	0.194	1	0	93%	70	130	0%	
1,4-Dioxane	A	ppbv	10.22	10.22		9.6	0	0	0.128	1	0	106%	70	130	0%	
2-Butanone	A	ppbv	11.26	11.26		9.9	0	0	0.287	1	0	114%	70	130	0%	
2-Hexanone	A	ppbv	10.71	10.71		9.8	0	0	0.135	1	0	109%	70	130	0%	
2-Propanol	A	ppbv	11.76	11.76		10.1	0	0	0.329	1	0	116%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.7	10.7		10	0	0	0.157	1	0	107%	70	130	0%	
Acetone	A	ppbv	11.59	11.59		10	0	0	0.43	1	0	116%	70	130	0%	
Benzene	A	ppbv	10.84	10.84		9.6	0	0	0.126	1	0	113%	70	130	0%	
Benzyl chloride	A	ppbv	10.38	10.38		9.7	0	0	0.155	1	0	107%	70	130	0%	
Bromodichloromethane	A	ppbv	10.35	10.35		9.6	0	0	0.156	1	0	108%	70	130	0%	
Bromoform	A	ppbv	9.87	9.87		9.6	0	0	0.197	1	0	103%	70	130	0%	
Bromomethane	A	ppbv	9.96	9.96		9.3	0	0	0.075	1	0	107%	70	130	0%	
Carbon disulfide	A	ppbv	10.57	10.57		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.79	10.79		9.5	0	0	0.114	1	0	114%	70	130	0%	M
Chlorobenzene	A	ppbv	10.29	10.29		9.9	0	0	0.275	1	0	104%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.11	10.11		9.2	0	0	0.165	1	0	110%	70	130	0%	
Chloroethane	A	ppbv	9.9	9.9		9.8	0	0	0.063	1	0	101%	70	130	0%	
Chloroform	A	ppbv	11.49	11.49		9.4	0	0	0.126	1	0	122%	70	130	0%	
Chloromethane	A	ppbv	10.37	10.37		9.8	0	0	0.104	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
845955	CCV1 VOA1 100611	EPA_TO15	ICV	\1\DATA\100611\	10/6/2011 6:37:0	1	R43330		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	10.6	10.6		9.8	0	0	0.107	1	0	108%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.21	10.21		9.5	0	0	0.166	1	0	107%	70	130	0%	
Cyclohexane	A	ppbv	11.66	11.66		9.8	0	0	0.684	2	0	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.53	9.53		9.2	0	0	0.086	1	0	104%	70	130	0%	
Ethanol	A	ppbv	10.82	10.82		9.2	0	0	1.962	5	0	118%	70	130	0%	
Ethyl acetate	A	ppbv	11	11		9.8	0	0	0.157	1	0	112%	70	130	0%	
Ethylbenzene	A	ppbv	10.42	10.42		9.8	0	0	0.737	2	0	106%	70	130	0%	
Heptane	A	ppbv	11.23	11.23		9.9	0	0	0.249	1	0	113%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.48	8.48		9.4	0	0	0.374	2	0	90%	70	130	0%	
m,p-Xylene	A	ppbv	21.73	21.73		19.2	0	0	0.524	2	0	113%	70	130	0%	
Methylene chloride	A	ppbv	11	11		10	0	0	2.077	5	0	110%	70	130	0%	
n-Hexane	A	ppbv	11.3	11.3		10.1	0	0	0.692	2	0	112%	70	130	0%	
Naphthalene	A	ppbv	7.26	7.26		9.2	0	0	0.247	1	0	79%	70	130	0%	
o-Xylene	A	ppbv	10.5	10.5		10	0	0	0.258	1	0	105%	70	130	0%	
Propylene	A	ppbv	10.64	10.64		10.2	0	0	0.075	1	0	104%	70	130	0%	
Styrene	A	ppbv	10	10		9.8	0	0	0.263	1	0	102%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.52	11.52		9.9	0	0	0.228	1	0	116%	70	130	0%	
Tetrachloroethene	A	ppbv	9.82	9.82		9.6	0	0	0.148	1	0	102%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.61	11.61		10	0	0	0.201	1	0	116%	70	130	0%	
Toluene	A	ppbv	10.35	10.35		9.8	0	0	0.158	1	0	106%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.97	10.97		9.8	0	0	0.117	1	0	112%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.73	9.73		9.1	0	0	0.171	1	0	107%	70	130	0%	
Trichloroethene	A	ppbv	9.95	9.95		9.6	0	0	0.119	1	0	104%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.46	10.46		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	12.28	12.28		9.9	0	0	0.266	1	0	124%	70	130	0%	
Vinyl chloride	A	ppbv	11.58	11.58		9.4	0	0	0.072	1	0	123%	70	130	0%	
Xylenes, Total	C	ppbv	32.23	32.23		29.2	0	0	0.782	3	0	110%	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	12.42	12.42		12.5	0	0	0	0	0	99%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100611\10061112.D Vial: 12
Acq On : 6 Oct 2011 6:37 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
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	116	0.00
2	T	Propylene	1.304	1.361	-4.4	107	0.00
3	T	Dichlorodifluoromethane	3.309	3.426	-3.5	111	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.171	2.237	-3.0	111	0.00
5	T	Chloromethane	1.531	1.672	-9.2	105	0.01
6	T	Vinyl chloride	1.379	1.699	-23.2	118	0.02
7	T	1,3-Butadiene	1.286	1.618	-25.8	115	0.00
8	T	Bromomethane	1.173	1.256	-7.1	112	0.00
9	T	Chloroethane	0.744	0.801	-7.7	109	0.00
10	T	Trichlorofluoromethane	3.006	3.276	-9.0	116	0.00
11	T	Ethanol	0.374	0.440	-17.6	107	0.00
12	T	Freon113	2.482	2.808	-13.1	115	0.00
13	T	1,1-Dichloroethene	2.049	2.272	-10.9	111	0.00
14	T	Acetone	2.170	2.514	-15.9	107	0.00
15	T	Carbon disulfide	3.246	3.536	-8.9	111	0.00
16	T	2-Propanol	1.896	2.208	-16.5	106	0.00
17	T	Methylene chloride	1.636	1.799	-10.0	109	0.00
18	T	tert-Butyl Methyl Ether	2.877	3.348	-16.4	109	0.00
19	T	trans-1,2-Dichloroethene	1.981	2.216	-11.9	111	0.00
20	T	n-Hexane	2.203	2.465	-11.9	109	0.00
21	T	1,1-Dichloroethane	2.213	2.525	-14.1	109	0.00
22	T	Vinyl acetate	3.355	4.162	-24.1	105	0.00
23	T	cis-1,2-Dichloroethene	1.183	1.280	-8.2	110	0.00
24	T	2-Butanone	2.302	2.620	-13.8	103	0.00
25	T	Ethyl acetate	2.992	3.358	-12.2	99	0.00
26	T	Tetrahydrofuran	1.500	1.741	-16.1	104	0.00
27	T	Chloroform	2.595	3.042	-17.2	111	0.00
28	T	1,1,1-Trichloroethane	2.490	2.974	-19.4	113	0.00
29	T	Cyclohexane	2.294	2.730	-19.0	109	0.00
30	T	Carbon tetrachloride	2.155	2.446	-13.5	115	0.00
31	T	Benzene	3.091	3.489	-12.9	108	0.00
32	T	1,2-Dichloroethane	1.585	1.873	-18.2	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	116	0.00
34	T	Heptane	1.015	1.151	-13.4	108	0.00
35	T	Trichloroethene	0.493	0.511	-3.7	112	0.00
36	T	1,2-Dichloropropane	0.425	0.459	-8.0	106	0.00
37	T	1,4-Dioxane	0.138	0.147	-6.5	107	0.00
38	T	Bromodichloromethane	0.756	0.814	-7.7	109	0.00
39	T	cis-1,3-Dichloropropene	0.612	0.658	-7.5	108	0.00
40	T	4-Methyl-2-pentanone	0.281	0.301	-7.1	105	0.00
41	T	Toluene	1.089	1.150	-5.6	107	0.00
42	T	trans-1,3-Dichloropropene	0.526	0.562	-6.8	108	0.00
43	T	1,1,2-Trichloroethane	0.364	0.376	-3.3	108	0.00
44	T	Tetrachloroethene	0.546	0.559	-2.4	111	0.00
45	T	2-Hexanone	0.592	0.647	-9.3	103	0.00
46	T	Chlorodibromomethane	0.560	0.578	-3.2	109	0.00
47	T	1,2-Dibromoethane	0.518	0.534	-3.1	108	0.00

(#) = Out of Range
10061112.D 100611V1.M Thu Oct 20 17:36:21 2011 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\100611\10061112.D Vial: 12
Acq On : 6 Oct 2011 6:37 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
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)
49	T	Chlorobenzene	1.075	1.117	-3.9	107	0.00
50	T	Ethylbenzene	1.853	1.970	-6.3	108	0.00
51	T	m,p-Xylene	1.541	1.744	-13.2	109	0.00
52	T	o-Xylene	1.353	1.421	-5.0	110	0.00
53	T	Styrene	0.921	0.940	-2.1	107	0.00
54	T	Bromoform	0.664	0.683	-2.9	110	0.00
55	S	4-Bromofluorobenzene	0.546	0.543	0.5	115	0.00
56	T	1,1,2,2-Tetrachloroethane	0.927	0.946	-2.0	108	0.00
57	T	4-Ethyltoluene	1.496	1.479	1.1	111	0.00
58	T	1,3,5-Trimethylbenzene	1.265	1.227	3.0	110	0.00
59	T	1,2,4-Trimethylbenzene	1.155	1.093	5.4	109	0.00
60	T	1,3-Dichlorobenzene	0.691	0.652	5.6	103	0.00
61	T	1,4-Dichlorobenzene	0.645	0.599	7.1	100	0.00
62	T	Benzyl chloride	0.798	0.853	-6.9	104	0.00
63	T	1,2-Dichlorobenzene	0.629	0.575	8.6	100	0.00
64	T	1,2,4-Trichlorobenzene	0.096	0.078	18.8	78	0.00
65	T	Hexachlorobutadiene	0.227	0.205	9.7	83	0.00
66		Naphthalene	0.145	0.115	20.7	77	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061112.D Vial: 12
Acq On : 6 Oct 2011 6:37 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 6 20:54 2011 Quant Results File: 100611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
DataAcq Meth : 100611V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	462715	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1385177	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	825483	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	448309	12.42	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 99.36%				
Target Compounds							Qvalue
2) Propylene	5.52	41	513916	10.64	ppbv		97
3) Dichlorodifluoromethane	5.59	85	1166768	9.53	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	786674	9.79	ppbv	#	68
5) Chloromethane	6.00	50	587921	10.37	ppbv		99
6) Vinyl chloride	6.21	62	591247	11.58	ppbv	#	99
7) 1,3-Butadiene	6.26	39	586815	12.32	ppbv		92
8) Bromomethane	6.85	94	432319	9.96	ppbv	#	98
9) Chloroethane	7.00	64	272807	9.90	ppbv	#	95
10) Trichlorofluoromethane	7.33	101	1164304	10.46	ppbv	#	97
11) Ethanol	7.56	45	149885	10.82	ppbv		98
12) Freon113	7.99	101	1018828	11.09	ppbv		87
13) 1,1-Dichloroethene	8.09	61	832572	10.98	ppbv	#	86
14) Acetone	8.19	43	930612	11.59	ppbv		92
15) Carbon disulfide	8.46	76	1269681	10.57	ppbv	#	100
16) 2-Propanol	8.23	45	825660	11.76	ppbv		89
17) Methylene chloride	8.76	49	665904	11.00	ppbv	#	76
18) tert-Butyl Methyl Ether	8.95	73	1226974	11.52	ppbv	#	88
19) trans-1,2-Dichloroethene	9.03	61	804069	10.97	ppbv	#	81
20) n-Hexane	9.22	57	921576	11.30	ppbv	#	86
21) 1,1-Dichloroethane	9.59	63	906533	11.06	ppbv	#	97
22) Vinyl acetate	9.53	43	1525244	12.28	ppbv	#	95
23) cis-1,2-Dichloroethene	10.28	96	464341	10.60	ppbv	#	79
24) 2-Butanone	10.25	43	960095	11.26	ppbv	#	88
25) Ethyl acetate	10.19	43	1218322	11.00	ppbv	#	99
26) Tetrahydrofuran	10.59	42	644522	11.61	ppbv		87
27) Chloroform	10.60	83	1103519	11.49	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	1056792	11.46	ppbv	#	94
29) Cyclohexane	10.86	56	990206	11.66	ppbv		85
30) Carbon tetrachloride	11.01	117	860254m	10.79	ppbv		
31) Benzene	11.30	78	1239854	10.84	ppbv		93
32) 1,2-Dichloroethane	11.37	62	672356	11.46	ppbv	#	97
34) Heptane	11.34	43	1262767	11.23	ppbv	#	87
35) Trichloroethene	12.02	130	543267	9.95	ppbv		92
36) 1,2-Dichloropropane	12.38	63	498248	10.59	ppbv		97
37) 1,4-Dioxane	12.46	88	156742	10.22	ppbv	#	78
38) Bromodichloromethane	12.67	83	866327	10.35	ppbv		98
39) cis-1,3-Dichloropropene	13.22	75	692424	10.21	ppbv		96
40) 4-Methyl-2-pentanone	13.33	58	333241	10.70	ppbv	#	91
41) Toluene	13.62	91	1249316	10.35	ppbv		97
42) trans-1,3-Dichloropropene	13.93	75	567163	9.73	ppbv		95
43) 1,1,2-Trichloroethane	14.20	97	408198	10.13	ppbv		96

(#) = qualifier out of range (m) = manual integration
10061112.D 100611V1.M Mon Oct 10 13:27:15 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061112.D Vial: 12
Acq On : 6 Oct 2011 6:37 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 6 20:54 2011 Quant Results File: 100611V1.RES

Quant Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
DataAcq Meth : 100611V1

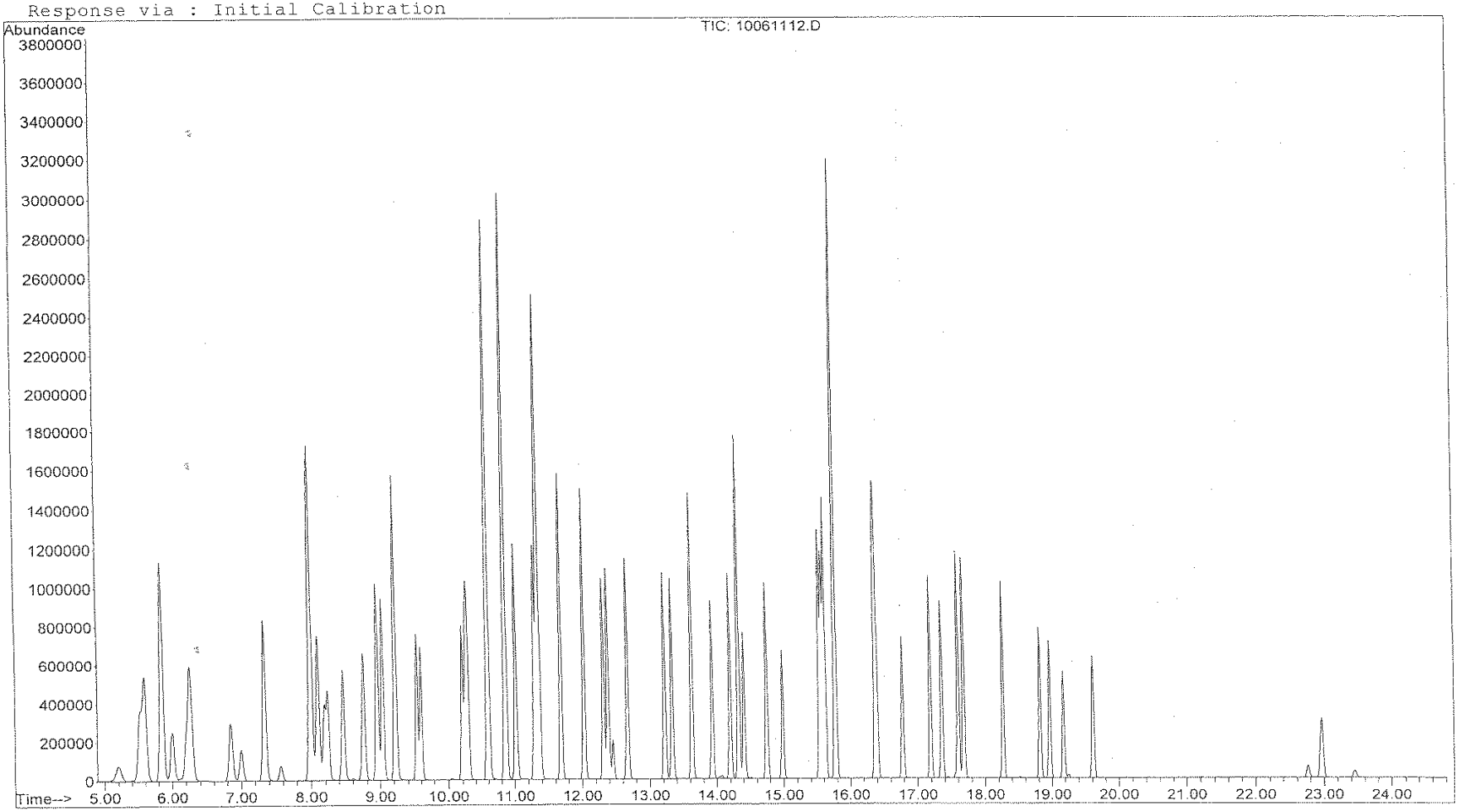
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44) Tetrachloroethene	14.33	166	594281	9.82	ppbv		98
45) 2-Hexanone	14.41	43	702999	10.71	ppbv		91
46) Chlorodibromomethane	14.75	129	627352	10.11	ppbv		98
47) 1,2-Dibromoethane	14.98	107	567662	9.89	ppbv		100
49) Chlorobenzene	15.58	112	730477	10.29	ppbv	#	84
50) Ethylbenzene	15.62	91	1275133	10.42	ppbv		92
51) m,p-Xylene	15.77	91	2211247	21.73	ppbv		90
52) o-Xylene	16.37	91	938257	10.50	ppbv	#	87
53) Styrene	16.40	104	608173	10.00	ppbv		96
54) Bromoform	16.78	173	433013	9.87	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.35	83	624465	10.20	ppbv	#	98
57) 4-Ethyltoluene	17.60	105	957430	9.69	ppbv		95
58) 1,3,5-Trimethylbenzene	17.68	105	786170	9.41	ppbv		96
59) 1,2,4-Trimethylbenzene	18.26	105	707546	9.28	ppbv		96
60) 1,3-Dichlorobenzene	18.82	146	417732	9.15	ppbv		97
61) 1,4-Dichlorobenzene	18.96	146	379950	8.92	ppbv		97
62) Benzyl chloride	19.17	91	546626	10.38	ppbv		96
63) 1,2-Dichlorobenzene	19.61	146	368285	8.86	ppbv		97
64) 1,2,4-Trichlorobenzene	22.76	180	46716	7.37	ppbv		96
65) Hexachlorobutadiene	22.97	225	127095	8.48	ppbv		99
66) Naphthalene	23.46	128	69704	7.26	ppbv		99

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\100611\10061112.D Vial: 12
Acq On : 6 Oct 2011 6:37 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 100611 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 6 20:54 2011 Quant Results File: 100611V1.RES

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration

Calibration Files
2 =09191103.D 4 =09191104.D 5 =09191105.D
6 =09191106.D 7 =09191107.D 8 =09191108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.512	1.314	1.207	1.149	1.093	1.087	1.225	12.16
3)	T	Dichlorodifluoromet	3.326	3.271	3.103	2.852	2.830	2.914	3.092	7.35
4)	T	1,2-Dichloro-1,2,2,	1.847	2.141	2.089	1.980	1.905	2.028	2.025	6.13
5)	T	Chloromethane	1.519	1.460	1.383	1.233	1.174	1.135	1.302	11.55
6)	T	Vinyl chloride	2.075	2.115	1.978	1.791	1.632	1.540	1.810	13.76
7)	T	1,3-Butadiene	1.716	1.658	1.538	1.395	1.250	1.178	1.413	16.24
8)	T	Bromomethane	1.794	1.272	1.232	1.280	1.371	1.269	1.349	14.93
9)	T	Chloroethane	0.711	0.761	0.733	0.684	0.651	0.722	0.710	4.97
10)	T	Trichlorofluorometh	2.763	3.149	3.058	2.905	2.810	2.895	2.933	4.59
11)	T	Ethanol		0.263	0.311	0.290	0.249	0.277	0.281	8.14
12)	T	Freon113	2.106	2.680	2.602	2.464	2.257	2.202	2.328	11.20
13)	T	1,1-Dichloroethene	2.019	2.179	2.096	1.941	1.810	1.837	1.971	6.83
14)	T	Acetone	2.181	2.278	2.153	1.871	1.456	1.561	1.875	17.79
15)	T	Carbon disulfide	3.179	3.309	3.155	2.923	2.803	2.902	3.079	6.53
16)	T	2-Propanol	1.494	1.878	1.820	1.636	1.441	1.537	1.628	10.10
17)	T	Methylene chloride	1.851	1.699	1.600	1.447	1.239	1.271	1.493	15.46
18)	T	tert-Butyl Methyl E	2.811	3.112	2.895	2.524	1.937	2.242	2.561	15.90
19)	T	trans-1,2-Dichloroe	1.913	2.127	2.015	1.848	1.598	1.683	1.844	10.26
20)	T	n-Hexane	2.125	2.362	2.266	2.065	1.807	1.858	2.043	10.96
21)	T	1,1-Dichloroethane	2.205	2.458	2.320	2.065	1.743	1.862	2.096	12.01
22)	T	Vinyl acetate	2.857	3.681	3.400	2.970	2.257	2.512	2.893	17.49
23)	T	cis-1,2-Dichloroeth	1.070	1.220	1.166	1.065	0.928	1.044	1.089	8.68
24)	T	2-Butanone	2.124	2.170	2.061	1.849	1.503	1.700	1.856	14.48
25)	T	Ethyl acetate	2.480	2.821	2.683	2.391	1.983	2.212	2.392	12.34
26)	T	Tetrahydrofuran	1.503	1.568	1.471	1.287	1.035	1.043	1.265	20.28
27)	T	Chloroform	2.518	2.898	2.725	2.462	2.072	2.026	2.363	16.56
28)	T	1,1,1-Trichloroetha	2.039	2.859	2.736	2.487	2.100	1.961	2.274	18.59
29)	T	Cyclohexane	2.128	2.667	2.494	2.225	1.858	1.697	2.080	20.40
30)	T	Carbon tetrachlorid	1.854	2.379	2.285	2.111	1.846	1.974	2.045	10.68
31)	T	Benzene	2.995	3.213	3.012	2.686	2.150	2.452	2.739	13.35
32)	T	1,2-Dichloroethane	1.504	1.700	1.598	1.411	1.127	1.158	1.367	18.23
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.797	1.120	1.067	0.976	0.833	0.790	0.885	20.08
35)	T	Trichloroethene	0.367	0.500	0.493	0.468	0.426	0.469	0.447	11.03
36)	T	1,2-Dichloropropane	0.320	0.396	0.381	0.350	0.297	0.349	0.346	9.94
37)	T	1,4-Dioxane	0.096	0.110	0.126	0.119	0.105	0.115	0.112	8.84
38)	T	Bromodichloromethan	0.527	0.719	0.709	0.662	0.594	0.678	0.643	10.71
39)	T	cis-1,3-Dichloropro	0.440	0.572	0.549	0.513	0.454	0.530	0.512	9.45
40)	T	4-Methyl-2-pentanon	0.175	0.272	0.267	0.250	0.226	0.259	0.243	13.80
41)	T	Toluene	0.829	0.979	0.950	0.889	0.794	0.933	0.894	7.40
42)	T	trans-1,3-Dichlorop	0.367	0.499	0.487	0.452	0.412	0.473	0.452	10.39
43)	T	1,1,2-Trichloroetha	0.267	0.324	0.317	0.301	0.278	0.329	0.306	8.12
44)	T	Tetrachloroethene	0.440	0.533	0.537	0.506	0.490	0.511	0.491	9.02
45)	T	2-Hexanone	0.360	0.568	0.578	0.546	0.503	0.544	0.515	14.35
46)	T	Chlorodibromomethan	0.385	0.522	0.516	0.501	0.476	0.549	0.491	10.66
47)	T	1,2-Dibromoethane	0.406	0.485	0.469	0.446	0.417	0.476	0.451	6.70
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.876	0.935	0.908	0.866	0.805	0.921	0.884	4.92

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration

Calibration Files
2 =09191103.D 4 =09191104.D 5 =09191105.D
6 =09191106.D 7 =09191107.D 8 =09191108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.503	1.570	1.551	1.488	1.391	1.560	1.488	5.78
51)	T	m,p-Xylene	1.215	1.413	1.410	1.346	1.229	1.148	1.229	16.21
52)	T	o-Xylene	1.137	1.149	1.158	1.122	1.062	1.186	1.114	6.09
53)	T	Styrene	0.836	0.805	0.789	0.761	0.723	0.812	0.778	5.68
54)	T	Bromoform	0.526	0.620	0.615	0.597	0.574	0.619	0.583	7.05
55)	S	4-Bromofluorobenzen	0.714	0.631	0.613	0.608	0.597	0.558	0.609	9.19
56)	T	1,1,2,2-Tetrachloro	1.006	0.867	0.852	0.798	0.758	0.775	0.824	11.79
57)	T	4-Ethyltoluene	1.854	1.333	1.253	1.192	1.131	1.232	1.305	19.28
58)	T	1,3,5-Trimethylbenz	1.592	1.122	1.064	0.989	0.962	1.053	1.106	20.05
59)	T	1,2,4-Trimethylbenz	1.619	1.057	0.996	0.928	0.903	0.940	1.050	24.50
60)	T	1,3-Dichlorobenzene	0.996	0.704	0.685	0.626	0.597	0.574	0.678	22.10
61)	T	1,4-Dichlorobenzene	0.903	0.662	0.649	0.597	0.568	0.546	0.638	19.84
62)	T	Benzyl chloride	0.769	0.907	0.917	0.843	0.805	0.764	0.821	8.53
63)	T	1,2-Dichlorobenzene	0.997	0.646	0.647	0.575	0.560	0.513	0.636	26.59
64)	T	1,2,4-Trichlorobenz	0.270	0.147	0.156	0.143	0.138	0.141	0.163	29.03
65)	T	Hexachlorobutadiene	0.774	0.362	0.369	0.340	0.336	0.341	0.410	39.32
66)		Naphthalene	0.432	0.251	0.265	0.241	0.234	0.230	0.269	26.98

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\091911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Mon Sep 19 19:49:31 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#			Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I		Bromochloromethane	130	10.58	1.000	A	2	A	B
2		T	Propylene	41	5.52	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	0.568	A	3	A	B
6		T	Vinyl chloride	62	6.22	0.588	A	2	A	B
7		T	1,3-Butadiene	39	6.28	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	7.33	0.693	A	3	A	B
11		T	Ethanol	45	7.57	0.715	A	2	A	B
12		T	Freon113	101	7.99	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.774	A	2	A	B
15		T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16		T	2-Propanol	45	8.25	0.779	A	2	A	B
17		T	Methylene chloride	49	8.75	0.827	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	0.846	A	2	A	B
19		T	trans-1,2-Dichloroethene	61	9.04	0.854	A	2	A	B
20		T	n-Hexane	57	9.22	0.872	A	3	A	B
21		T	1,1-Dichloroethane	63	9.60	0.907	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.901	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	0.964	A	3	A	B
26		T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27		T	Chloroform	83	10.61	1.002	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.027	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31		T	Benzene	78	11.30	1.068	A	3	A	B
32		T	1,2-Dichloroethane	62	11.38	1.075	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	12.47	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	13.34	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.165	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	14.21	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	18.82	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	23.46	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

091911V1.M Thu Sep 29 11:31:37 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration

Calibration Files
2 =09291103.D 4 =09291104.D 5 =09291105.D
6 =09291106.D 7 =09291107.D 8 =09291108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	ISTD							
2)	T	Propylene	1.473	1.577	1.398	1.274	1.206	1.190	1.347	10.59
3)	T	Dichlorodifluoromet	3.848	4.058	3.674	3.394	3.204	3.281	3.585	8.65
4)	T	1,2-Dichloro-1,2,2,	2.082	2.641	2.432	2.282	2.207	2.263	2.317	7.67
5)	T	Chloromethane	1.709	1.810	1.582	1.419	1.268	1.182	1.453	17.38
6)	T	Vinyl chloride	1.426	1.627	1.420	1.269	1.083	0.974	1.253	20.17
7)	T	1,3-Butadiene	1.415	1.770	1.546	1.362	1.114	0.856	1.267	28.16
8)	T	Bromomethane	1.224	1.400	1.283	1.168	1.095	1.120	1.224	8.70
9)	T	Chloroethane	0.797	0.877	0.821	0.739	0.673	0.675	0.763	9.86
10)	T	Trichlorofluorometh	3.156	3.540	3.482	3.165	2.902	2.931	3.171	8.00
11)	T	Ethanol		0.323	0.414	0.369	0.332	0.334	0.354	9.51
12)	T	Freon113	2.291	2.593	2.922	2.615	2.355	2.249	2.437	12.02
13)	T	1,1-Dichloroethene	2.238	2.274	2.320	2.063	1.865	1.858	2.076	9.68
14)	T	Acetone	2.626	1.926	2.522	2.148	1.821	1.785	2.093	16.77
15)	T	Carbon disulfide	3.494	3.780	3.570	3.214	2.943	2.970	3.321	9.37
16)	T	2-Propanol	1.820	2.092	2.244	1.993	1.783	1.771	1.935	9.34
17)	T	Methylene chloride	2.020	1.613	1.770	1.566	1.392	1.372	1.594	14.76
18)	T	tert-Butyl Methyl E	3.240	2.425	3.429	2.927	2.501	2.545	2.818	13.88
19)	T	trans-1,2-Dichloroe	2.114	1.965	2.253	2.013	1.825	1.821	1.972	8.57
20)	T	n-Hexane	2.325	2.174	2.503	2.246	2.000	1.977	2.161	10.00
21)	T	1,1-Dichloroethane	2.296	2.050	2.532	2.206	1.953	1.970	2.152	9.69
22)	T	Vinyl acetate	3.565	2.916	4.118	3.480	2.973	2.886	3.263	14.52
23)	T	cis-1,2-Dichloroeth	1.154	1.136	1.310	1.193	1.094	1.139	1.175	5.91
24)	T	2-Butanone	2.604	2.115	2.628	2.386	2.070	2.009	2.252	12.60
25)	T	Ethyl acetate	3.174	2.644	3.414	3.025	2.627	2.541	2.851	12.35
26)	T	Tetrahydrofuran	1.743	1.384	1.702	1.460	1.225	1.137	1.385	19.47
27)	T	Chloroform	2.682	2.690	3.003	2.668	2.343	2.161	2.502	14.34
28)	T	1,1,1-Trichloroetha	2.268	2.620	3.014	2.694	2.356	2.094	2.413	16.30
29)	T	Cyclohexane	2.289	2.425	2.684	2.353	2.017	1.787	2.160	18.07
30)	T	Carbon tetrachlorid	2.056	2.217	2.602	2.361	2.162	2.115	2.213	9.49
31)	T	Benzene	3.198	2.615	3.535	3.040	2.691	2.716	2.950	11.20
32)	T	1,2-Dichloroethane	1.654	1.420	1.904	1.627	1.401	1.285	1.496	16.57
33)	I	1,4-Difluorobenzene	ISTD							
34)	T	Heptane	0.870	1.106	1.168	1.058	0.926	0.822	0.944	19.04
35)	T	Trichloroethene	0.398	0.505	0.548	0.517	0.494	0.495	0.484	10.68
36)	T	1,2-Dichloropropane	0.352	0.373	0.472	0.425	0.384	0.391	0.395	10.44
37)	T	1,4-Dioxane	0.114	0.125	0.153	0.140	0.127	0.126	0.130	9.56
38)	T	Bromodichloromethan	0.588	0.727	0.875	0.798	0.740	0.738	0.731	12.71
39)	T	cis-1,3-Dichloropro	0.509	0.573	0.693	0.629	0.587	0.593	0.595	9.46
40)	T	4-Methyl-2-pentanon	0.217	0.289	0.326	0.297	0.272	0.276	0.278	11.92
41)	T	Toluene	0.938	1.001	1.190	1.086	1.001	1.013	1.026	8.45
42)	T	trans-1,3-Dichlorop	0.440	0.514	0.599	0.544	0.517	0.523	0.523	8.99
43)	T	1,1,2-Trichloroetha	0.306	0.342	0.398	0.366	0.350	0.358	0.353	7.84
44)	T	Tetrachloroethene	0.478	0.584	0.615	0.576	0.558	0.525	0.540	11.30
45)	T	2-Hexanone	0.503	0.612	0.680	0.618	0.572	0.554	0.581	10.44
46)	T	Chlorodibromomethan	0.423	0.547	0.640	0.596	0.580	0.578	0.554	12.61
47)	T	1,2-Dibromoethane	0.458	0.509	0.580	0.531	0.518	0.515	0.514	7.30
48)	I	Chlorobenzene-d5	ISTD							
49)	T	Chlorobenzene	0.998	0.955	1.173	1.077	1.015	1.050	1.040	6.78

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

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration

Calibration Files
2 =09291103.D 4 =09291104.D 5 =09291105.D
6 =09291106.D 7 =09291107.D 8 =09291108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.745	1.645	2.049	1.891	1.744	1.781	1.774	8.96
51)	T	m,p-Xylene	1.395	1.449	1.815	1.650	1.448	1.291	1.433	18.43
52)	T	o-Xylene	1.286	1.208	1.498	1.405	1.314	1.317	1.310	9.05
53)	T	Styrene	0.942	0.831	0.995	0.940	0.895	0.894	0.902	7.03
54)	T	Bromoform	0.610	0.641	0.763	0.718	0.696	0.681	0.673	8.73
55)	S	4-Bromofluorobenzen	0.668	0.609	0.570	0.561	0.567	0.526	0.571	9.58
56)	T	1,1,2,2-Tetrachloro	1.111	0.910	1.027	0.935	0.879	0.853	0.930	11.52
57)	T	4-Ethyltoluene	2.048	1.396	1.593	1.490	1.440	1.350	1.514	16.84
58)	T	1,3,5-Trimethylbenz	1.775	1.180	1.362	1.260	1.241	1.163	1.296	17.54
59)	T	1,2,4-Trimethylbenz	1.767	1.105	1.241	1.147	1.124	1.032	1.205	21.47
60)	T	1,3-Dichlorobenzene	1.071	0.695	0.752	0.664	0.641	0.592	0.715	23.35
61)	T	1,4-Dichlorobenzene	0.983	0.652	0.703	0.623	0.603	0.559	0.669	22.07
62)	T	Benzyl chloride	0.912	0.884	0.997	0.886	0.832	0.786	0.870	8.42
63)	T	1,2-Dichlorobenzene	1.039	0.636	0.678	0.597	0.559	0.511	0.650	27.92
64)	T	1,2,4-Trichlorobenz		0.106	0.100	0.091	0.090	0.082	0.094	8.87
65)	T	Hexachlorobutadiene		0.274	0.232	0.219	0.212	0.191	0.224	12.46
66)		Naphthalene		0.168	0.147	0.140	0.136	0.121	0.141	11.08

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\092911V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Sep 30 07:20:59 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#			Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I		Bromochloromethane	130	10.58	1.000	A	2	A	B
2		T	Propylene	41	5.52	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	0.568	A	3	A	B
6		T	Vinyl chloride	62	6.22	0.588	A	2	A	B
7		T	1,3-Butadiene	39	6.28	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	7.33	0.693	A	3	A	B
11		T	Ethanol	45	7.57	0.715	A	2	A	B
12		T	Freon113	101	7.99	0.755	A	2	A	B
13		T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14		T	Acetone	43	8.19	0.774	A	2	A	B
15		T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16		T	2-Propanol	45	8.25	0.779	A	2	A	B
17		T	Methylene chloride	49	8.75	0.827	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.96	0.846	A	2	A	B
19		T	trans-1,2-Dichloroethene	61	9.04	0.854	A	2	A	B
20		T	n-Hexane	57	9.22	0.872	A	3	A	B
21		T	1,1-Dichloroethane	63	9.60	0.907	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.901	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	0.964	A	3	A	B
26		T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27		T	Chloroform	83	10.61	1.002	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29		T	Cyclohexane	56	10.87	1.027	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31		T	Benzene	78	11.30	1.068	A	3	A	B
32		T	1,2-Dichloroethane	62	11.38	1.075	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	12.47	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	13.34	1.140	A	3	A	B
41		T	Toluene	91	13.63	1.165	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	14.21	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	18.82	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

092911V1.M Thu Oct 20 10:35:48 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
Response via : Initial Calibration

Calibration Files
2 =10041105.D 4 =10041106.D 5 =10041107.D
6 =10041109.D 7 =10041110.D 8 =10041111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.385	1.475	1.401	1.280	1.196	1.153	1.300	9.38
3)	T	Dichlorodifluoromet	3.425	3.651	3.492	3.252	3.126	3.138	3.361	5.82
4)	T	1,2-Dichloro-1,2,2,	1.847	2.397	2.317	2.202	2.185	2.255	2.206	7.88
5)	T	Chloromethane	1.741	1.799	1.683	1.510	1.377	1.259	1.509	15.96
6)	T	Vinyl chloride	1.603	1.958	1.692	1.431	1.190	1.050	1.416	25.37
7)	T	1,3-Butadiene	1.615	1.728	1.645	1.453	1.198	0.897	1.336	27.71
8)	T	Bromomethane	1.115	1.316	1.262	1.173	1.115	1.117	1.193	7.05
9)	T	Chloroethane	0.706	0.846	0.816	0.748	0.706	0.687	0.750	8.01
10)	T	Trichlorofluorometh	2.742	3.321	3.262	3.094	3.040	3.070	3.085	6.02
11)	T	Ethanol		0.377	0.366	0.335	0.315	0.296	0.332	10.24
12)	T	Freon113	2.139	2.626	2.675	2.616	2.568	2.355	2.437	10.12
13)	T	1,1-Dichloroethene	2.010	2.302	2.228	2.070	1.979	1.913	2.063	7.20
14)	T	Acetone	2.520	1.988	1.862	1.712	1.597	1.444	1.803	20.54
15)	T	Carbon disulfide	3.243	3.708	3.541	3.254	3.095	3.034	3.309	7.22
16)	T	2-Propanol	1.647	2.011	1.912	1.722	1.612	1.531	1.713	10.70
17)	T	Methylene chloride	1.924	1.653	1.609	1.488	1.393	1.289	1.527	14.46
18)	T	tert-Butyl Methyl E	2.968	2.478	2.325	2.178	2.123	1.992	2.327	13.80
19)	T	trans-1,2-Dichloroe	1.935	1.947	1.911	1.822	1.757	1.688	1.825	5.91
20)	T	n-Hexane	2.180	2.158	2.138	2.003	1.958	1.858	2.013	7.52
21)	T	1,1-Dichloroethane	2.247	1.974	1.918	1.792	1.746	1.641	1.874	10.53
22)	T	Vinyl acetate	2.653	3.087	2.897	2.707	2.549	2.363	2.680	9.19
23)	T	cis-1,2-Dichloroeth	1.084	1.091	1.059	1.004	0.994	1.002	1.049	4.61
24)	T	2-Butanone	2.409	2.118	1.971	1.873	1.700	1.737	1.928	13.69
25)	T	Ethyl acetate	2.856	2.822	2.472	2.421	2.218	2.103	2.454	11.84
26)	T	Tetrahydrofuran	1.616	1.426	1.310	1.206	1.109	0.992	1.227	19.77
27)	T	Chloroform	2.411	2.525	2.462	2.328	2.227	2.041	2.266	10.52
28)	T	1,1,1-Trichloroetha	2.010	2.473	2.446	2.377	2.287	2.032	2.202	11.86
29)	T	Cyclohexane	2.151	2.375	2.326	2.198	2.029	1.754	2.049	15.36
30)	T	Carbon tetrachlorid	1.890	2.064	2.003	1.942	1.958	1.936	1.952	3.35
31)	T	Benzene	3.079	2.682	2.524	2.404	2.334	2.243	2.543	10.88
32)	T	1,2-Dichloroethane	1.483	1.429	1.370	1.309	1.253	1.162	1.300	10.76
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.797	0.995	0.997	0.942	0.935	0.875	0.891	12.42
35)	T	Trichloroethene	0.364	0.446	0.453	0.439	0.469	0.508	0.447	9.67
36)	T	1,2-Dichloropropane	0.329	0.356	0.350	0.336	0.344	0.362	0.348	3.61
37)	T	1,4-Dioxane	0.128	0.125	0.124	0.115	0.113	0.114	0.119	5.75
38)	T	Bromodichloromethan	0.530	0.646	0.656	0.629	0.661	0.711	0.643	8.68
39)	T	cis-1,3-Dichloropro	0.452	0.527	0.522	0.495	0.512	0.551	0.518	7.18
40)	T	4-Methyl-2-pentanon	0.196	0.254	0.251	0.235	0.238	0.250	0.239	8.51
41)	T	Toluene	0.879	0.920	0.901	0.866	0.898	0.966	0.912	4.04
42)	T	trans-1,3-Dichlorop	0.370	0.465	0.461	0.432	0.445	0.479	0.450	9.08
43)	T	1,1,2-Trichloroetha	0.277	0.309	0.303	0.292	0.303	0.334	0.309	7.34
44)	T	Tetrachloroethene	0.436	0.497	0.501	0.486	0.528	0.547	0.494	7.59
45)	T	2-Hexanone	0.454	0.541	0.528	0.486	0.485	0.497	0.495	6.05
46)	T	Chlorodibromomethan	0.391	0.479	0.476	0.465	0.499	0.558	0.484	10.73
47)	T	1,2-Dibromoethane	0.408	0.447	0.441	0.418	0.434	0.479	0.444	6.19
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.925	0.914	0.902	0.862	0.879	0.954	0.917	4.55

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
Response via : Initial Calibration

Calibration Files
2 =10041105.D 4 =10041106.D 5 =10041107.D
6 =10041109.D 7 =10041110.D 8 =10041111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.609	1.569	1.552	1.504	1.519	1.633	1.564	2.92
51)	T	m,p-Xylene	1.282	1.370	1.384	1.356	1.361	1.308	1.297	9.95
52)	T	o-Xylene	1.217	1.142	1.136	1.104	1.134	1.234	1.158	4.15
53)	T	Styrene	0.845	0.786	0.772	0.740	0.759	0.827	0.790	4.72
54)	T	Bromoform	0.558	0.603	0.590	0.563	0.584	0.634	0.589	4.36
55)	S	4-Bromofluorobenzen	0.647	0.586	0.565	0.544	0.540	0.524	0.559	8.30
56)	T	1,1,2,2-Tetrachloro	1.066	0.903	0.861	0.780	0.770	0.782	0.846	13.13
57)	T	4-Ethyltoluene	1.935	1.320	1.253	1.170	1.168	1.220	1.328	20.52
58)	T	1,3,5-Trimethylbenz	1.659	1.125	1.068	0.997	0.996	1.048	1.134	20.75
59)	T	1,2,4-Trimethylbenz	1.630	1.061	0.999	0.918	0.914	0.938	1.060	24.19
60)	T	1,3-Dichlorobenzene	0.955	0.662	0.632	0.555	0.548	0.542	0.634	23.60
61)	T	1,4-Dichlorobenzene	0.847	0.617	0.581	0.517	0.511	0.505	0.584	21.20
62)	T	Benzyl chloride	0.604	0.834	0.797	0.715	0.702	0.700	0.720	10.49
63)	T	1,2-Dichlorobenzene	0.931	0.619	0.579	0.506	0.491	0.473	0.580	28.37
64)	T	1,2,4-Trichlorobenz		0.097	0.084	0.074	0.068	0.069	0.077	14.47
65)	T	Hexachlorobutadiene		0.230	0.206	0.176	0.161	0.157	0.181	17.03
66)		Naphthalene		0.152	0.135	0.115	0.105	0.105	0.120	16.19

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\100411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 05 07:40:04 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.58	1.000	A	2	A	B
2	T	Propylene	41	5.52	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	0.568	A	3	A	B
6	T	Vinyl chloride	62	6.22	0.588	A	2	A	B
7	T	1,3-Butadiene	39	6.28	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	7.33	0.693	A	3	A	B
11	T	Ethanol	45	7.57	0.715	A	2	A	B
12	T	Freon113	101	7.99	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.765	A	2	A	B
14	T	Acetone	43	8.19	0.774	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.25	0.779	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.96	0.846	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	0.854	A	2	A	B
20	T	n-Hexane	57	9.22	0.872	A	3	A	B
21	T	1,1-Dichloroethane	63	9.60	0.907	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.901	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	0.964	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27	T	Chloroform	83	10.61	1.002	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.87	1.027	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.068	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.075	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	12.47	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	13.34	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.165	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	14.21	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	18.82	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

100411V1.M Mon Oct 10 12:08:48 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration

Calibration Files
2 =10061104.D 4 =10061105.D 5 =10061106.D
6 =10061107.D 7 =10061108.D 8 =10061109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	ISTD							
2)	T	Propylene	1.584	1.474	1.359	1.243	1.178	1.115	1.304	13.35
3)	T	Dichlorodifluoromet	3.811	3.575	3.330	3.124	3.003	2.977	3.309	9.25
4)	T	1,2-Dichloro-1,2,2,	2.126	2.342	2.194	2.088	2.078	2.145	2.171	4.24
5)	T	Chloromethane	1.939	1.850	1.654	1.493	1.361	1.235	1.531	19.25
6)	T	Vinyl chloride	1.839	1.676	1.543	1.337	1.192	1.064	1.379	22.98
7)	T	1,3-Butadiene	1.822	1.641	1.525	1.292	1.032	0.872	1.286	30.47
8)	T	Bromomethane	1.247	1.298	1.217	1.122	1.080	1.056	1.173	7.63
9)	T	Chloroethane	0.815	0.852	0.791	0.728	0.682	0.648	0.744	10.22
10)	T	Trichlorofluorometh	3.006	3.279	3.105	2.958	2.843	2.890	3.006	4.87
11)	T	Ethanol		0.478	0.425	0.385	0.331	0.311	0.374	17.98
12)	T	Freon113	2.339	2.849	2.728	2.645	2.443	2.324	2.482	11.12
13)	T	1,1-Dichloroethene	2.225	2.383	2.185	2.035	1.860	1.808	2.049	10.84
14)	T	Acetone	2.760	2.742	2.431	2.182	1.807	1.639	2.170	22.66
15)	T	Carbon disulfide	3.565	3.697	3.408	3.171	2.955	2.867	3.246	9.75
16)	T	2-Propanol	1.839	2.417	2.126	1.939	1.717	1.600	1.896	15.50
17)	T	Methylene chloride	2.104	1.922	1.752	1.609	1.407	1.321	1.636	18.59
18)	T	tert-Butyl Methyl E	3.192	3.565	3.195	2.916	2.449	2.355	2.877	16.19
19)	T	trans-1,2-Dichloroe	2.118	2.320	2.151	2.007	1.777	1.743	1.981	11.57
20)	T	n-Hexane	2.355	2.619	2.420	2.245	2.003	1.937	2.203	12.90
21)	T	1,1-Dichloroethane	2.372	2.682	2.449	2.249	1.935	1.865	2.213	13.98
22)	T	Vinyl acetate	2.733	4.587	4.046	3.652	2.998	2.741	3.355	22.30
23)	T	cis-1,2-Dichloroeth	1.193	1.355	1.252	1.180	1.063	1.087	1.183	8.36
24)	T	2-Butanone	2.560	2.945	2.613	2.288	2.064	1.846	2.302	18.53
25)	T	Ethyl acetate	3.138	3.936	3.430	3.036	2.615	2.324	2.992	19.16
26)	T	Tetrahydrofuran	1.801	1.943	1.719	1.553	1.299	1.147	1.500	23.01
27)	T	Chloroform	2.605	3.198	2.949	2.766	2.451	2.214	2.595	16.20
28)	T	1,1,1-Trichloroetha	2.198	3.052	2.895	2.758	2.466	2.189	2.490	17.25
29)	T	Cyclohexane	2.390	2.898	2.692	2.495	2.157	1.866	2.294	20.38
30)	T	Carbon tetrachlorid	1.984	2.466	2.322	2.223	2.082	2.067	2.155	8.86
31)	T	Benzene	3.394	3.755	3.384	3.142	2.677	2.572	3.091	14.50
32)	T	1,2-Dichloroethane	1.653	2.004	1.811	1.691	1.447	1.306	1.585	18.19
33)	I	1,4-Difluorobenzene	ISTD							
34)	T	Heptane	0.882	1.234	1.179	1.120	1.036	0.916	1.015	17.61
35)	T	Trichloroethene	0.398	0.529	0.515	0.513	0.504	0.520	0.493	9.33
36)	T	1,2-Dichloropropane	0.356	0.502	0.464	0.449	0.402	0.402	0.425	11.64
37)	T	1,4-Dioxane	0.147	0.159	0.148	0.141	0.128	0.123	0.138	10.20
38)	T	Bromodichloromethan	0.583	0.861	0.815	0.800	0.750	0.762	0.756	11.81
39)	T	cis-1,3-Dichloropro	0.489	0.704	0.660	0.634	0.592	0.593	0.612	11.00
40)	T	4-Methyl-2-pentanon	0.224	0.331	0.308	0.293	0.270	0.270	0.281	12.11
41)	T	Toluene	0.971	1.241	1.162	1.123	1.046	1.054	1.089	8.40
42)	T	trans-1,3-Dichlorop	0.404	0.602	0.567	0.546	0.514	0.508	0.526	11.86
43)	T	1,1,2-Trichloroetha	0.314	0.402	0.379	0.369	0.351	0.360	0.364	7.49
44)	T	Tetrachloroethene	0.490	0.584	0.571	0.560	0.577	0.560	0.546	7.77
45)	T	2-Hexanone	0.524	0.723	0.653	0.622	0.564	0.537	0.592	12.85
46)	T	Chlorodibromomethan	0.417	0.611	0.579	0.581	0.572	0.602	0.560	11.72
47)	T	1,2-Dibromoethane	0.445	0.573	0.539	0.533	0.507	0.511	0.518	7.53
48)	I	Chlorobenzene-d5	ISTD							
49)	T	Chlorobenzene	0.996	1.199	1.117	1.072	1.021	1.041	1.075	6.29

(#) = Out of Range ### Number of calibration levels exceeded format ###
100611V1.M Mon Oct 10 13:27:20 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration

Calibration Files
2 =10061104.D 4 =10061105.D 5 =10061106.D
6 =10061107.D 7 =10061108.D 8 =10061109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.730	2.101	1.960	1.885	1.769	1.811	1.853	7.55
51)	T	m,p-Xylene	1.353	1.853	1.762	1.715	1.578	1.418	1.541	17.11
52)	T	o-Xylene	1.257	1.496	1.413	1.368	1.313	1.378	1.353	6.57
53)	T	Styrene	0.906	1.008	0.939	0.913	0.882	0.924	0.921	4.78
54)	T	Bromoform	0.580	0.718	0.688	0.678	0.661	0.681	0.664	6.59
55)	S	4-Bromofluorobenzen	0.644	0.543	0.540	0.546	0.531	0.518	0.546	8.33
56)	T	1,1,2,2-Tetrachloro	1.134	1.011	0.948	0.903	0.850	0.830	0.927	12.45
57)	T	4-Ethyltoluene	2.069	1.540	1.435	1.395	1.316	1.377	1.496	17.62
58)	T	1,3,5-Trimethylbenz	1.764	1.284	1.208	1.163	1.116	1.182	1.265	17.93
59)	T	1,2,4-Trimethylbenz	1.753	1.153	1.072	1.049	0.994	1.036	1.155	23.23
60)	T	1,3-Dichlorobenzene	1.054	0.733	0.677	0.651	0.589	0.557	0.691	24.80
61)	T	1,4-Dichlorobenzene	0.946	0.691	0.637	0.622	0.553	0.520	0.645	22.54
62)	T	Benzyl chloride	0.614	0.950	0.901	0.862	0.781	0.733	0.798	14.37
63)	T	1,2-Dichlorobenzene	1.030	0.660	0.610	0.584	0.538	0.485	0.629	29.80
64)	T	1,2,4-Trichlorobenz		0.114	0.103	0.103	0.092	0.077	0.096	14.22
65)	T	Hexachlorobutadiene		0.283	0.248	0.245	0.212	0.180	0.227	17.04
66)		Naphthalene		0.172	0.157	0.157	0.140	0.117	0.145	14.13

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\100611V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 06 20:53:18 2011
Response via : Initial Calibration
Total Cpnds : 66

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	Bromochloromethane	130	10.58	1.000	A	2	A	B
2	T	Propylene	41	5.51	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.58	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.592	A	2	A	B
8	T	Bromomethane	94	6.84	0.647	A	3	A	B
9	T	Chloroethane	64	7.00	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.693	A	3	A	B
11	T	Ethanol	45	7.55	0.714	A	2	A	B
12	T	Freon113	101	7.99	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.23	0.778	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.27	0.971	A	3	A	B
24	T	2-Butanone	43	10.24	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27	T	Chloroform	83	10.60	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.29	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	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	12.38	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.66	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.22	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.141	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	1.192	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	15.62	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	16.39	1.055	A	3	A	B
54	T	Bromoform	173	16.78	1.080	A	3	A	B
55	S	4-Bromofluorobenzene	95	17.19	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	17.68	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	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.96	1.221	A	3	A	B
62	T	Benzyl chloride	91	19.17	1.234	A	2	A	B
63	T	1,2-Dichlorobenzene	146	19.61	1.262	A	3	A	B
64	T	1,2,4-Trichlorobenzene	180	22.76	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.96	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

100611V1.M Mon Oct 10 13:27:22 2011

RTI Laboratories

Run ID: VOA9_110830A **Run No.:** 42540

Analytical Run Date: 8/30/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42263 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 083011 VOA9	BFB_TUNE	TUNE	R42540	8/30/2011 9:13:00 AM	Charles O`Bryan		
CCV 083011 VOA9	MA_APH	CCV	R42540	8/30/2011 9:57:00 AM	Charles O`Bryan		
RLVS1 083011 VOA	MA_APH	RLVS	R42540	8/30/2011 11:25:00 AM	Charles O`Bryan		
MBLK 083011 VOA9	MA_APH	MBLK	R42540	8/30/2011 2:06:00 PM	Charles O`Bryan		
1108899-037A	MA_APH	SAMP	R42540	8/30/2011 2:48:00 PM	Charles O`Bryan		
1108899-037ADUP	MA_APH	DUP	R42540	8/30/2011 3:30:00 PM	Charles O`Bryan		
1108688-017A	MA_APH	SAMP	R42540	8/30/2011 4:16:00 PM	Charles O`Bryan		
1108688-018A	MA_APH	SAMP	R42540	8/30/2011 5:01:00 PM	Charles O`Bryan		
1108688-019A	MA_APH	SAMP	R42540	8/30/2011 5:46:00 PM	Charles O`Bryan		
1108688-006A	MA_APH	SAMP	R42540	8/30/2011 7:11:00 PM	Charles O`Bryan		
1108688-007A	MA_APH	SAMP	R42540	8/30/2011 7:54:00 PM	Charles O`Bryan		
1108688-008A	MA_APH	SAMP	R42540	8/30/2011 8:36:00 PM	Charles O`Bryan		
1108688-009A	MA_APH	SAMP	R42540	8/30/2011 9:21:00 PM	Charles O`Bryan		
1108899-016A	MA_APH	SAMP	R42540	8/30/2011 11:33:00 PM	Charles O`Bryan		
1108899-038A	MA_APH	SAMP	R42540	8/31/2011 12:18:00 AM	Charles O`Bryan		
RLVS2 083011 VOA	MA_APH	RLVS	R42540	8/31/2011 1:01:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42540

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
824397	BFB 083011 VOA9	BFB_TUNE	TUNE	\I\DATA\083011	8/30/2011 9:13:0	1	R42540		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		94.5	94.5		0	0	0	0	0	0	0%	50	120	0%	
175	M		5.1	5.1		0	0	0	0	0	0	0%	4	9	0%	
176	M		98.2	98.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		19.3	19.3		0	0	0	0	0	0	0%	8	40	0%	
75	M		39.5	39.5		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
824398	CCV 083011 VOA9	MA_APH	CCV	\I\DATA\083011	8/30/2011 9:57:0	1	R42540		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	233.88	233.88		222	0	0	0	0	0	105%	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	206.76	206.76		185	0	0	0	0	0	112%	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	185.87	185.87		221	0	0	0	0	0	84%	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	85.87	85.87		89.5	0	0	0	0	0	96%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\083011\08301102.D
Acq On : 30 Aug 2011 9:57 am
Sample : CCV 083011 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Aug 31 8:51 2011

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

Quant Results File: 081611V9.RES

Quant Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration
DataAcq Meth : 081611V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	819586	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	535426	85.87	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 95.94%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	4346520	48.79	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2417403	34.82	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2757931	36.40	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	3152890	45.04	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2559422	35.07	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2197028	30.04	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	17431194m	233.88	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2527242	32.10	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	2162723	28.61	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	2090372	31.58	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2080726	32.11	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	1676355	29.61	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1168883	26.21	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	11706301m	185.87	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	215670	38.20	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	260483	43.74	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	356062	41.81	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	75179	43.36	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	240440	37.53	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	206204	45.59	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1354038m	206.76	ug/m3	

(#) = qualifier out of range (m) = manual integration
08301102.D 081611V9.M Thu Oct 20 10:52:48 2011

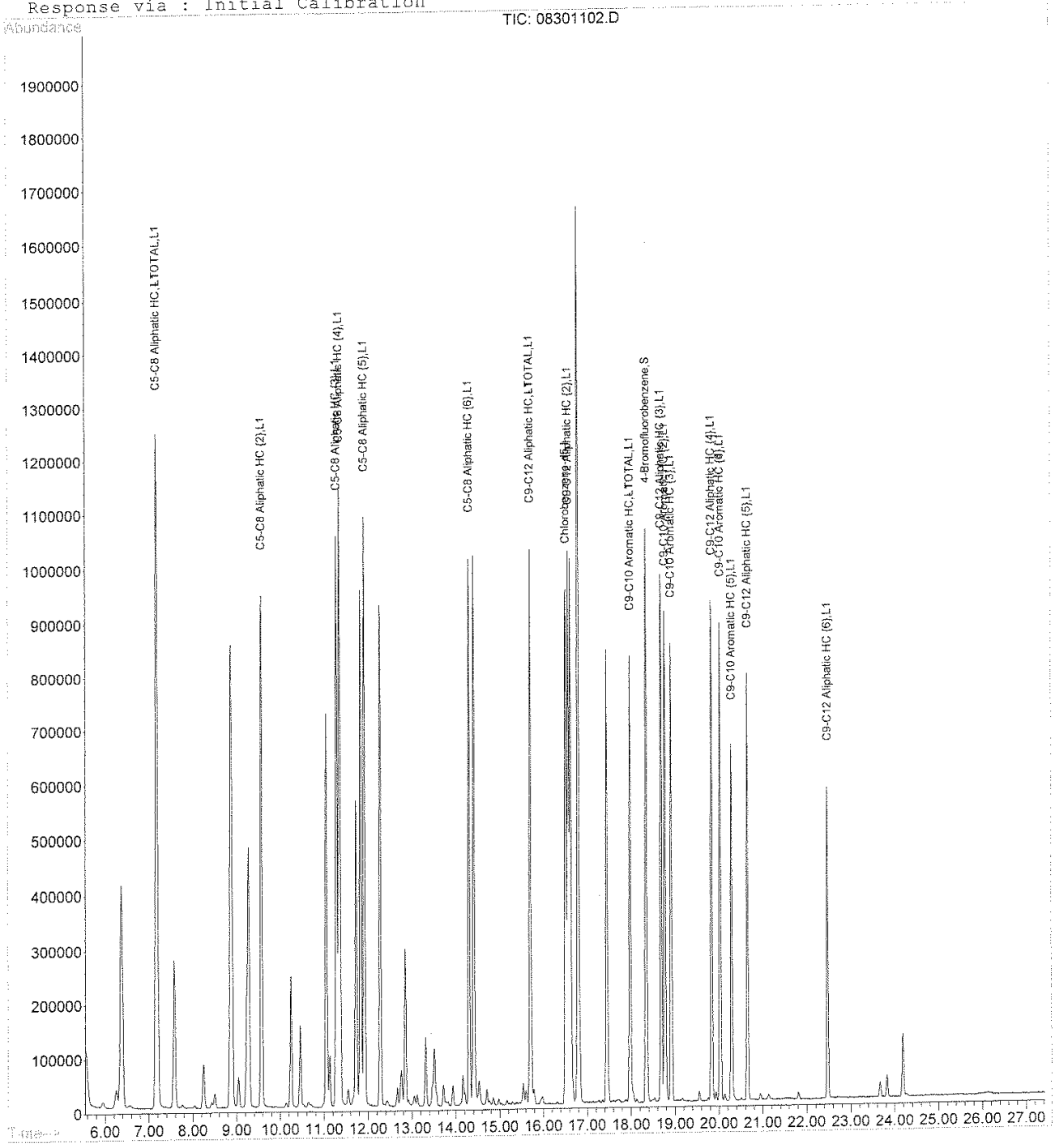
Quantitation Report

Data File : C:\HPCHEM\1\DATA\083011\08301102.D
Acq On : 30 Aug 2011 9:57 am
Sample : CCV 083011 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Aug 31 8:51 2011

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

Quant Results File: 081611V9.RES

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110831A **Run No.:** 42572

Analytical Run Date: 8/31/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42263 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 083111 VOA9	BFB_TUNE	TUNE	R42572	8/31/2011 9:06:00 AM	Charles O`Bryan		
CCV 083111 VOA9	MA_APH	CCV	R42572	8/31/2011 10:20:00 AM	Charles O`Bryan		
RLVS1 083111 VOA	MA_APH	RLVS	R42572	8/31/2011 11:10:00 AM	Charles O`Bryan		
MBLK 083111 VOA9	MA_APH	MBLK	R42572	8/31/2011 12:17:00 PM	Charles O`Bryan		
1108688-010A	MA_APH	SAMP	R42572	8/31/2011 12:59:00 PM	Charles O`Bryan		
1108899-017A	MA_APH	SAMP	R42572	8/31/2011 1:58:00 PM	Charles O`Bryan		
1108899-018A	MA_APH	SAMP	R42572	8/31/2011 2:43:00 PM	Charles O`Bryan		
1108688-001A	MA_APH	SAMP	R42572	8/31/2011 3:29:00 PM	Charles O`Bryan		
1108688-002A	MA_APH	SAMP	R42572	8/31/2011 4:57:00 PM	Charles O`Bryan		
1108899-019A	MA_APH	SAMP	R42572	8/31/2011 7:10:00 PM	Charles O`Bryan		Over-diluted sample. Imported here to show that sample and duplicate were analyzed. Will re-run at a lower dilution.
1108899-019ADUP	MA_APH	DUP	R42572	8/31/2011 7:52:00 PM	Charles O`Bryan		Over-diluted sample. Imported here to show that sample and duplicate were analyzed. Will re-run at a lower dilution.
1108899-020A	MA_APH	SAMP	R42572	8/31/2011 8:38:00 PM	Charles O`Bryan		
1108899-026A	MA_APH	SAMP	R42572	9/1/2011 1:13:00 AM	Charles O`Bryan		
1108899-027A	MA_APH	SAMP	R42572	9/1/2011 1:59:00 AM	Charles O`Bryan		
1108688-024A	MA_APH	SAMP	R42572	9/1/2011 2:44:00 AM	Charles O`Bryan		
1108899-028A	MA_APH	SAMP	R42572	9/1/2011 3:30:00 AM	Charles O`Bryan		
RLVS2 083111 VOA	MA_APH	RLVS	R42572	9/1/2011 4:12:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

19-Oct-11

RunNo 42572

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
825008	BFB 083111 VOA9	BFB_TUNE	TUNE	\I\DATA\083111	8/31/2011 9:06:0	1	R42572		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		90.8	90.8		0	0	0	0	0	0	0%	50	120	0%	
175	M		8	8		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.6	96.6		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	
50	M		19.2	19.2		0	0	0	0	0	0	0%	8	40	0%	
75	M		39.7	39.7		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.7	6.7		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
825009	CCV 083111 VOA9	MA_APH	CCV	\I\DATA\083111	8/31/2011 10:20:	1	R42572		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	197.61	197.61		222	0	0	0	0	0	89%	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	237.19	237.19		185	0	0	0	0	0	128%	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	216.84	216.84		221	0	0	0	0	0	98%	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	85.54	85.54		89.5	0	0	0	0	0	96%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\083111\08311102.D Vial: 2
Acq On : 31 Aug 2011 10:20 am Operator: RACHEL HILL
Sample : CCV 083111 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 1 9:13 2011 Quant Results File: 081611V9.RES

Quant Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration
DataAcq Meth : 081611V9

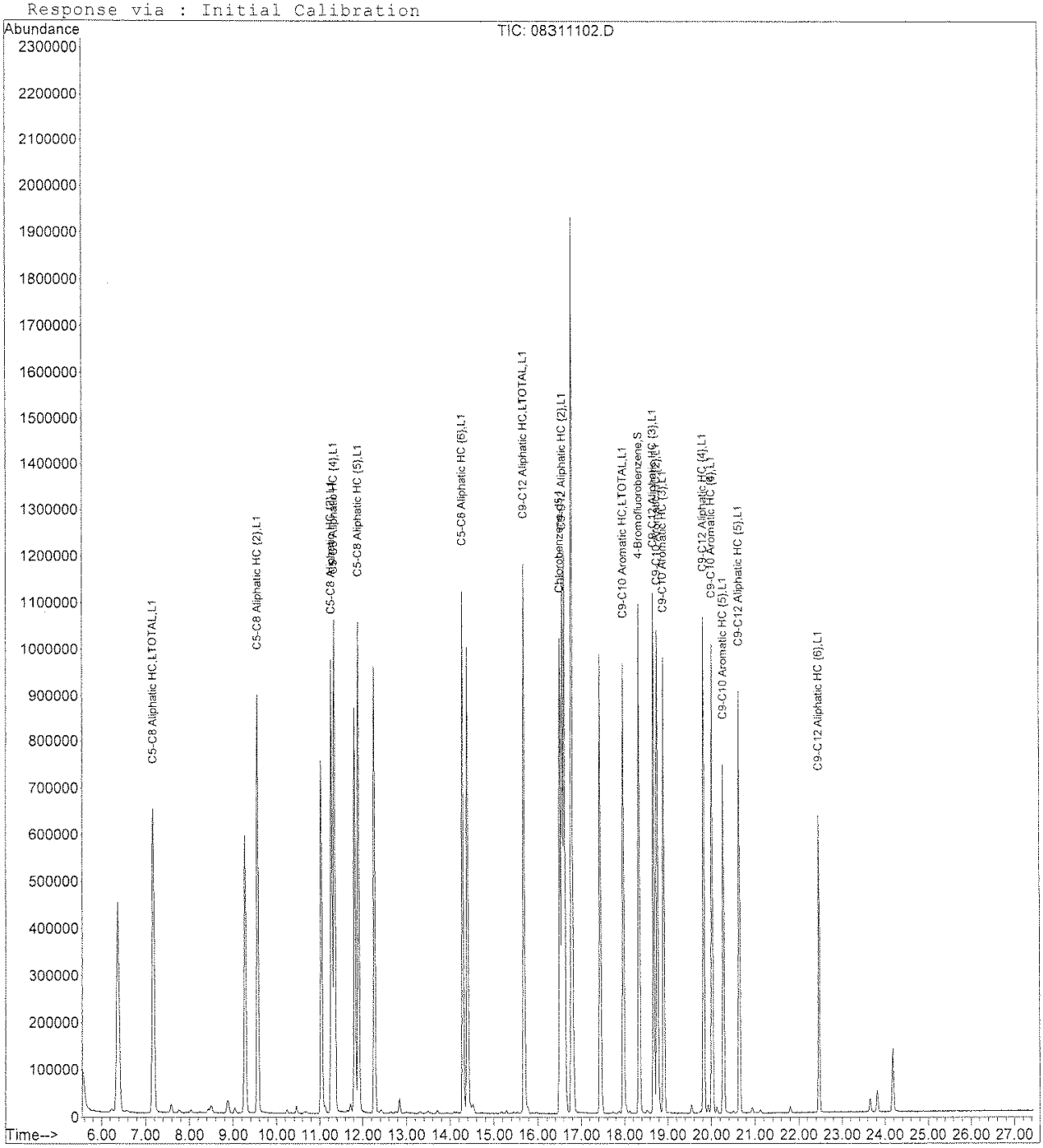
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	859276	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.33	95	559184	85.54	ug/m3	-0.01
Spiked Amount 89.500	Range 70 - 130		Recovery = 95.58%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	2262900	25.40	ug/m3	100
2) C5-C8 Aliphatic HC (2)	9.57	TIC	2304740	33.20	ug/m3	100
3) C5-C8 Aliphatic HC (3)	11.28	TIC	2540276	33.52	ug/m3	100
4) C5-C8 Aliphatic HC (4)	11.34	TIC	2776311	39.66	ug/m3	100
5) C5-C8 Aliphatic HC (5)	11.91	TIC	2391690	32.78	ug/m3	100
6) C5-C8 Aliphatic HC (6)	14.29	TIC	2452171	33.52	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	14728088m	197.61	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2943580	37.39	ug/m3	100
9) C9-C12 Aliphatic HC (2)	16.57	TIC	2653522	35.11	ug/m3	100
10) C9-C12 Aliphatic HC (3)	18.68	TIC	2420720	36.57	ug/m3	100
11) C9-C12 Aliphatic HC (4)	19.83	TIC	2404221	37.11	ug/m3	100
12) C9-C12 Aliphatic HC (5)	20.64	TIC	1932386	34.14	ug/m3	100
13) C9-C12 Aliphatic HC (6)	22.47	TIC	1302306	29.21	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	13656735m	216.84	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	251475	44.54	ug/m3	100
16) C9-C10 Aromatic HC (2)	18.76	120	299828	50.35	ug/m3	100
17) C9-C10 Aromatic HC (3)	18.91	120	408476	47.97	ug/m3	100
18) C9-C10 Aromatic HC (4)	20.02	120	85256	49.17	ug/m3	100
19) C9-C10 Aromatic HC (5)	20.28	120	274891	42.91	ug/m3	100
20) C9-C10 Aromatic HC (6)	20.02	134	233400	51.60	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1553326m	237.19	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\083111\08311102.D Vial: 2
Acq On : 31 Aug 2011 10:20 am Operator: RACHEL HILL
Sample : CCV 083111 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 1 9:13 2011 Quant Results File: 081611V9.RES

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110901A **Run No.:** 42638

Analytical Run Date: 9/1/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:**

Column Length:

Run Comments: Ran out of liquid nitrogen during middle of run, this is why ending RLVS is not present.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 090111 VOA9	BFB_TUNE	TUNE	R42638	9/1/2011 9:41:00 AM	Charles O`Bryan		
CCV 090111 VOA9	MA_APH	CCV	R42638	9/1/2011 10:25:00 AM	Charles O`Bryan		
RLVS1 090111 VOA	MA_APH	RLVS	R42638	9/1/2011 11:08:00 AM	Charles O`Bryan		
MBLK 090111 VOA9	MA_APH	MBLK	R42638	9/1/2011 12:12:00 PM	Charles O`Bryan		
1108688-003A	MA_APH	SAMP	R42638	9/1/2011 1:34:00 PM	Charles O`Bryan		
1108688-004A	MA_APH	SAMP	R42638	9/1/2011 2:17:00 PM	Charles O`Bryan		
1108899-024A	MA_APH	SAMP	R42638	9/1/2011 2:59:00 PM	Charles O`Bryan		
1108688-011A	MA_APH	SAMP	R42638	9/1/2011 3:42:00 PM	Charles O`Bryan		
1108688-025A	MA_APH	SAMP	R42638	9/1/2011 4:25:00 PM	Charles O`Bryan		
1108688-005A	MA_APH	SAMP	R42638	9/1/2011 5:09:00 PM	Charles O`Bryan		
1108899-019A	MA_APH	SAMP	R42638	9/1/2011 5:52:00 PM	Charles O`Bryan		
1108899-021A	MA_APH	SAMP	R42638	9/1/2011 6:34:00 PM	Charles O`Bryan		
1108899-022A	MA_APH	SAMP	R42638	9/1/2011 7:17:00 PM	Charles O`Bryan		
1108899-022ADUP	MA_APH	DUP	R42638	9/1/2011 8:00:00 PM	Charles O`Bryan		
1108899-023A	MA_APH	SAMP	R42638	9/1/2011 8:42:00 PM	Charles O`Bryan		
1108899-029A	MA_APH	SAMP	R42638	9/1/2011 9:28:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42638

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
826577	BFB 090111 VOA9	BFB_TUNE	TUNE	\I\DATA\090111\	9/1/2011 9:41:00	1	R42638		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		86.3	86.3		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.8	7.8		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.8	97.8		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	
50	M		19.7	19.7		0	0	0	0	0	0	0%	8	40	0%	
75	M		40	40		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
826578	CCV 090111 VOA9	MA_APH	CCV	\I\DATA\090111\	9/1/2011 10:25:0	1	R42638		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	189.08	189.08		222	0	0	0	0	0	85%	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	221.17	221.17		185	0	0	0	0	0	120%	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	208.85	208.85		221	0	0	0	0	0	95%	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	87.55	87.55		89.5	0	0	0	0	0	98%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\090111\09011102.D Vial: 2
Acq On : 1 Sep 2011 10:25 am Operator: RACHEL HILL
Sample : CCV 090111 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 6 8:44 2011 Quant Results File: 081611V9.RES

Quant Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration
DataAcq Meth : 081611V9

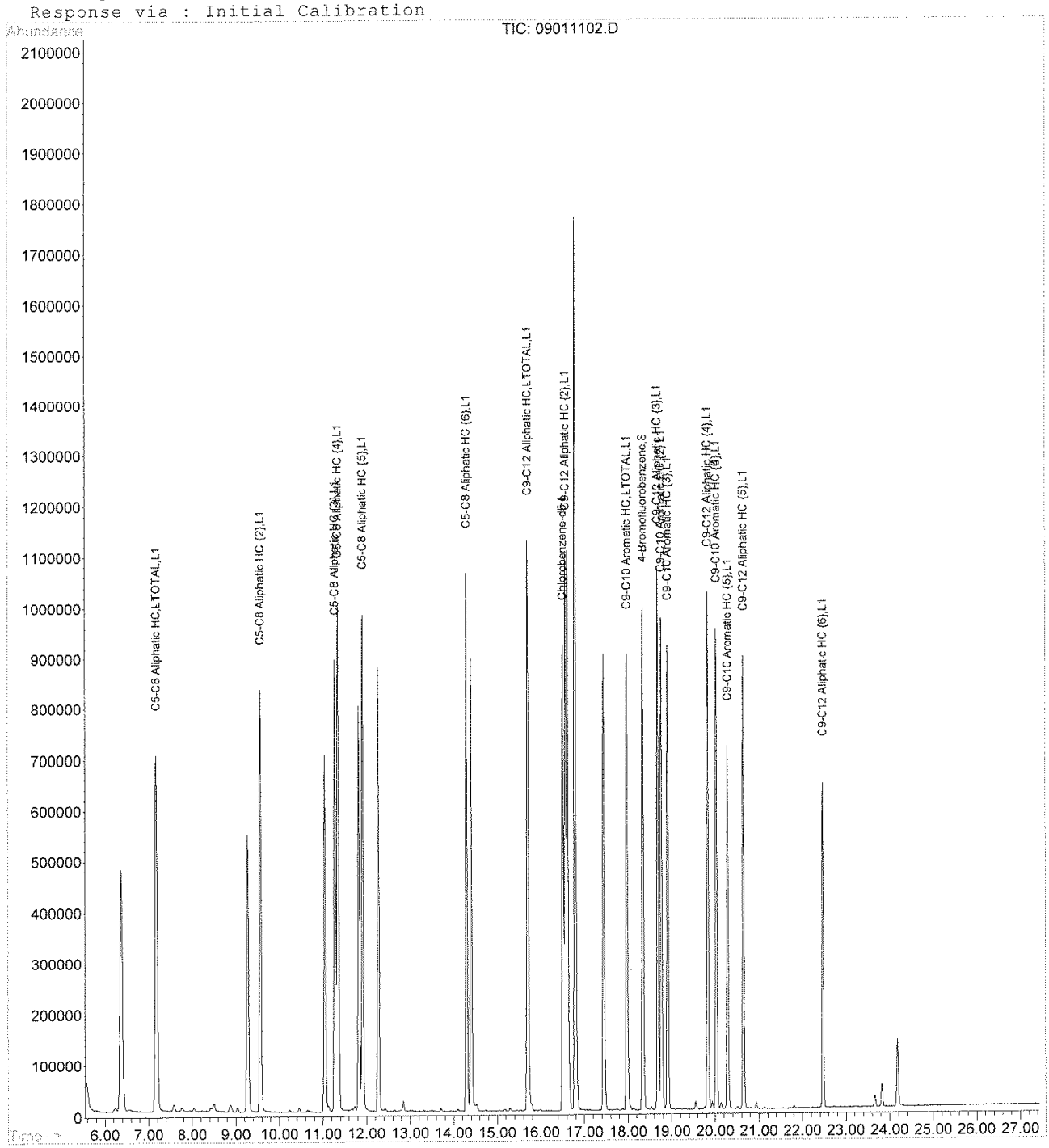
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	762651	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	507981	87.55	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery =	97.82%		
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	2413656	27.09	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2163289	31.16	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2293668	30.27	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2668142	38.11	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.92	TIC	2244040	30.75	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2309263	31.57	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	14092058m	189.08	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2815013	35.76	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	2507760	33.18	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	2302459	34.79	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2321182	35.82	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	1896952	33.51	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1310008	29.38	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	13153374m	208.85	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	230893	40.89	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	279069	46.86	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	378769	44.48	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	81146	46.80	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	258725	40.38	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	219796	48.59	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1448398m	221.17	ug/m3	

(#) = qualifier out of range (m) = manual integration
09011102.D 081611V9.M Thu Oct 20 10:53:44 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090111\09011102.D Vial: 2
Acq On : 1 Sep 2011 10:25 am Operator: RACHEL HILL
Sample : CCV 090111 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 6 8:44 2011 Quant Results File: 081611V9.RES

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110906A **Run No.:** 42664

Analytical Run Date: 9/6/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42263 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 090611 VOA9	BFB_TUNE	TUNE	R42664	9/6/2011 9:09:00 AM	Charles O`Bryan		
CCV 090611 VOA9	MA_APH	CCV	R42664	9/6/2011 9:55:00 AM	Charles O`Bryan		
RLVS1 090611 VOA	MA_APH	RLVS	R42664	9/6/2011 10:52:00 AM	Charles O`Bryan		
MBLK 090611 VOA9	MA_APH	MBLK	R42664	9/6/2011 11:46:00 AM	Charles O`Bryan		
1108899-031A	MA_APH	SAMP	R42664	9/6/2011 12:32:00 PM	Charles O`Bryan		
1108899-032A	MA_APH	SAMP	R42664	9/6/2011 1:19:00 PM	Charles O`Bryan		
1108899-033A	MA_APH	SAMP	R42664	9/6/2011 2:06:00 PM	Charles O`Bryan		
1108899-034A	MA_APH	SAMP	R42664	9/6/2011 2:52:00 PM	Charles O`Bryan		
1108899-035A	MA_APH	SAMP	R42664	9/6/2011 3:41:00 PM	Charles O`Bryan		
1108899-001A	MA_APH	SAMP	R42664	9/6/2011 5:12:00 PM	Charles O`Bryan		Over diluted sample. Reported here to show that sample and duplicate were analyzed. Will re-run at a lower dilution.
1108899-001ADUP	MA_APH	DUP	R42664	9/6/2011 5:55:00 PM	Charles O`Bryan		
1108899-002A	MA_APH	SAMP	R42664	9/6/2011 6:42:00 PM	Charles O`Bryan		
1108899-003A	MA_APH	SAMP	R42664	9/6/2011 7:29:00 PM	Charles O`Bryan		
1108899-004A	MA_APH	SAMP	R42664	9/6/2011 8:16:00 PM	Charles O`Bryan		
1108899-005A	MA_APH	SAMP	R42664	9/6/2011 9:03:00 PM	Charles O`Bryan		
1108899-011A	MA_APH	SAMP	R42664	9/7/2011 1:47:00 AM	Charles O`Bryan		
1108899-012A	MA_APH	SAMP	R42664	9/7/2011 2:34:00 AM	Charles O`Bryan		
RLVS2 090611 VOA	MA_APH	RLVS	R42664	9/7/2011 4:05:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

19-Oct-11

RunNo 42664

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827245	BFB 090611 VOA9	BFB_TUNE	TUNE	\1\DATA\090611\	9/6/2011 9:09:00	1	R42664		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		96.9	96.9		0	0	0	0	0	0	0%	50	120	0%	
175	M		5.4	5.4		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.4	97.4		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		18.9	18.9		0	0	0	0	0	0	0%	8	40	0%	
75	M		40	40		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827246	CCV 090611 VOA9	MA_APH	CCV	\1\DATA\090611\	9/6/2011 9:55:00	1	R42664		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	158.86	158.86		222	0	0	0	0	0	72%	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	205.68	205.68		185	0	0	0	0	0	111%	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	175.34	175.34		221	0	0	0	0	0	79%	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	85.18	85.18		89.5	0	0	0	0	0	95%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\090611\09061102.D Vial: 2
Acq On : 6 Sep 2011 9:55 am Operator: RACHEL HILL
Sample : CCV 090611 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 7 8:52 2011 Quant Results File: 081611V9.RES

Quant Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration
DataAcq Meth : 081611V9

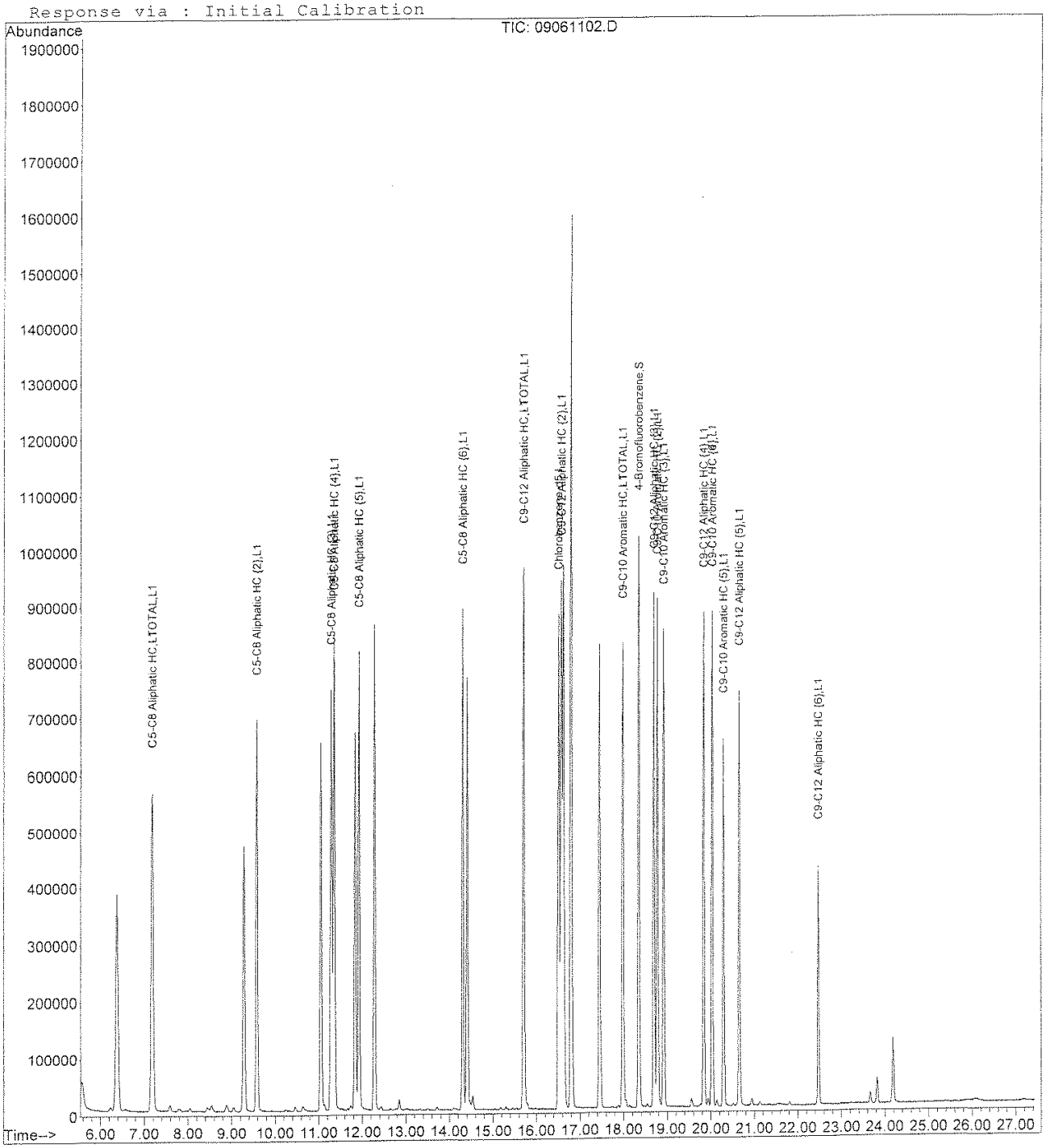
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	768480	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	497994	85.18	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 95.17%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	1957871	21.98	ug/m3	100
2) C5-C8 Aliphatic HC (2)	9.58	TIC	1806414	26.02	ug/m3	100
3) C5-C8 Aliphatic HC (3)	11.28	TIC	1980851	26.14	ug/m3	100
4) C5-C8 Aliphatic HC (4)	11.35	TIC	2237263	31.96	ug/m3	100
5) C5-C8 Aliphatic HC (5)	11.92	TIC	1882867	25.80	ug/m3	100
6) C5-C8 Aliphatic HC (6)	14.30	TIC	1974718	27.00	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	11839984m	158.86	ug/m3	
8) C9-C12 Aliphatic HC	15.71	TIC	2416500	30.70	ug/m3	100
9) C9-C12 Aliphatic HC (2)	16.57	TIC	2203276	29.15	ug/m3	100
10) C9-C12 Aliphatic HC (3)	18.69	TIC	1956123	29.55	ug/m3	100
11) C9-C12 Aliphatic HC (4)	19.83	TIC	1998585	30.84	ug/m3	100
12) C9-C12 Aliphatic HC (5)	20.65	TIC	1591375	28.11	ug/m3	100
13) C9-C12 Aliphatic HC (6)	22.47	TIC	877050	19.67	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.71	TIC	11042909m	175.34	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	215372	38.15	ug/m3	100
16) C9-C10 Aromatic HC (2)	18.77	120	258612	43.43	ug/m3	100
17) C9-C10 Aromatic HC (3)	18.91	120	349922	41.09	ug/m3	100
18) C9-C10 Aromatic HC (4)	20.03	120	74495	42.96	ug/m3	100
19) C9-C10 Aromatic HC (5)	20.29	120	241006	37.62	ug/m3	100
20) C9-C10 Aromatic HC (6)	20.03	134	207587	45.89	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1346994m	205.68	ug/m3	

(#) = qualifier out of range (m) = manual integration
09061102.D 081611V9.M Fri Sep 30 11:23:48 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090611\09061102.D Vial: 2
Acq On : 6 Sep 2011 9:55 am Operator: RACHEL HILL
Sample : CCV 090611 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 7 8:52 2011 Quant Results File: 081611V9.RES

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110921A **Run No.:** 42997

Analytical Run Date: 9/21/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 092111 VOA9	BFB_TUNE	TUNE	R42997	9/21/2011 2:19:00 PM	Charles O`Bryan		
APH ICAL Level 1	MA_APH	ICAL	R42997	9/21/2011 3:43:00 PM	Charles O`Bryan		
APH ICAL Level 2	MA_APH	ICAL	R42997	9/21/2011 4:26:00 PM	Charles O`Bryan		
APH ICAL Level 3	MA_APH	ICAL	R42997	9/21/2011 5:09:00 PM	Charles O`Bryan		
APH ICAL Level 4	MA_APH	ICAL	R42997	9/21/2011 5:51:00 PM	Charles O`Bryan		
APH ICAL Level 5	MA_APH	ICAL	R42997	9/21/2011 6:34:00 PM	Charles O`Bryan		
APH ICAL Level 6	MA_APH	ICAL	R42997	9/21/2011 7:18:00 PM	Charles O`Bryan		
APH ICAL Level 7	MA_APH	ICAL	R42997	9/21/2011 8:03:00 PM	Charles O`Bryan		
BFB2 092111 VOA9	BFB_TUNE	TUNE	R42997	9/21/2011 8:45:00 PM	Charles O`Bryan		
CCV 092111 VOA9	MA_APH	CCV	R42997	9/21/2011 9:27:00 PM	Charles O`Bryan		
RLVS1 092111 VOA	MA_APH	RLVS	R42997	9/21/2011 10:09:00 PM	Charles O`Bryan		
BLK1 092111 VOA9	MA_APH	MBLK	R42997	9/21/2011 10:58:00 PM	Charles O`Bryan		
1108899-030A	MA_APH	SAMP	R42997	9/21/2011 11:40:00 PM	Charles O`Bryan	H	
1109555-010A	MA_APH	SAMP	R42997	9/22/2011 1:50:00 AM	Charles O`Bryan		
1109555-011A	MA_APH	SAMP	R42997	9/22/2011 2:35:00 AM	Charles O`Bryan		
1109555-012A	MA_APH	SAMP	R42997	9/22/2011 3:20:00 AM	Charles O`Bryan		
1109555-027A	MA_APH	SAMP	R42997	9/22/2011 4:53:00 AM	Charles O`Bryan		
1109555-028A	MA_APH	SAMP	R42997	9/22/2011 5:38:00 AM	Charles O`Bryan		
1108899-025A	MA_APH	SAMP	R42997	9/22/2011 12:48:00 PM	Charles O`Bryan	H	
1108899-036A	MA_APH	SAMP	R42997	9/22/2011 2:19:00 PM	Charles O`Bryan	H	
1108899-036ADUP	MA_APH	DUP	R42997	9/22/2011 3:01:00 PM	Charles O`Bryan	H	
1108899-012A	MA_APH	SAMP	R42997	9/22/2011 5:17:00 PM	Charles O`Bryan	H	
1108899-001A	MA_APH	SAMP	R42997	9/22/2011 6:06:00 PM	Charles O`Bryan	H	
1108899-006A	MA_APH	SAMP	R42997	9/22/2011 6:48:00 PM	Charles O`Bryan	H	
RLVS2 092111 VOA	MA_APH	RLVS	R42997	9/22/2011 7:30:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836495	BFB2 092111 VOA9	BFB_TUNE	TUNE	\1\DATA\092111'9/21/2011 8:45:0		1	R42997		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		95.7	95.7		0	0	0	0	0	0	0%	50	120	0%	
175	M		8.2	8.2		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.2	97.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	
50	M		20.4	20.4		0	0	0	0	0	0	0%	8	40	0%	
75	M		42.7	42.7		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		7.5	7.5		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836503	CCV 092111 VOA9	MA_APH	CCV	\1\DATA\092111'9/21/2011 9:27:0		1	R42997		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	261.73	261.73		234	0	0	0	0	0	112%	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	287.82	287.82		266	0	0	0	0	0	108%	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	414.92	414.92		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	90.18	90.18		89.5	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
836504	RLVS1 092111 VOA	MA_APH	RLVS	\1\DATA\092111'9/21/2011 10:09:		1	R42997		0	0	

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092111\09211111.D
Acq On : 21 Sep 2011 9:27 pm
Sample : CCV 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 22 10:02 2011

Vial: 11
Operator: MICHAEL TRUCHAN
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	574128	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	370861	90.18	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 100.76%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	1078911	34.67	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	1211685	40.22	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1573561	47.14	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1231808	38.74	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.92	TIC	1484092	46.42	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1782905	54.59	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	8362962m	261.73	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2170131	61.39	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	2105619	62.05	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	2005671	67.19	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2089686	67.12	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1985397	75.63	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1785177	79.76	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	12141681m	414.92	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	202979	55.41	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	213353	55.07	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	320023	56.73	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	73003	62.76	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	246107	56.92	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	202608	63.53	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1258073m	287.82	ug/m3	

(#) = qualifier out of range (m) = manual integration
09211111.D 092111V9.M Thu Oct 20 10:57:08 2011

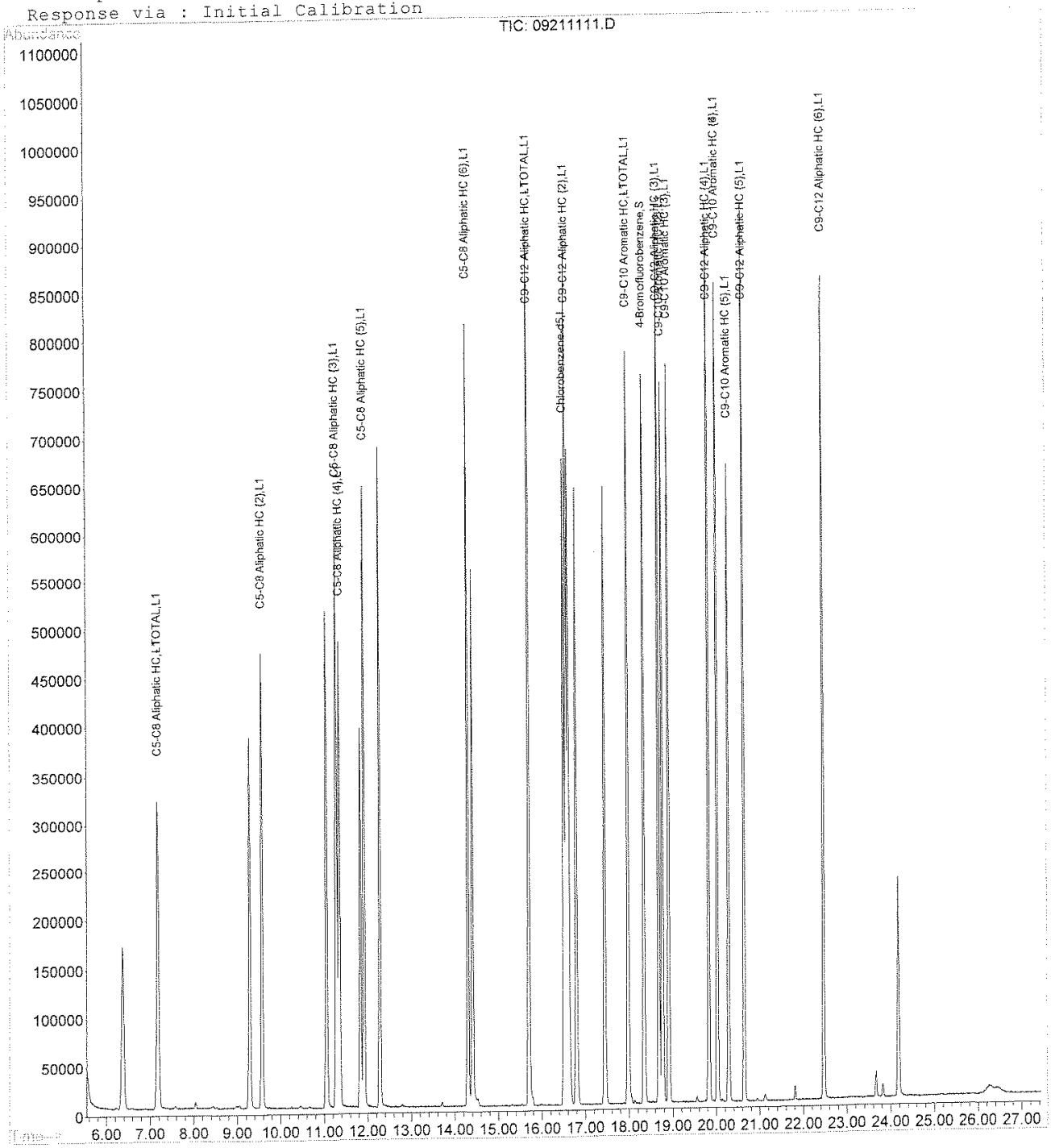
Quantitation Report

Data File : C:\HPCHEM\1\DATA\092111\09211111.D
Acq On : 21 Sep 2011 9:27 pm
Sample : CCV 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Sep 22 10:02 2011

Vial: 11
Operator: MICHAEL TRUCHAN
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110922A **Run No.:** 42999

Analytical Run Date: 9/22/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB3 092211 VOA9	BFB_TUNE	TUNE	R42999	9/22/2011 8:11:00 PM	Charles O`Bryan		
CCV2 092111 VOA9	MA_APH	CCV	R42999	9/22/2011 8:54:00 PM	Charles O`Bryan		
RLVS3 092111 VOA	MA_APH	RLVS	R42999	9/22/2011 9:36:00 PM	Charles O`Bryan		
BLK2 092111 VOA9	MA_APH	MBLK	R42999	9/22/2011 10:25:00 PM	Charles O`Bryan		
1108899-009A	MA_APH	SAMP	R42999	9/23/2011 12:31:00 AM	Charles O`Bryan	H	
1108899-009ADUP	MA_APH	DUP	R42999	9/23/2011 1:13:00 AM	Charles O`Bryan	H	
1108899-010A	MA_APH	SAMP	R42999	9/23/2011 1:55:00 AM	Charles O`Bryan	H	
1108899-013A	MA_APH	SAMP	R42999	9/23/2011 2:37:00 AM	Charles O`Bryan	H	
1108899-014A	MA_APH	SAMP	R42999	9/23/2011 3:19:00 AM	Charles O`Bryan	H	
1108899-015A	MA_APH	SAMP	R42999	9/23/2011 4:02:00 AM	Charles O`Bryan	H	
1109105-020A	MA_APH	SAMP	R42999	9/23/2011 4:50:00 AM	Charles O`Bryan	H	
1109105-021A	MA_APH	SAMP	R42999	9/23/2011 5:39:00 AM	Charles O`Bryan	H	
1109105-022A	MA_APH	SAMP	R42999	9/23/2011 6:28:00 AM	Charles O`Bryan	H	
1109105-023A	MA_APH	SAMP	R42999	9/23/2011 9:56:00 AM	Charles O`Bryan	H	
1109105-026A	MA_APH	SAMP	R42999	9/23/2011 10:38:00 AM	Charles O`Bryan	H	
1109105-027A	MA_APH	SAMP	R42999	9/23/2011 11:20:00 AM	Charles O`Bryan	H	
1109105-025A	MA_APH	SAMP	R42999	9/23/2011 12:02:00 PM	Charles O`Bryan	H	
1109105-028A	MA_APH	SAMP	R42999	9/23/2011 2:05:00 PM	Charles O`Bryan	H	
1109105-029A	MA_APH	SAMP	R42999	9/23/2011 2:53:00 PM	Charles O`Bryan	H	
1109105-030A	MA_APH	SAMP	R42999	9/23/2011 3:42:00 PM	Charles O`Bryan	H	
RLVS4 092111 VOA	MA_APH	RLVS	R42999	9/23/2011 4:27:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42999

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836549	BFB3 092211 VOA9	BFB_TUNE	TUNE	\\1\DATA\092111	9/22/2011 8:11:0	1	R42999		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		96.5	96.5		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.2	96.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.8	6.8		0	0	0	0	0	0	0%	5	9	0%	
50	M		20.3	20.3		0	0	0	0	0	0	0%	8	40	0%	
75	M		42	42		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
836550	CCV2 092111 VOA9	MA_APH	CCV	\\1\DATA\092111	9/22/2011 8:54:0	1	R42999		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	261.14	261.14		234	0	0	0	0	0	112%	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	267.3	267.3		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	399.71	399.71		378	0	0	0	0	0	106%	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	92.67	92.67		89.5	0	0	0	0	0	104%	70	130	0%	

1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092111\09211135.D Vial: 11
Acq On : 22 Sep 2011 8:54 pm Operator: MICHAEL TRUCHAN
Sample : CCV2 092111 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 23 10:19 2011 Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

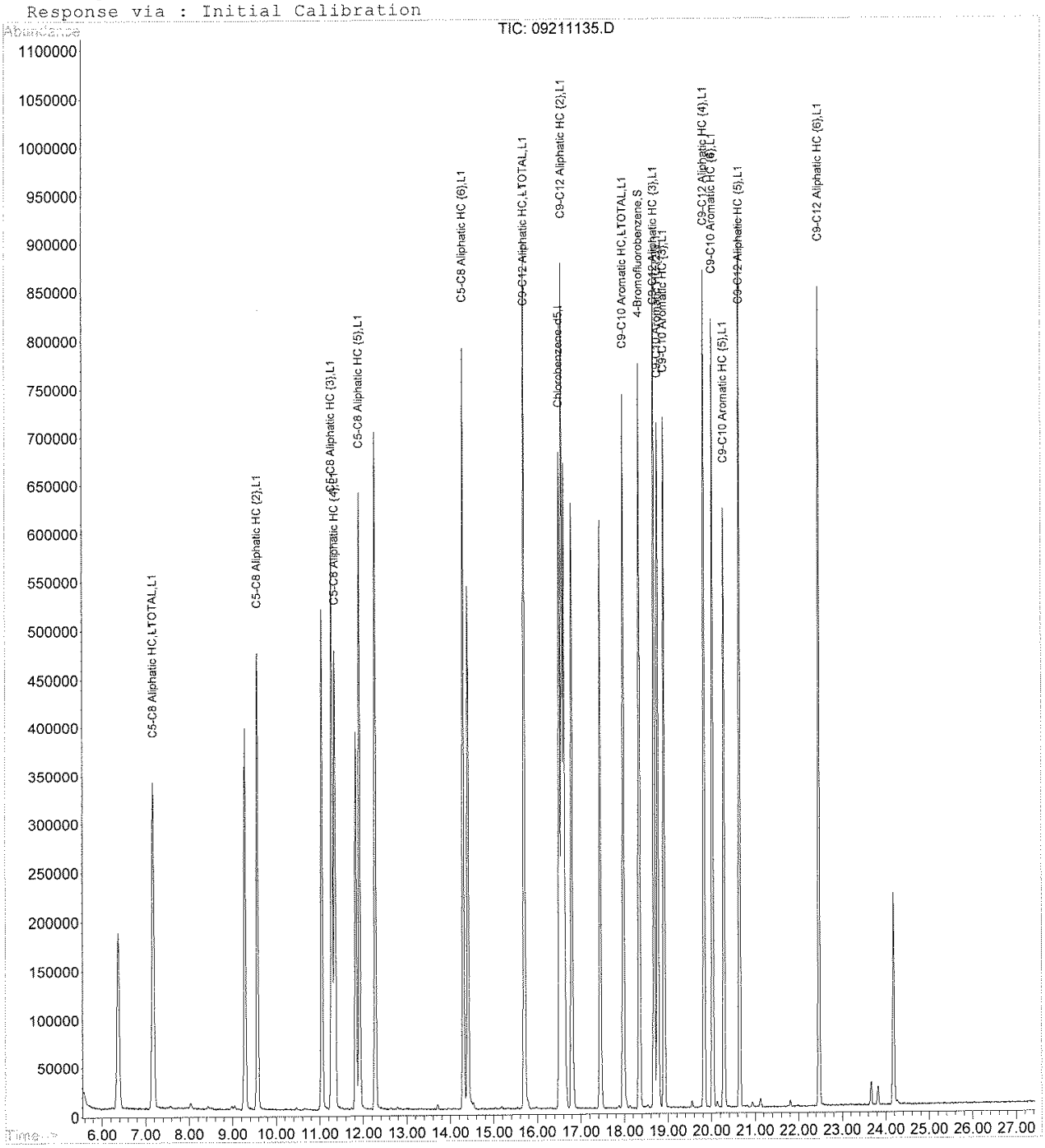
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	563269	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	373896	92.67	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 103.54%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	1149163	36.93	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	1233717	40.95	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	1541730	46.19	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	1217597	38.29	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1456418	45.56	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	1745552	53.45	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	8344177m	261.14	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2112161	59.75	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	1923679	56.69	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1937448	64.90	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1998409	64.19	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1937214	73.79	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	1787491	79.86	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	11696402m	399.71	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	188714	51.51	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	201058	51.90	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	295338	52.35	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	67940	58.41	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	227366	52.59	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	187982	58.94	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1168398m	267.30	ug/m3	

(#) = qualifier out of range (m) = manual integration
09211135.D 092111V9.M Thu Oct 20 10:57:46 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092111\09211135.D Vial: 11
Acq On : 22 Sep 2011 8:54 pm Operator: MICHAEL TRUCHAN
Sample : CCV2 092111 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 23 10:19 2011 Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_110923A **Run No.:** 43034

Analytical Run Date: 9/23/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 092311 VOA9	BFB_TUNE	TUNE	R43034	9/23/2011 5:27:00 PM	Charles O`Bryan		
CCV1 092311 VOA9	MA_APH	CCV	R43034	9/23/2011 6:09:00 PM	Charles O`Bryan		
RLVS1 092311 VOA	MA_APH	RLVS	R43034	9/23/2011 7:14:00 PM	Charles O`Bryan		
BLK2 092311 VOA9	MA_APH	MBLK	R43034	9/23/2011 8:03:00 PM	Charles O`Bryan		
1108899-007A	MA_APH	SAMP	R43034	9/23/2011 9:33:00 PM	Charles O`Bryan	H	
1108899-008A	MA_APH	SAMP	R43034	9/23/2011 10:15:00 PM	Charles O`Bryan	H	
1108899-008ADUP	MA_APH	DUP	R43034	9/23/2011 10:57:00 PM	Charles O`Bryan	H	
1109105-006A	MA_APH	SAMP	R43034	9/24/2011 1:57:00 AM	Charles O`Bryan	H	
1109105-013A	MA_APH	SAMP	R43034	9/24/2011 2:42:00 AM	Charles O`Bryan	H	
1109105-014A	MA_APH	SAMP	R43034	9/24/2011 3:27:00 AM	Charles O`Bryan	H	
1109105-015A	MA_APH	SAMP	R43034	9/24/2011 4:12:00 AM	Charles O`Bryan	H	
1109105-016A	MA_APH	SAMP	R43034	9/24/2011 5:00:00 AM	Charles O`Bryan	H	
1109105-019A	MA_APH	SAMP	R43034	9/24/2011 6:30:00 AM	Charles O`Bryan		
1109105-017A	MA_APH	SAMP	R43034	9/24/2011 9:17:00 AM	Charles O`Bryan	H	
RLVS2 092311 VOA	MA_APH	RLVS	R43034	9/24/2011 12:14:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

19-Oct-11

RunNo 43034

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837646	BFB1 092311 VOA9	BFB_TUNE	TUNE	\I\DATA\092311	9/23/2011 5:27:0	1	R43034		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		95.4	95.4		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.5	97.5		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.4	6.4		0	0	0	0	0	0	0%	5	9	0%	
50	M		19.9	19.9		0	0	0	0	0	0	0%	8	40	0%	
75	M		41.9	41.9		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837647	CCV1 092311 VOA9	MA_APH	CCV	\I\DATA\092311	9/23/2011 6:09:0	1	R43034		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	253.3	253.3		234	0	0	0	0	0	108%	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	270.21	270.21		266	0	0	0	0	0	102%	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	409.82	409.82		378	0	0	0	0	0	108%	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	95.89	95.89		89.5	0	0	0	0	0	107%	70	130	0%	

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Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 6:09 pm Operator: MICHAEL TRUCHAN
Sample : CCV1 092311 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 10:19 2011 Quant Results File: 092111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
DataAcq Meth : 092111V9

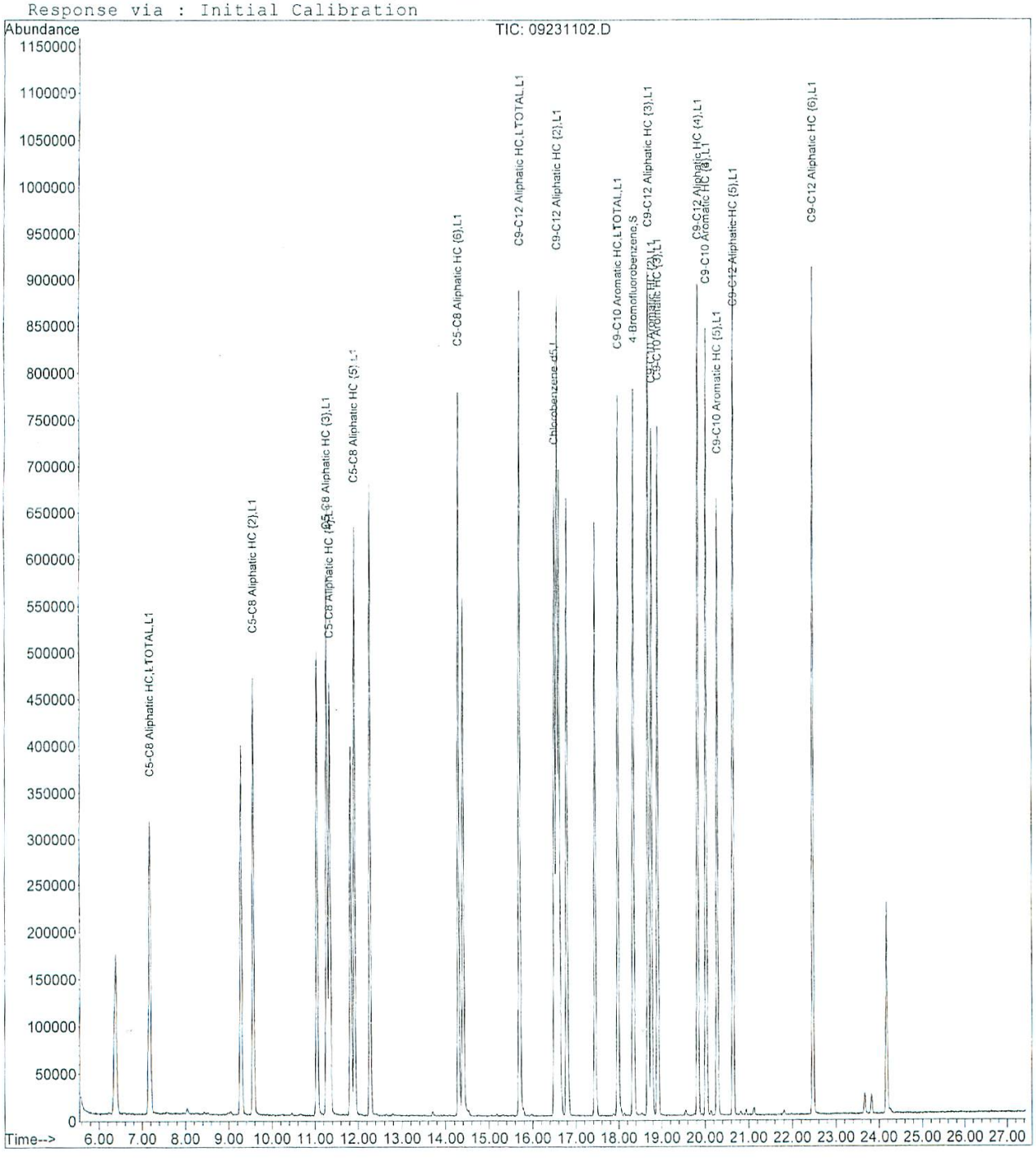
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	547081	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	375743	95.89	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 107.14%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	1065348	34.23	ug/m3	100
2) C5-C8 Aliphatic HC (2)	9.57	TIC	1196124	39.70	ug/m3	100
3) C5-C8 Aliphatic HC (3)	11.28	TIC	1496472	44.83	ug/m3	100
4) C5-C8 Aliphatic HC (4)	11.35	TIC	1174324	36.93	ug/m3	100
5) C5-C8 Aliphatic HC (5)	11.91	TIC	1435450	44.90	ug/m3	100
6) C5-C8 Aliphatic HC (6)	14.29	TIC	1725850	52.85	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	8093568m	253.30	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	2100329	59.41	ug/m3	100
9) C9-C12 Aliphatic HC (2)	16.57	TIC	1960020	57.76	ug/m3	100
10) C9-C12 Aliphatic HC (3)	18.68	TIC	1975554	66.18	ug/m3	100
11) C9-C12 Aliphatic HC (4)	19.83	TIC	2064004	66.29	ug/m3	100
12) C9-C12 Aliphatic HC (5)	20.64	TIC	2013133	76.68	ug/m3	100
13) C9-C12 Aliphatic HC (6)	22.47	TIC	1879316	83.96	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	11992356m	409.82	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	190586	52.02	ug/m3	100
16) C9-C10 Aromatic HC (2)	18.77	120	202630	52.30	ug/m3	100
17) C9-C10 Aromatic HC (3)	18.91	120	294220	52.16	ug/m3	100
18) C9-C10 Aromatic HC (4)	20.03	120	70741	60.81	ug/m3	100
19) C9-C10 Aromatic HC (5)	20.28	120	229488	53.08	ug/m3	100
20) C9-C10 Aromatic HC (6)	20.02	134	193458	60.66	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1181123m	270.21	ug/m3	

(#) = qualifier out of range (m) = manual integration
09231102.D 092111V9.M Fri Sep 30 12:28:41 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\092311\09231102.D Vial: 2
Acq On : 23 Sep 2011 6:09 pm Operator: MICHAEL TRUCHAN
Sample : CCV1 092311 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 26 10:19 2011 Quant Results File: 092111V9.RES

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration

Calibration Files
1 =08161105.D 2 =08161106.D 3 =08161107.D
4 =08161108.D 5 =08161109.D 6 =08161110.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	9.819	9.091	8.932	8.680	8.763	8.725	8.909	E4	5.19
2)	L1	C5-C8 Aliphatic HC	8.117	7.136	7.040	6.542	6.567	6.719	6.942	E4	8.30
3)	L1	C5-C8 Aliphatic HC	8.923	7.767	7.617	7.238	7.278	7.273	7.578	E4	8.59
4)	L1	C5-C8 Aliphatic HC	7.905	7.052	7.185	6.596	6.571	6.934	7.001	E4	6.55
5)	L1	C5-C8 Aliphatic HC	8.403	7.440	7.432	7.002	7.033	7.078	7.297	E4	7.57
6)	L1	C5-C8 Aliphatic HC	8.351	7.452	7.529	7.126	7.110	7.076	7.315	E4	7.57
7)	L1	C5-C8 Aliphatic HC	8.542	7.601	7.569	7.155	7.172	7.236	7.453	E4	7.23
8)	L1	C9-C12 Aliphatic HC	9.103	8.077	8.074	7.734	7.681	7.516	7.872	E4	8.51
9)	L1	C9-C12 Aliphatic HC	8.763	7.528	7.897	7.424	7.358	7.348	7.558	E4	8.72
10)	L1	C9-C12 Aliphatic HC	7.593	6.794	6.896	6.507	6.536	6.289	6.619	E4	8.73
11)	L1	C9-C12 Aliphatic HC	7.358	6.622	6.697	6.363	6.356	6.239	6.480	E4	7.71
12)	L1	C9-C12 Aliphatic HC	6.393	5.843	5.848	5.629	5.569	5.405	5.661	E4	7.90
13)	L1	C9-C12 Aliphatic HC	4.745	4.487	4.533	4.413	4.532	4.410	4.459	E4	4.40
14)	L1	C9-C12 Aliphatic HC	7.142	6.415	6.508	6.206	6.204	6.065	6.298	E4	7.70
15)	L1	C9-C10 Aromatic HC	6.298	5.586	5.706	5.410	5.472	5.608	5.646	E3	5.41
16)	L1	C9-C10 Aromatic HC	6.517	5.918	6.008	5.679	5.773	5.924	5.955	E3	4.54
17)	L1	C9-C10 Aromatic HC	9.376	8.453	8.598	8.172	8.336	8.421	8.515	E3	4.74
18)	L1	C9-C10 Aromatic HC	1.920	1.716	1.755	1.667	1.697	1.724	1.734	E3	5.11
19)	L1	C9-C10 Aromatic HC	7.038	6.311	6.455	6.152	6.240	6.358	6.407	E3	4.59
20)	L1	C9-C10 Aromatic HC	4.927	4.476	4.586	4.411	4.450	4.513	4.523	E3	4.39
21)	L1	C9-C10 Aromatic HC	7.221	6.498	6.609	6.280	6.367	6.509	6.549	E3	4.84
22)		C5-C8 Aliphatic	8.542	7.601	7.569	7.155	7.172	7.236	7.453	E4	7.23
23)	L1	non C5-C8	6.927	6.469	6.553	6.443	6.396	6.454	6.517	E4	2.91
24)	L1	non C5-C8 {2}	5.846	5.052	4.954	4.429	4.413	4.581	4.810	E4	11.01
25)	L1	non C5-C8 {3}	3.629	3.375	3.542	3.745	3.605	3.865	3.632	E4	4.25
26)	L1	non C5-C8 {4}	6.915	5.929	5.921	5.290	5.308	5.566	5.766	E4	9.91
27)	L1	non C5-C8 {5}	4.665	4.235	4.548	5.016	4.637	5.181	4.694	E4	6.69
28)	L1	non C5-C8 {6}	6.985	6.362	6.068	5.604	5.883	6.110	6.133	E4	7.20
29)	L1	non C5-C8 - TOTAL	4.992	4.867	5.013	4.961	4.988	5.344	5.057	E4	3.33
30)		C9-C12 Aliphatic	7.142	6.415	6.508	6.206	6.204	6.065	6.298	E4	7.70
31)	L1	non C9-C12	5.017	4.705	4.895	5.120	4.992	5.243	4.971	E4	3.65
32)	L1	non C9-C12 {2}	6.664	6.084	5.810	5.719	5.502	5.600	5.736	E4	10.03
33)	L1	non C9-C12 {3}	6.743	5.980	6.047	5.656	5.673	5.837	5.947	E4	6.45
34)	L1	non C9-C12 {4}	6.557	5.818	5.833	5.442	5.498	5.629	5.750	E4	6.78
35)	L1	non C9-C12 {5}	3.303	3.137	3.349	3.535	3.400	3.749	3.414	E4	5.62
36)	L1	non C9-C12 - TOTAL	4.290	4.047	4.110	4.058	3.988	4.122	4.063	E4	3.49
37)	L1	C9-C10 Aromatic	7.221	6.498	6.609	6.280	6.367	6.509	6.549	E3	4.84
38)	L1	C9-C10 Aromatic {2}	7.221	6.498	6.609	6.280	6.367	6.509	6.549	E3	4.84
39)	L1	C9-C10 Aromatic - T	7.221	6.498	6.609	6.280	6.367	6.509	6.549	E3	4.84
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.094	0.096	0.096	0.094	0.096	0.095	0.095		0.84

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 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

081611V9.M Thu Oct 20 10:52:39 2011

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration

Calibration Files
1 =09211103.D 2 =09211104.D 3 =09211105.D
4 =09211106.D 5 =09211107.D 6 =09211108.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	3.342	3.501	3.431	3.048	2.961	2.792	3.112	E4	10.14
2)	L1	C5-C8 Aliphatic HC	3.085	3.144	3.314	3.157	3.035	2.776	3.013	E4	8.35
3)	L1	C5-C8 Aliphatic HC	3.482	3.500	3.661	3.492	3.355	3.043	3.338	E4	8.81
4)	L1	C5-C8 Aliphatic HC	3.266	3.329	3.432	3.293	3.244	2.975	3.180	E4	7.73
5)	L1	C5-C8 Aliphatic HC	3.409	3.292	3.437	3.366	3.216	2.933	3.197	E4	8.39
6)	L1	C5-C8 Aliphatic HC	3.531	3.389	3.563	3.402	3.284	2.973	3.266	E4	9.52
7)	L1	C5-C8 Aliphatic HC	3.367	3.358	3.481	3.317	3.202	2.924	3.195	E4	8.60
8)	L1	C9-C12 Aliphatic HC	3.835	3.715	3.856	3.686	3.548	3.204	3.535	E4	10.07
9)	L1	C9-C12 Aliphatic HC	3.862	3.468	3.551	3.532	3.337	3.128	3.393	E4	9.41
10)	L1	C9-C12 Aliphatic HC	3.397	3.098	3.226	3.063	2.977	2.651	2.985	E4	10.66
11)	L1	C9-C12 Aliphatic HC	3.530	3.258	3.337	3.218	3.094	2.779	3.113	E4	10.60
12)	L1	C9-C12 Aliphatic HC	3.001	2.731	2.825	2.691	2.573	2.324	2.625	E4	10.37
13)	L1	C9-C12 Aliphatic HC	2.572	2.269	2.387	2.288	2.231	2.003	2.238	E4	9.90
14)	L1	C9-C12 Aliphatic HC	3.308	3.031	3.139	3.020	2.904	2.628	2.926	E4	10.08
15)	L1	C9-C10 Aromatic HC	4.152	3.792	3.941	3.790	3.620	3.289	3.663	E3	10.30
16)	L1	C9-C10 Aromatic HC	4.471	4.015	4.104	3.947	3.798	3.490	3.874	E3	10.14
17)	L1	C9-C10 Aromatic HC	6.548	5.926	5.959	5.780	5.547	5.034	5.641	E3	10.97
18)	L1	C9-C10 Aromatic HC	1.324	1.207	1.250	1.181	1.141	1.042	1.163	E3	9.79
19)	L1	C9-C10 Aromatic HC	5.007	4.496	4.588	4.444	4.249	3.863	4.323	E3	10.77
20)	L1	C9-C10 Aromatic HC	3.712	3.332	3.387	3.235	3.158	2.825	3.189	E3	10.94
21)	L1	C9-C10 Aromatic HC	5.054	4.563	4.642	4.466	4.290	3.912	4.371	E3	10.62
22)		C5-C8 Aliphatic	3.367	3.358	3.481	3.317	3.202	2.924	3.195	E4	8.60
23)	L1	non C5-C8	2.485	2.302	2.785	2.563	2.422	2.260	2.422	E4	8.87
24)	L1	non C5-C8 {2}	2.950	2.744	2.795	2.687	2.592	2.369	2.629	E4	9.15
25)	L1	non C5-C8 {3}	1.800	2.105	2.247	2.164	2.090	2.028	2.049	E4	7.42
26)	L1	non C5-C8 {4}	2.957	2.860	2.965	2.850	2.769	2.509	2.757	E4	8.12
27)	L1	non C5-C8 {5}	2.635	3.065	3.334	3.156	3.074	2.978	2.984	E4	8.72
28)	L1	non C5-C8 {6}	3.653	3.195	3.353	3.122	3.047	2.900	3.147	E4	9.36
29)	L1	non C5-C8 - TOTAL	2.502	2.694	2.894	2.759	2.681	2.526	2.636	E4	6.48
30)		C9-C12 Aliphatic	3.308	3.031	3.139	3.020	2.904	2.628	2.926	E4	10.08
31)	L1	non C9-C12	2.660	2.963	3.258	3.026	2.928	2.829	2.900	E4	7.49
32)	L1	non C9-C12 {2}	3.509	3.217	3.358	3.219	3.177	2.702	3.102	E4	11.42
33)	L1	non C9-C12 {3}	3.768	3.330	3.474	3.327	3.232	2.980	3.280	E4	9.28
34)	L1	non C9-C12 {4}	3.594	3.238	3.370	3.251	3.157	2.910	3.182	E4	8.82
35)	L1	non C9-C12 {5}	2.094	2.244	2.445	2.372	2.319	2.288	2.267	E4	5.75
36)	L1	non C9-C12 - TOTAL	2.426	2.421	2.560	2.434	2.357	2.139	2.332	E4	8.48
37)	L1	C9-C10 Aromatic	5.054	4.563	4.642	4.466	4.290	3.912	4.371	E3	10.62
38)	L1	C9-C10 Aromatic {2}	5.054	4.563	4.642	4.466	4.290	3.912	4.371	E3	10.62
39)	L1	C9-C10 Aromatic - T	5.054	4.563	4.642	4.466	4.290	3.912	4.371	E3	10.62
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.090	0.088	0.088	0.089	0.091	0.090	0.090		1.33

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 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

092111V9.M Thu Oct 20 10:56:57 2011

RTI Laboratories

Run ID: GC-TCD 1_110902A **Run No.:** 42686

Analytical Run Date: 9/2/2011 **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	R42686	9/2/2011 11:18:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R42686	9/2/2011 12:04:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R42686	9/2/2011 12:23:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R42686	9/2/2011 12:47:00 PM	Robert Lynch		
1108688-018b	ASTM-D2504	SAMP	R42686	9/2/2011 1:42:00 PM	Robert Lynch		
1108688-019b	ASTM-D2504	SAMP	R42686	9/2/2011 2:33:00 PM	Robert Lynch		
1108899-016b	ASTM-D2504	SAMP	R42686	9/2/2011 2:55:00 PM	Robert Lynch		
1108899-017b	ASTM-D2504	SAMP	R42686	9/2/2011 3:53:00 PM	Robert Lynch		
1108899-018b	ASTM-D2504	SAMP	R42686	9/2/2011 4:24:00 PM	Robert Lynch		
1108899-018bdup	ASTM-D2504	DUP	R42686	9/2/2011 4:47:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R42686	9/2/2011 5:10:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R42686	9/2/2011 5:48:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42686

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827997	mblk	ASTM-D2504	MBLK	‹TA\090211\0902	9/2/2011 11:18:0	1	R42686		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
827998	ccv std 1-2 a	ASTM-D2504	CCV	‹TA\090211\0902	9/2/2011 12:04:0	1	R42686		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.762	2.762		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Carbon Monoxide	A	%	2.582	2.582		2.5	0	0	0.025	0.1	0	103%	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	%	1.963	1.963		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.569	2.569		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Oxygen	A	%	2.621	2.621		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827999	lcs	ASTM-D2504	LCS	‹TA\090211\0902	9/2/2011 12:23:0	1	R42686		0	827998	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.763	2.763		2.5	0	2.762	0.025	0.1	0	111%	70	130	0%	
Carbon Monoxide	A	%	2.561	2.561		2.5	0	2.582	0.025	0.1	0	102%	70	130	1%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	1.928	1.928		2	0	1.963	0.025	0.5	0	96%	70	130	2%	
Nitrogen	A	%	2.555	2.555		2.5	0	2.569	0.025	0.1	0	102%	70	130	1%	
Oxygen	A	%	2.601	2.601		2.5	0	2.621	0.025	0.1	0	104%	70	130	1%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
828005	1108899-018b (Container-1 of 1)	ASTM-D2504	SAMP	...TA\090211\0902	9/2/2011 4:24:00	1	R42686		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	19.179	19.179		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
828006	1108899-018bdup	ASTM-D2504	DUP	...TA\090211\0902	9/2/2011 4:47:00	1	R42686		0	828005	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.21	0.21		0	0	0.21	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	%	79.364	79.364		0	0	79.594	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.116	19.116		0	0	19.179	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
828007	ccv std 1-2 b	ASTM-D2504	CCV	...TA\090211\0902	9/2/2011 5:10:00	1	R42686		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.762	2.762		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Carbon Monoxide	A	%	2.573	2.573		2.5	0	0	0.025	0.1	0	103%	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	%	1.934	1.934		2	0	0	0.025	0.5	0	97%	85	115	0%	
Nitrogen	A	%	2.569	2.569		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Oxygen	A	%	2.613	2.613		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
828008	crql std 2% b	ASTM-D2504	CRQL	...TA\090211\0902	9/2/2011 5:48:00	1	R42686		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.343	0.343		0.3	0	0	0.025	0.1	0	114%	80	120	0%	
Carbon Monoxide	A	%	0.149	0.149		0.14	0	0	0.025	0.1	0	106%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\090211\09021102.D Vial: 1
Acq On : 2 Sep 2011 12:04 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.621	-4.8	0	0.03
2	Nitrogen	2.500	2.569	-2.8	0	0.02
3	Carbon Monoxide	2.500	2.582	-3.3	0	-0.02
4	Methane	2.000	1.963	1.8	0	-0.03
5	Carbon dioxide	2.500	2.762	-10.5	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\090211\09021102.D Vial: 1
Acq On : 2 Sep 2011 12:04 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 13:31:23 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090211\09021102.D Vial: 1
Acq On : 2 Sep 2011 12:04 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 7 12:05 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

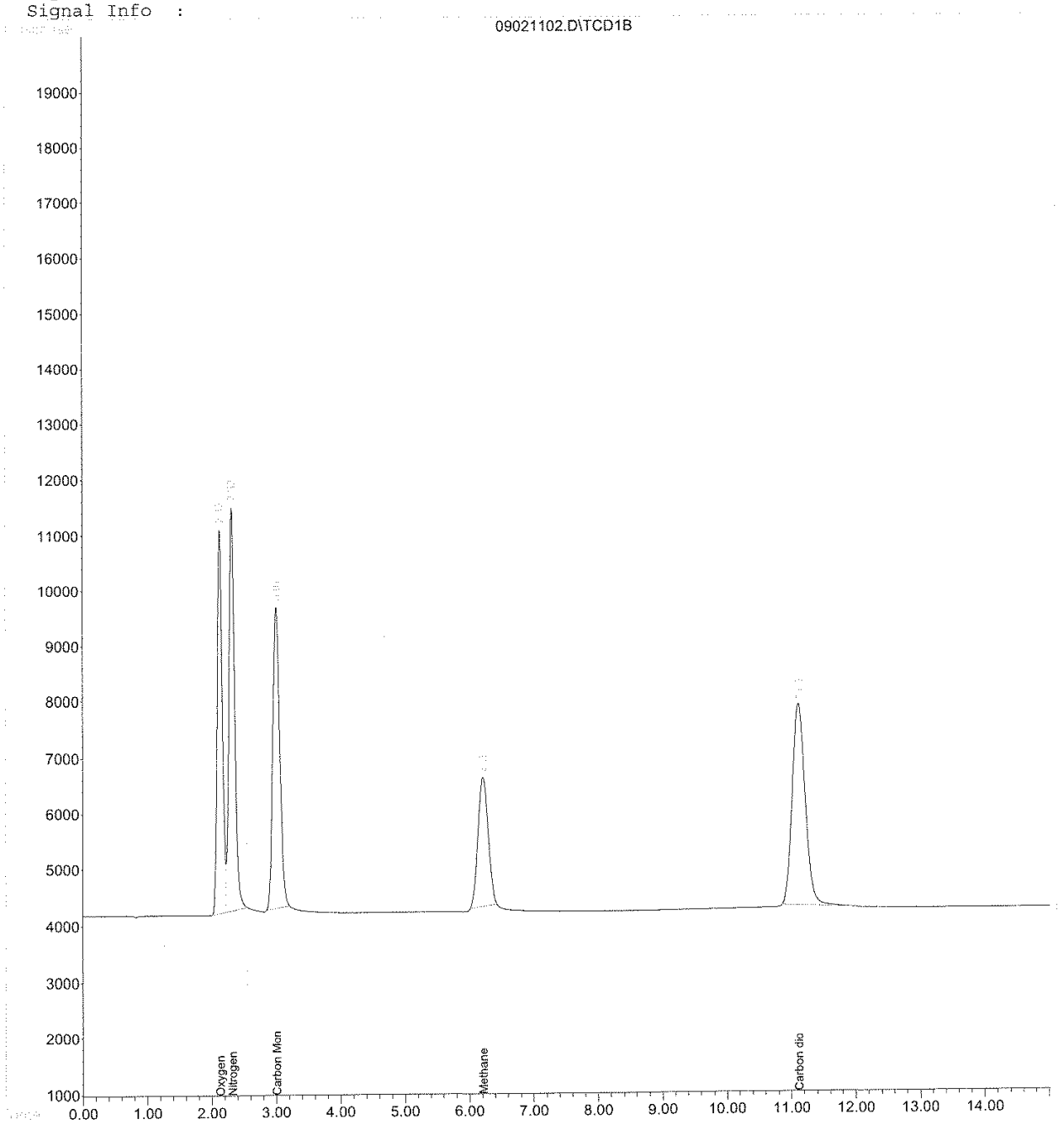
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	375843	2.621 %
2)	Nitrogen	2.32	442588	2.569 %
3)	Carbon Monoxide	3.01	406691	2.582 %
4)	Methane	6.22	252475	1.963 %
5)	Carbon dioxide	11.12	502124	2.762 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090211\09021102.D Vial: 1
Acq On : 2 Sep 2011 12:04 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 7 12:05 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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\090211\09021111.D Vial: 1
Acq On : 2 Sep 2011 5:10 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.613	-4.5	0	0.03
2	Nitrogen	2.500	2.569	-2.8	0	0.02
3	Carbon Monoxide	2.500	2.573	-2.9	0	-0.02
4	Methane	2.000	1.934	3.3	0	-0.03
5	Carbon dioxide	2.500	2.762	-10.5	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\090211\09021111.D Vial: 1
Acq On : 2 Sep 2011 5:10 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 13:32:22 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090211\09021111.D Vial: 1
Acq On : 2 Sep 2011 5:10 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 7 12:06 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

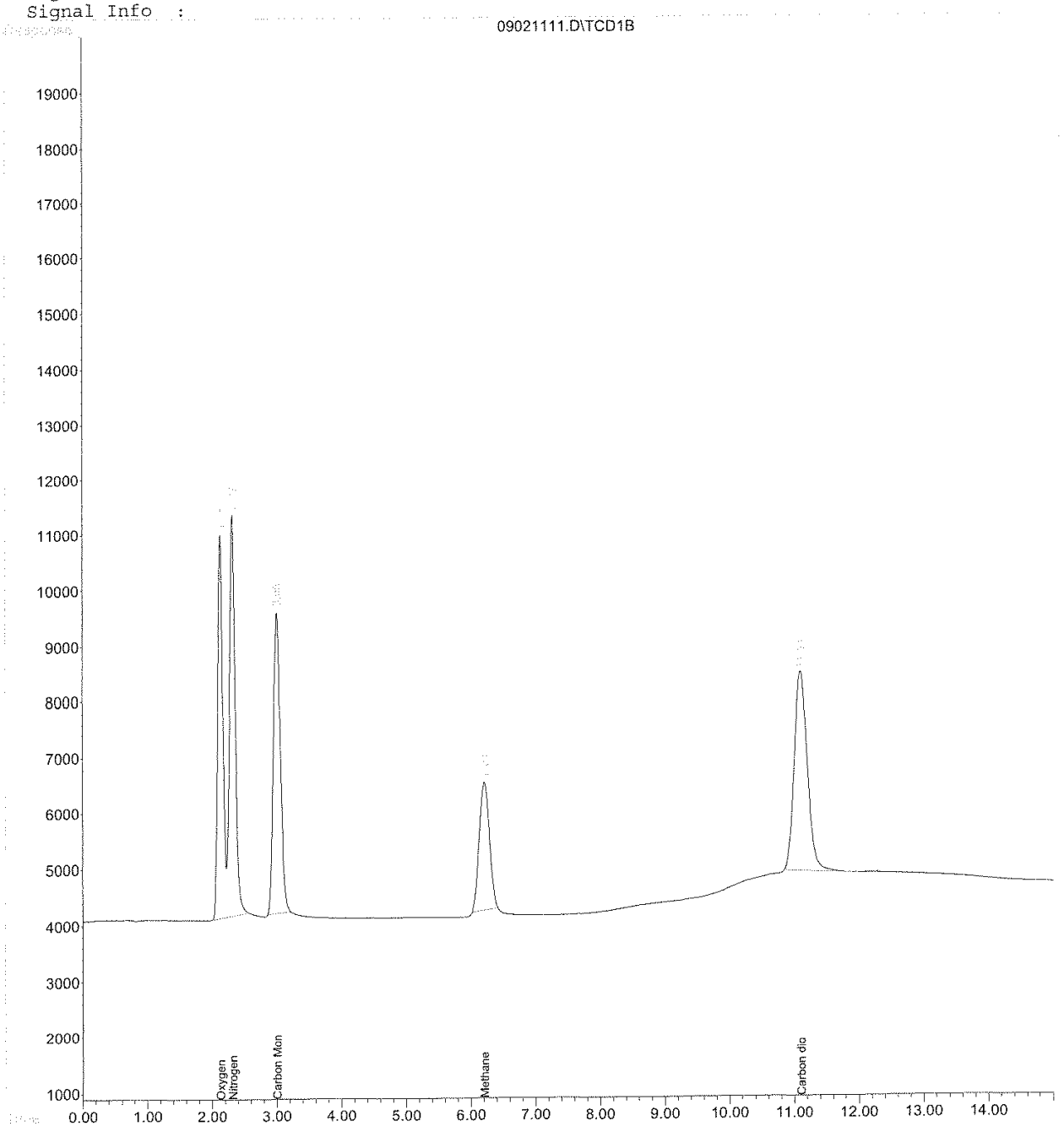
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	374733	2.613 %
2)	Nitrogen	2.32	442574	2.569 %
3)	Carbon Monoxide	3.01	405186	2.573 %
4)	Methane	6.21	248467	1.934 %
5)	Carbon dioxide	11.11	502055	2.762 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090211\09021111.D Vial: 1
Acq On : 2 Sep 2011 5:10 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 7 12:06 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110907A **Run No.:** 43050

Analytical Run Date: 9/7/2011 **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	R43050	9/7/2011 11:54:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43050	9/7/2011 12:26:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43050	9/7/2011 12:48:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43050	9/7/2011 1:15:00 PM	Robert Lynch		
1108899-019b	ASTM-D2504	SAMP	R43050	9/7/2011 1:35:00 PM	Robert Lynch		
1108899-020b	ASTM-D2504	SAMP	R43050	9/7/2011 1:57:00 PM	Robert Lynch		
1108899-021b	ASTM-D2504	SAMP	R43050	9/7/2011 2:18:00 PM	Robert Lynch		
1108899-022b	ASTM-D2504	SAMP	R43050	9/7/2011 2:41:00 PM	Robert Lynch		
1108899-023b	ASTM-D2504	SAMP	R43050	9/7/2011 3:01:00 PM	Robert Lynch		
1108899-024b	ASTM-D2504	SAMP	R43050	9/7/2011 3:20:00 PM	Robert Lynch		
1108899-025b	ASTM-D2504	SAMP	R43050	9/7/2011 3:41:00 PM	Robert Lynch		
1108899-027b	ASTM-D2504	SAMP	R43050	9/7/2011 4:00:00 PM	Robert Lynch		
1108899-028b	ASTM-D2504	SAMP	R43050	9/7/2011 4:24:00 PM	Robert Lynch		
1108899-030b	ASTM-D2504	SAMP	R43050	9/7/2011 4:44:00 PM	Robert Lynch		
1108899-030bdup	ASTM-D2504	DUP	R43050	9/7/2011 5:14:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43050	9/7/2011 5:39:00 PM	Robert Lynch		
1108899-038b	ASTM-D2504	SAMP	R43050	9/7/2011 6:01:00 PM	Robert Lynch		
1108899-026b	ASTM-D2504	SAMP	R43050	9/7/2011 6:20:00 PM	Robert Lynch		
1108899-029b	ASTM-D2504	SAMP	R43050	9/7/2011 6:43:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43050	9/7/2011 8:28:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43050	9/7/2011 8:49:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43050

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837983	mblk	ASTM-D2504	MBLK	.TA\090711\0907	9/7/2011 11:54:0	1	R43050		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	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
837984	ccv std 1-2 a	ASTM-D2504	CCV	.TA\090711\0907	9/7/2011 12:26:0	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.794	2.794		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Carbon Monoxide	A	%	2.662	2.662		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	%	2.128	2.128		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.618	2.618		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.636	2.636		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837985	lcs	ASTM-D2504	LCS	.TA\090711\0907	9/7/2011 12:48:0	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.734	2.734		2.5	0	0	0.025	0.1	0	109%	70	130	0%	
Carbon Monoxide	A	%	2.659	2.659		2.5	0	0	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	%	2.086	2.086		2	0	0	0.025	0.5	0	104%	70	130	0%	
Nitrogen	A	%	2.608	2.608		2.5	0	0	0.025	0.1	0	104%	70	130	0%	
Oxygen	A	%	2.627	2.627		2.5	0	0	0.025	0.1	0	105%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
837996	1108899-030b (Container-1 of 1)	ASTM-D2504	SAMP	.TA\090711\0907	9/7/2011 4:44:00	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	79.761	79.761		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.219	19.219		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
837997	1108899-030bdup	ASTM-D2504	DUP	.TA\090711\0907	9/7/2011 5:14:00	1	R43050		0	837996	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.348	0.348		0	0	0.346	0.025	0.1	0	0%	0	0	1%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	80.331	80.331		0	0	79.761	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	19.334	19.334		0	0	19.219	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
837998	ccv std 1-2 b	ASTM-D2504	CCV	.TA\090711\0907	9/7/2011 5:39:00	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.719	2.719		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Carbon Monoxide	A	%	2.74	2.74		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	%	2.013	2.013		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	%	2.602	2.602		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	%	2.617	2.617		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838001	1108899-029b (Container-1 of 1)	ASTM-D2504	SAMP	.TA\090711\0907	9/7/2011 6:43:00	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	79.396	79.396		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.916	19.916		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
838002	ccv std 1-2 b	ASTM-D2504	CCV	.TA\090711\0907	9/7/2011 8:28:00	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.756	2.756		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Carbon Monoxide	A	%	2.729	2.729		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	%	2.127	2.127		2	0	0	0.025	0.5	0	106%	85	115	0%	
Nitrogen	A	%	2.626	2.626		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.638	2.638		2.5	0	0	0.025	0.1	0	106%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838003	crql std 2% b	ASTM-D2504	CRQL	.TA\090711\0907	9/7/2011 8:49:00	1	R43050		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.348	0.348		0.3	0	0	0.025	0.1	0	116%	80	120	0%	
Carbon Monoxide	A	%	0.135	0.135		0.14	0	0	0.025	0.1	0	96%	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	%	0.107	0.107		0.09	0	0	0.025	0.5	0	119%	80	120	0%	
Nitrogen	A	%	1.362	1.362		1.39	0	0	0.025	0.1	0	98%	80	120	0%	
Oxygen	A	%	0.069	0.069		0.08	0	0	0.025	0.1	0	86%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\090711\09071102.D Vial: 1
Acq On : 7 Sep 2011 12:26 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.636	-5.4	0	0.04
2	Nitrogen	2.500	2.618	-4.7	0	0.03
3	Carbon Monoxide	2.500	2.662	-6.5	0	0.00
4	Methane	2.000	2.128	-6.4	0	-0.01
5	Carbon dioxide	2.500	2.794	-11.8	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\090711\09071102.D Vial: 1
Acq On : 7 Sep 2011 12:26 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 13:34:02 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090711\09071102.D Vial: 1
Acq On : 7 Sep 2011 12:26 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:33 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

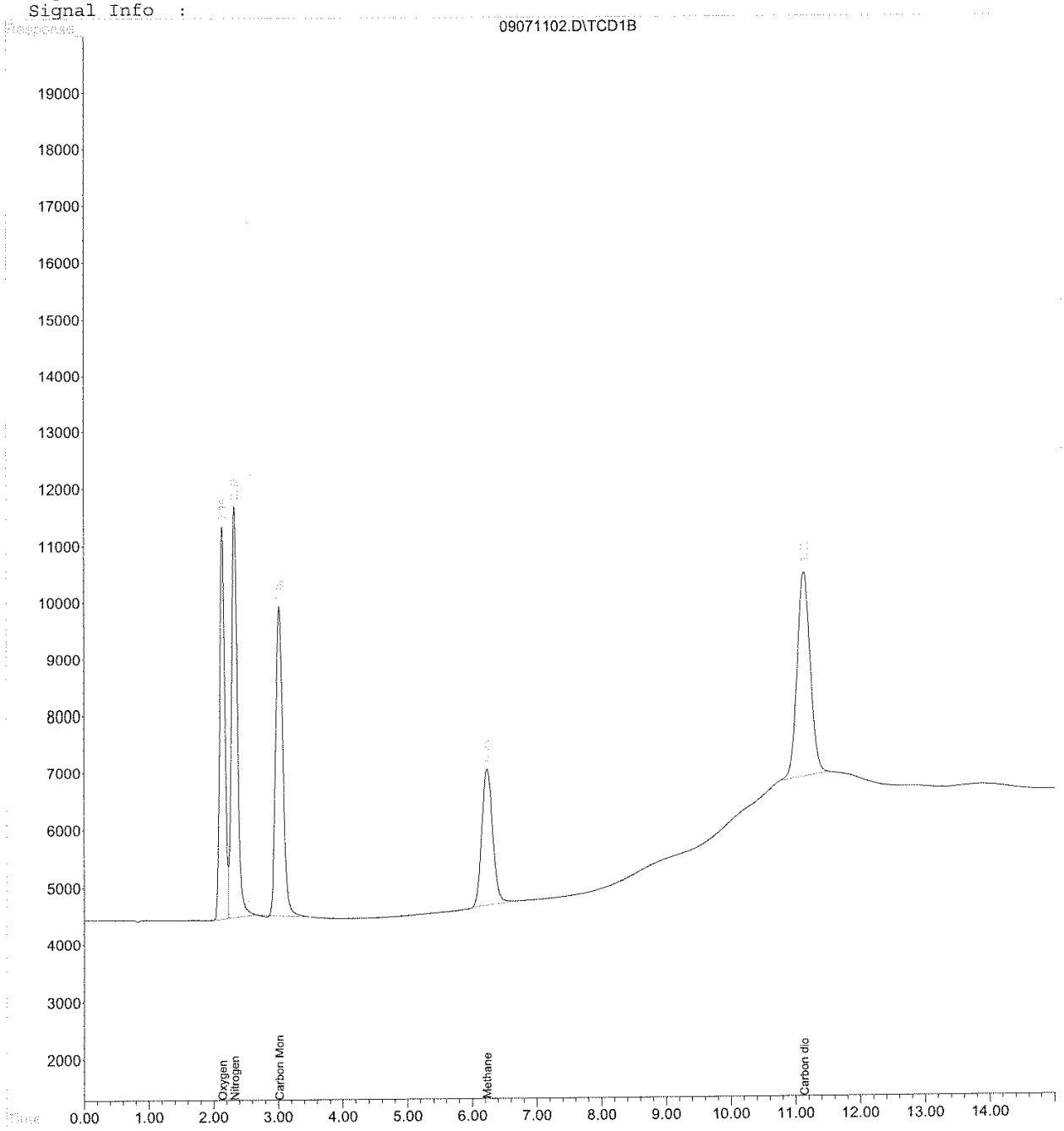
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	377916	2.636 %
2)	Nitrogen	2.33	451062	2.618 %
3)	Carbon Monoxide	3.02	419262	2.662 %
4)	Methane	6.23	275671	2.128 %
5)	Carbon dioxide	11.13	508141	2.794 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090711\09071102.D Vial: 1
Acq On : 7 Sep 2011 12:26 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:33 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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\090711\09071116.D Vial: 1
Acq On : 7 Sep 2011 5:39 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.617	-4.7	0	0.04
2	Nitrogen	2.500	2.602	-4.1	0	0.02
3	Carbon Monoxide	2.500	2.740	-9.6	0	-0.01
4	Methane	2.000	2.013	-0.6	0	-0.02
5	Carbon dioxide	2.500	2.719	-8.8	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\090711\09071116.D Vial: 1
Acq On : 7 Sep 2011 5:39 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 13:34:57 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090711\09071116.D Vial: 1
Acq On : 7 Sep 2011 5:39 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 17:06 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 23 17:40:44 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

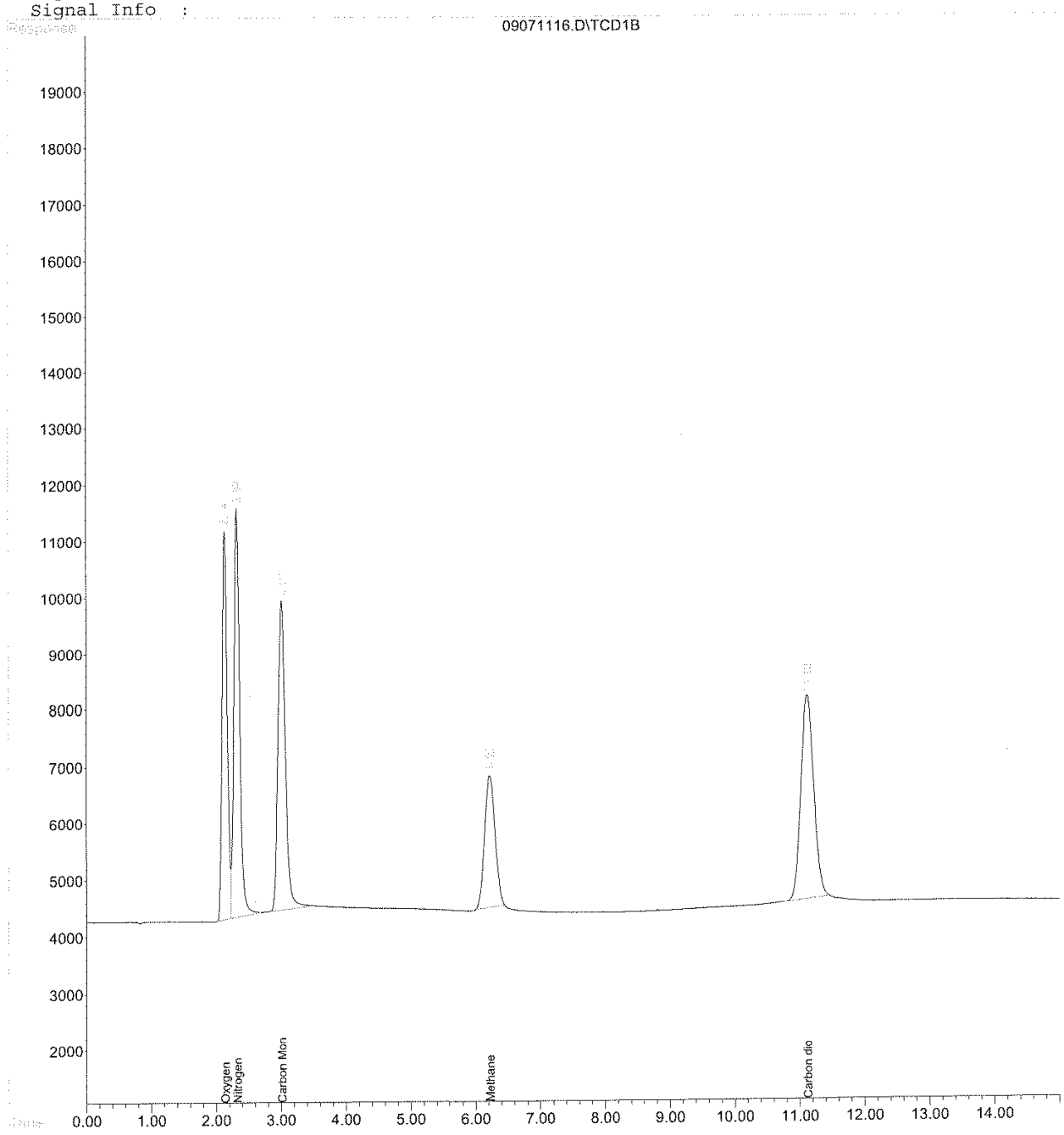
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	375241	2.617 %
2)	Nitrogen	2.32	448321	2.602 %
3)	Carbon Monoxide	3.01	431585	2.740 %
4)	Methane	6.22	259476	2.013 %
5)	Carbon dioxide	11.12	493992	2.719 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090711\09071116.D Vial: 1
Acq On : 7 Sep 2011 5:39 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 17:06 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Sep 23 17:40:44 2011
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\090711\09071120.D Vial: 1
Acq On : 7 Sep 2011 8:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.638	-5.5	0	0.04
2	Nitrogen	2.500	2.626	-5.0	0	0.03
3	Carbon Monoxide	2.500	2.729	-9.2	0	-0.01
4	Methane	2.000	2.127	-6.3	0	-0.02
5	Carbon dioxide	2.500	2.756	-10.2	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\090711\09071120.D Vial: 1
Acq On : 7 Sep 2011 8:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 13:35:39 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090711\09071120.D Vial: 1
Acq On : 7 Sep 2011 8:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:34 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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	378211	2.638 %
2)	Nitrogen	2.33	452453	2.626 %
3)	Carbon Monoxide	3.01	429770	2.729 %
4)	Methane	6.22	275477	2.127 %
5)	Carbon dioxide	11.12	501031	2.756 %

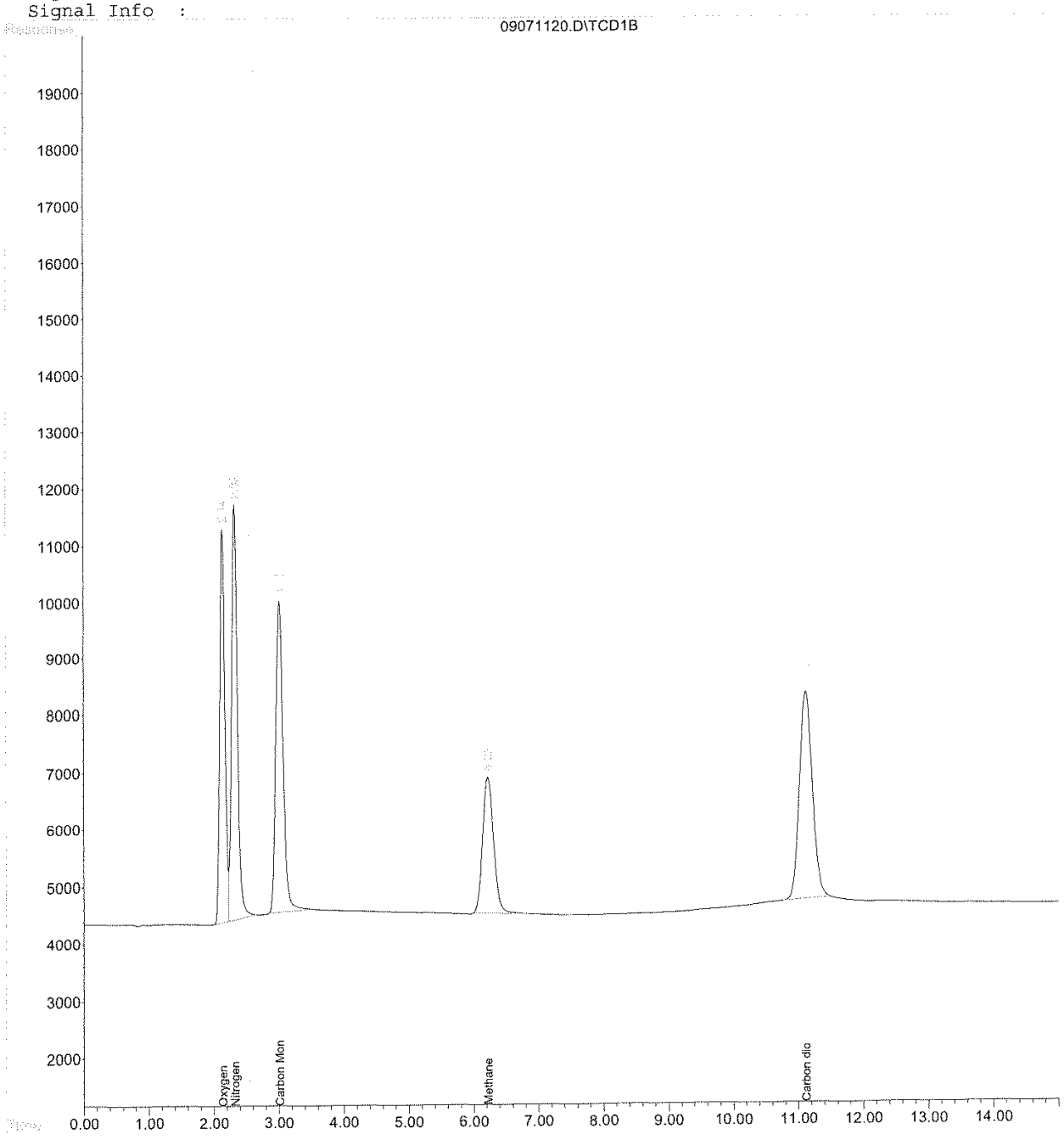
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\090711\09071120.D Vial: 1
Acq On : 7 Sep 2011 8:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:34 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110913A **Run No.:** 43051

Analytical Run Date: 9/13/2011 **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	R43051	9/13/2011 11:33:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43051	9/13/2011 11:52:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43051	9/13/2011 12:14:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43051	9/13/2011 1:16:00 PM	Robert Lynch		
1108899-031b	ASTM-D2504	SAMP	R43051	9/13/2011 2:00:00 PM	Robert Lynch		
1108899-032b	ASTM-D2504	SAMP	R43051	9/13/2011 2:36:00 PM	Robert Lynch		
1108899-033b	ASTM-D2504	SAMP	R43051	9/13/2011 2:55:00 PM	Robert Lynch		
1108899-034b	ASTM-D2504	SAMP	R43051	9/13/2011 3:33:00 PM	Robert Lynch		
1108899-035b	ASTM-D2504	SAMP	R43051	9/13/2011 3:57:00 PM	Robert Lynch		
1108899-036b	ASTM-D2504	SAMP	R43051	9/13/2011 4:16:00 PM	Robert Lynch		
1108899-001b	ASTM-D2504	SAMP	R43051	9/13/2011 4:39:00 PM	Robert Lynch		
1108899-002b	ASTM-D2504	SAMP	R43051	9/13/2011 5:03:00 PM	Robert Lynch		
1108899-003b	ASTM-D2504	SAMP	R43051	9/13/2011 5:24:00 PM	Robert Lynch		
1108899-004b	ASTM-D2504	SAMP	R43051	9/13/2011 6:00:00 PM	Robert Lynch		
1108899-004bdup	ASTM-D2504	DUP	R43051	9/13/2011 6:23:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43051	9/13/2011 6:44:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43051	9/13/2011 7:15:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43051

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838004	mblk	ASTM-D2504	MBLK	...TA\091311\0913	9/13/2011 11:33:	1	R43051		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	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
838005	ccv std 1-2 a	ASTM-D2504	CCV	...TA\091311\0913	9/13/2011 11:52:	1	R43051		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.837	2.837		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Carbon Monoxide	A	%	2.686	2.686		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	%	2.021	2.021		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	%	2.622	2.622		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.614	2.614		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838006	lcs	ASTM-D2504	LCS	...TA\091311\0913	9/13/2011 12:14:	1	R43051		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.791	2.791		2.5	0	0	0.025	0.1	0	112%	70	130	0%	
Carbon Monoxide	A	%	2.636	2.636		2.5	0	0	0.025	0.1	0	105%	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	%	2.039	2.039		2	0	0	0.025	0.5	0	102%	70	130	0%	
Nitrogen	A	%	2.617	2.617		2.5	0	0	0.025	0.1	0	105%	70	130	0%	
Oxygen	A	%	2.616	2.616		2.5	0	0	0.025	0.1	0	105%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838017	1108899-004b (Container-1 of 1)	ASTM-D2504	SAMP	‹TA\091311\0913	9/13/2011 6:00:0	1	R43051		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.356	20.356		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
838018	1108899-004bdup	ASTM-D2504	DUP	‹TA\091311\0913	9/13/2011 6:23:0	1	R43051		0	838017	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.228	0.228		0	0	0.217	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	%	78.162	78.162		0	0	78.723	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	20.811	20.811		0	0	20.356	0.025	0.1	0	0%	0	0	2%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838019	ccv std 1-2 b	ASTM-D2504	CCV	‹TA\091311\0913	9/13/2011 6:44:0	1	R43051		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.74	2.74		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Carbon Monoxide	A	%	2.653	2.653		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	%	2.014	2.014		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	%	2.603	2.603		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	%	2.608	2.608		2.5	0	0	0.025	0.1	0	104%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838020	crql std 2% b	ASTM-D2504	CRQL	‹TA\091311\0913	9/13/2011 7:15:0	1	R43051		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.353	0.353		0.3	0	0	0.025	0.1	0	118%	80	120	0%	
Carbon Monoxide	A	%	0.143	0.143		0.14	0	0	0.025	0.1	0	102%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091311\09131102.D Vial: 1
Acq On : 13 Sep 2011 11:52 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.614	-4.6	0	0.03
2	Nitrogen	2.500	2.622	-4.9	0	0.02
3	Carbon Monoxide	2.500	2.686	-7.4	0	-0.02
4	Methane	2.000	2.021	-1.0	0	-0.03
5	Carbon dioxide	2.500	2.837	-13.5	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091311\09131102.D Vial: 1
Acq On : 13 Sep 2011 11:52 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 14:31:25 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091311\09131102.D Vial: 1
Acq On : 13 Sep 2011 11:52 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:32 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

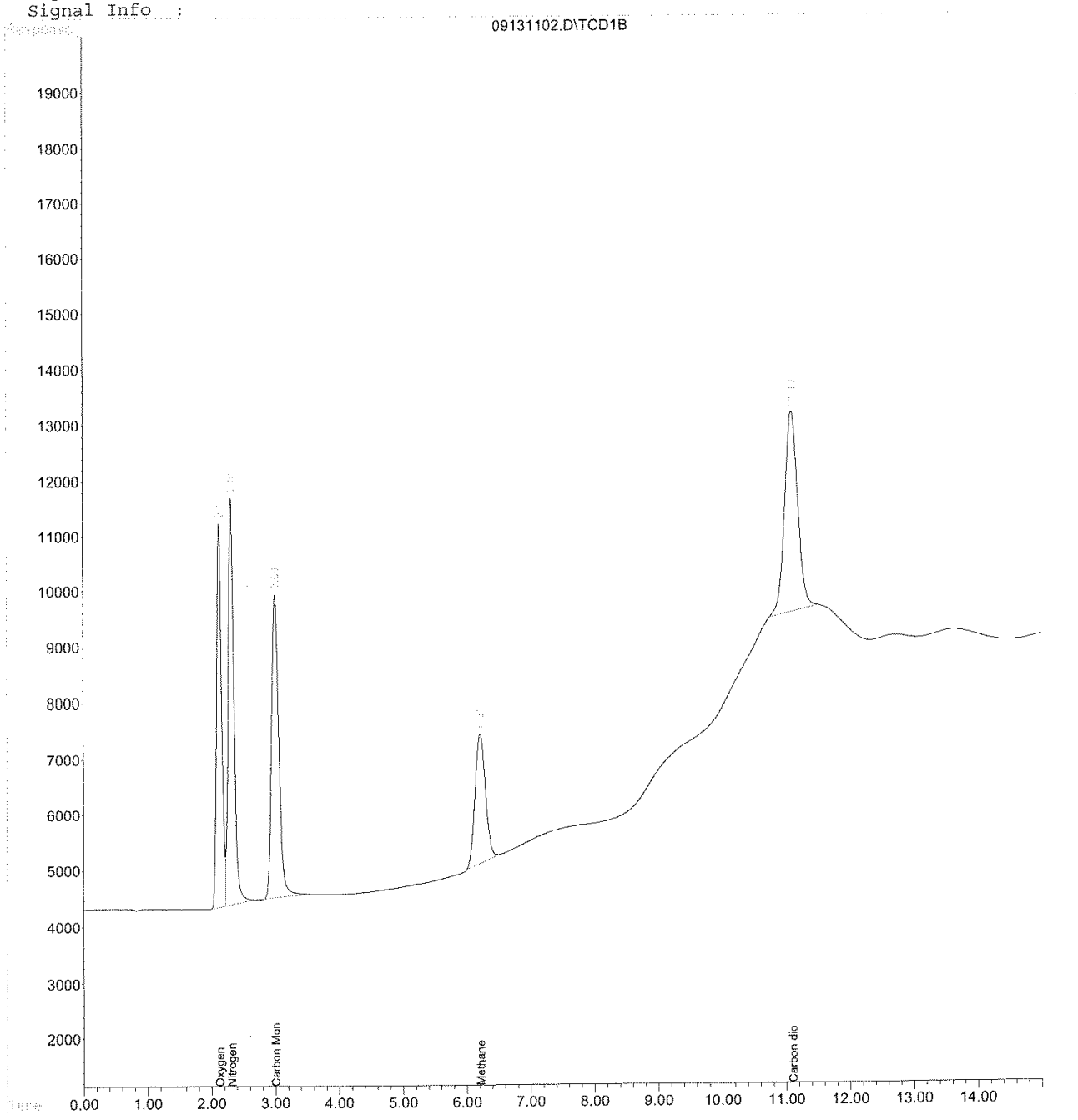
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	374874	2.614 %
2)	Nitrogen	2.32	451610	2.622 %
3)	Carbon Monoxide	3.01	423111	2.686 %
4)	Methane	6.22	260664	2.021 %
5)	Carbon dioxide	11.11	516227	2.837 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091311\09131102.D Vial: 1
Acq On : 13 Sep 2011 11:52 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:32 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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\091311\09131116.D Vial: 1
Acq On : 13 Sep 2011 6:44 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.608	-4.3	0	0.03
2	Nitrogen	2.500	2.603	-4.1	0	0.01
3	Carbon Monoxide	2.500	2.653	-6.1	0	-0.03
4	Methane	2.000	2.014	-0.7	0	-0.05
5	Carbon dioxide	2.500	2.740	-9.6	0	-0.09

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091311\09131116.D Vial: 1
Acq On : 13 Sep 2011 6:44 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 14:32:25 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091311\09131116.D Vial: 1
Acq On : 13 Sep 2011 6:44 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:33 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

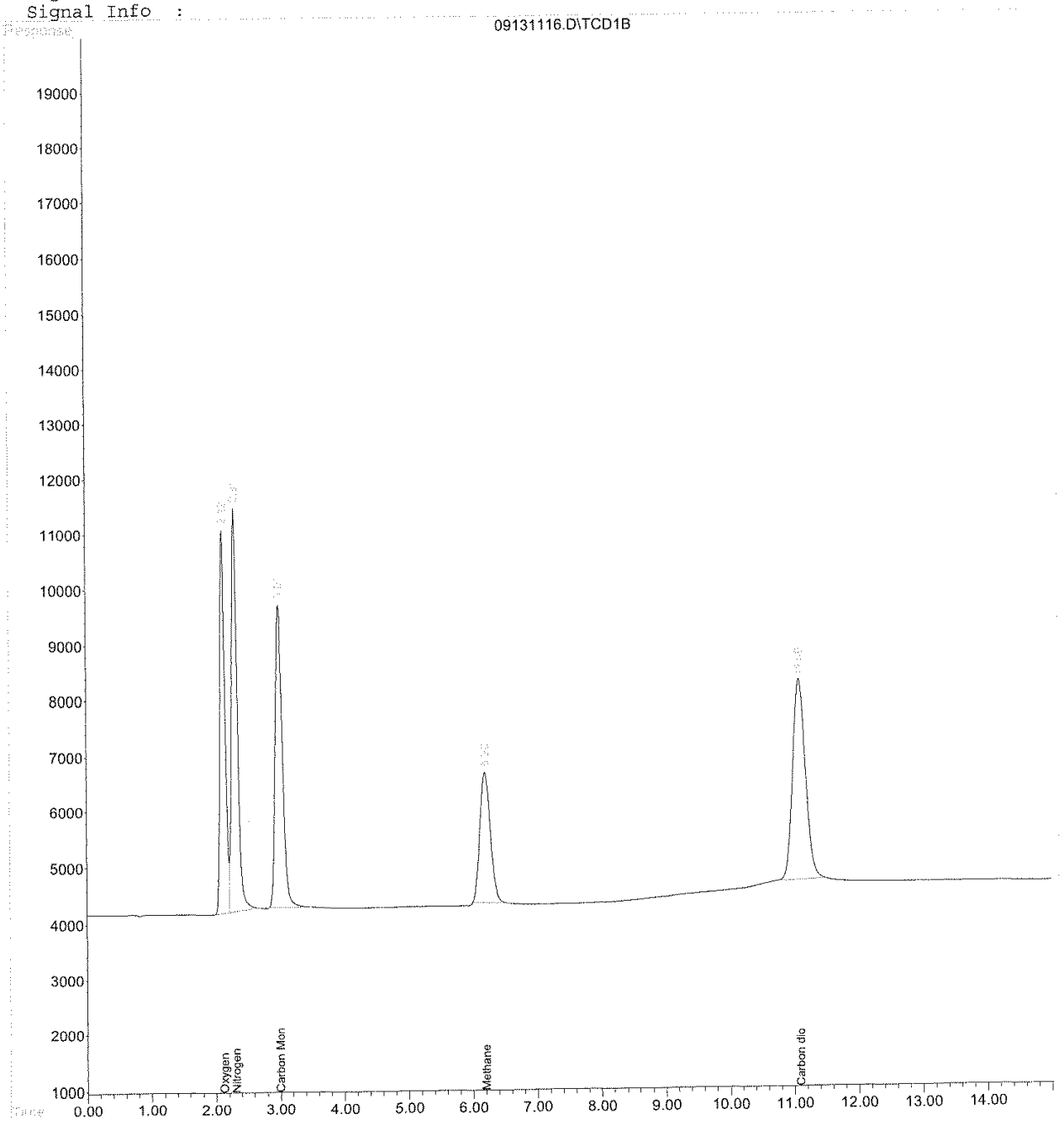
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	373880	2.608 %
2)	Nitrogen	2.31	448431	2.603 %
3)	Carbon Monoxide	3.00	417867	2.653 %
4)	Methane	6.20	259620	2.014 %
5)	Carbon dioxide	11.09f	498020	2.740 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091311\09131116.D Vial: 1
Acq On : 13 Sep 2011 6:44 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:33 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110914A **Run No.:** 43052

Analytical Run Date: 9/14/2011 **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	R43052	9/14/2011 12:05:00 PM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43052	9/14/2011 12:28:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R43052	9/14/2011 12:48:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43052	9/14/2011 1:23:00 PM	Robert Lynch		
1108899-005b	ASTM-D2504	SAMP	R43052	9/14/2011 1:48:00 PM	Robert Lynch		
1108899-006b	ASTM-D2504	SAMP	R43052	9/14/2011 2:07:00 PM	Robert Lynch		
1108899-007b	ASTM-D2504	SAMP	R43052	9/14/2011 2:56:00 PM	Robert Lynch		
1108899-008b	ASTM-D2504	SAMP	R43052	9/14/2011 3:17:00 PM	Robert Lynch		
1108899-009b	ASTM-D2504	SAMP	R43052	9/14/2011 3:48:00 PM	Robert Lynch		
1108899-010b	ASTM-D2504	SAMP	R43052	9/14/2011 4:07:00 PM	Robert Lynch		
1108899-011b	ASTM-D2504	SAMP	R43052	9/14/2011 4:39:00 PM	Robert Lynch		
1108899-012b	ASTM-D2504	SAMP	R43052	9/14/2011 5:06:00 PM	Robert Lynch		
1108899-013b	ASTM-D2504	SAMP	R43052	9/14/2011 5:31:00 PM	Robert Lynch		
1108899-014b	ASTM-D2504	SAMP	R43052	9/14/2011 5:55:00 PM	Robert Lynch		
1108899-014bdup	ASTM-D2504	DUP	R43052	9/14/2011 6:19:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43052	9/14/2011 7:28:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43052	9/14/2011 7:48:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43052

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838021	mblk	ASTM-D2504	MBLK	‹TA\091411\0914	9/14/2011 12:05:	1	R43052		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
838022	ccv std 1-2 a	ASTM-D2504	CCV	‹TA\091411\0914	9/14/2011 12:28:	1	R43052		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.836	2.836		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Carbon Monoxide	A	%	2.694	2.694		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.145	2.145		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.587	2.587		2.5	0	0	0.025	0.1	0	103%	85	115	0%	
Oxygen	A	%	2.613	2.613		2.5	0	0	0.025	0.1	0	105%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838023	lcs	ASTM-D2504	LCS	‹TA\091411\0914	9/14/2011 12:48:	1	R43052		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.825	2.825		2.5	0	0	0.025	0.1	0	113%	70	130	0%	
Carbon Monoxide	A	%	2.618	2.618		2.5	0	0	0.025	0.1	0	105%	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	%	2.203	2.203		2	0	0	0.025	0.5	0	110%	70	130	0%	
Nitrogen	A	%	2.585	2.585		2.5	0	0	0.025	0.1	0	103%	70	130	0%	
Oxygen	A	%	2.607	2.607		2.5	0	0	0.025	0.1	0	104%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838034	1108899-014b (Container-1 of 1)	ASTM-D2504	SAMP	‹TA\091411\0914	9/14/2011 5:55:0	1	R43052		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	13.349	13.349		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
838035	1108899-014bdup	ASTM-D2504	DUP	‹TA\091411\0914	9/14/2011 6:19:0	1	R43052		0	838034	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	3.051	3.051		0	0	3.169	0.025	0.1	0	0%	0	0	4%	
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	%	82.146	82.146		0	0	83.427	0.025	0.1	0	0%	0	0	2%	
Oxygen	A	%	14.691	14.691		0	0	13.349	0.025	0.1	0	0%	0	0	10%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838036	ccv std 1-2 b	ASTM-D2504	CCV	‹TA\091411\0914	9/14/2011 7:28:0	1	R43052		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.77	2.77		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Carbon Monoxide	A	%	2.578	2.578		2.5	0	0	0.025	0.1	0	103%	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	%	2.131	2.131		2	0	0	0.025	0.5	0	107%	85	115	0%	
Nitrogen	A	%	2.803	2.803		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	%	2.64	2.64		2.5	0	0	0.025	0.1	0	106%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838037	crql std 2% b	ASTM-D2504	CRQL	‹TA\091411\0914	9/14/2011 7:48:0	1	R43052		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.354	0.354		0.3	0	0	0.025	0.1	0	118%	80	120	0%	
Carbon Monoxide	A	%	0.152	0.152		0.14	0	0	0.025	0.1	0	109%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091411\09141102.D Vial: 1
Acq On : 14 Sep 2011 12:28 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Multiple Level Calibration

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)
1	Oxygen	2.500	2.613	-4.5	0	0.03
2	Nitrogen	2.500	2.587	-3.5	0	0.02
3	Carbon Monoxide	2.500	2.694	-7.8	0	-0.02
4	Methane	2.000	2.145	-7.3	0	-0.04
5	Carbon dioxide	2.500	2.836	-13.4	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091411\09141102.D Vial: 1
Acq On : 14 Sep 2011 12:28 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 14:33:47 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091411\09141102.D Vial: 1
Acq On : 14 Sep 2011 12:28 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:25 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

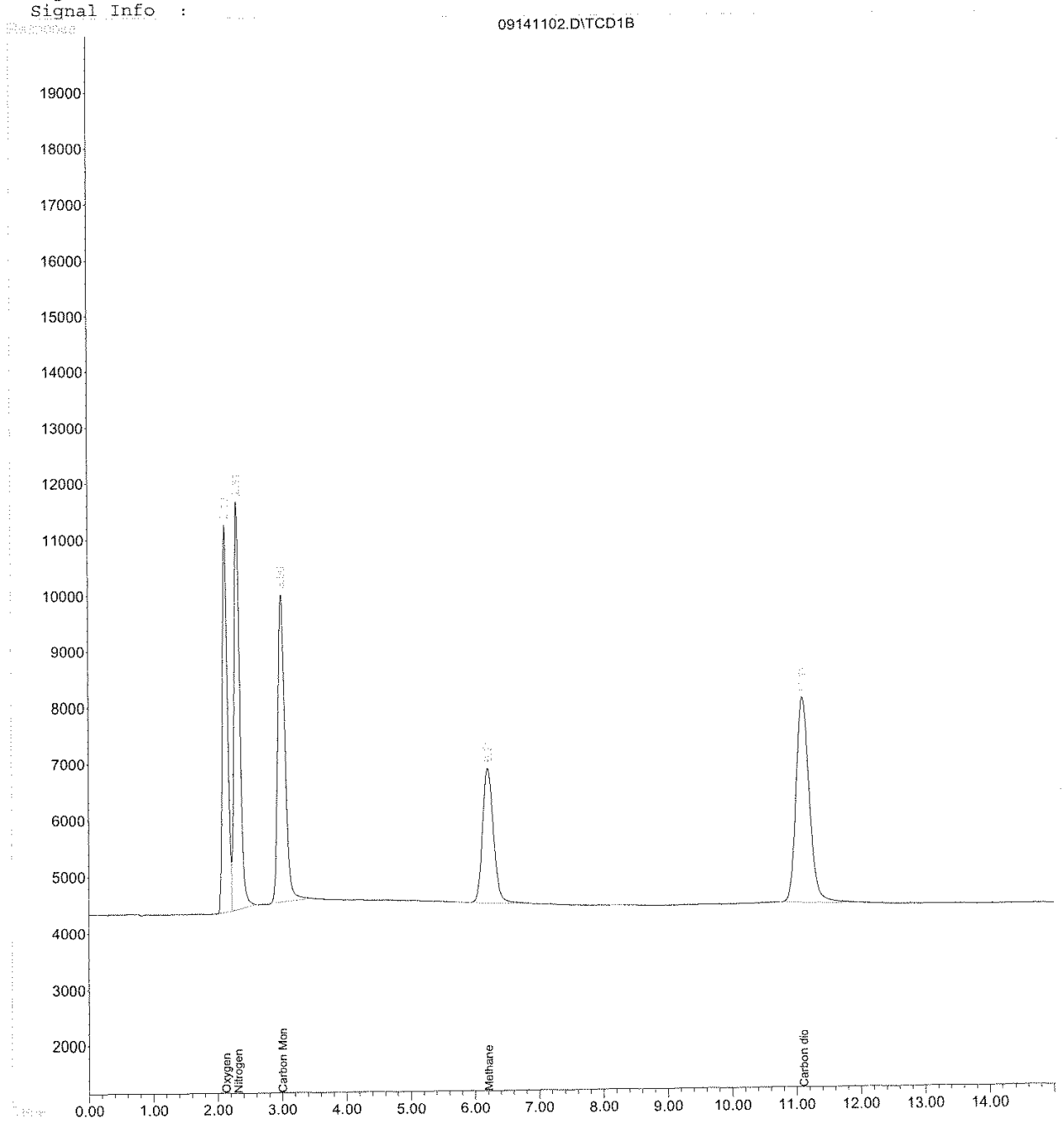
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	374608	2.613 %
2)	Nitrogen	2.32	445717	2.587 %
3)	Carbon Monoxide	3.00	424291	2.694 %
4)	Methane	6.21	278002	2.145 %
5)	Carbon dioxide	11.11	516143	2.836 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091411\09141102.D Vial: 1
Acq On : 14 Sep 2011 12:28 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:25 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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\091411\09141116.D Vial: 1
Acq On : 14 Sep 2011 7:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.640	-5.6	0	0.03
2	Nitrogen	2.500	2.803	-12.1	0	0.02
3	Carbon Monoxide	2.500	2.578	-3.1	0	-0.02
4	Methane	2.000	2.131	-6.5	0	-0.04
5	Carbon dioxide	2.500	2.770	-10.8	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091411\09141116.D Vial: 1
Acq On : 14 Sep 2011 7:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 14:34:54 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091411\09141116.D Vial: 1
Acq On : 14 Sep 2011 7:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

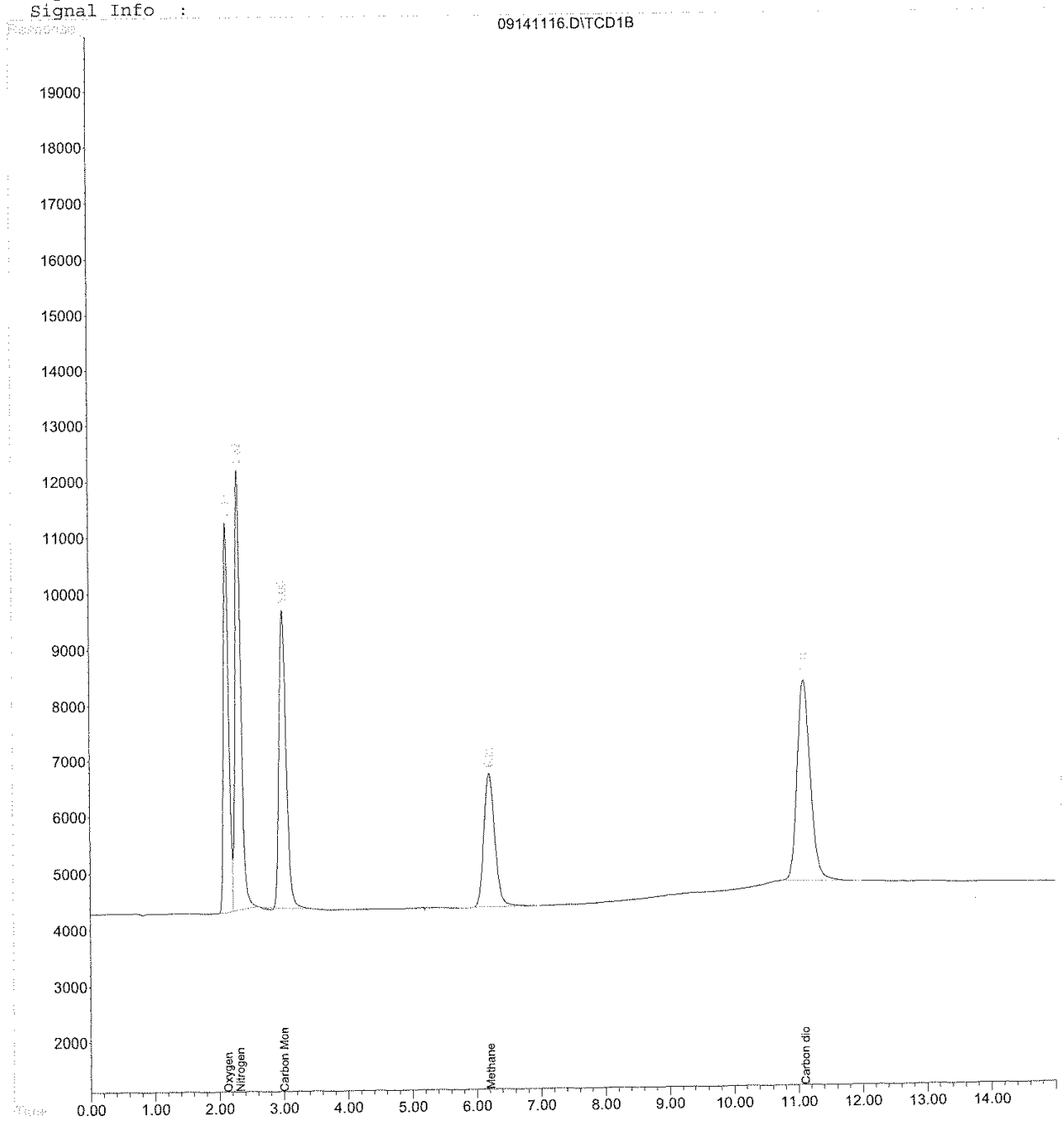
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	378504	2.640 %
2)	Nitrogen	2.32	482845	2.803 %
3)	Carbon Monoxide	3.01	406030	2.578 %
4)	Methane	6.21	276080	2.131 %
5)	Carbon dioxide	11.11	503632	2.770 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091411\09141116.D Vial: 1
Acq On : 14 Sep 2011 7:28 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:28 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110915A **Run No.:** 43053

Analytical Run Date: 9/15/2011 **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
mblk091511tcd	ASTM-D2504	MBLK	R43053	9/15/2011 11:37:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R43053	9/15/2011 12:09:00 PM	Robert Lynch		
LCS091511tcd	ASTM-D2504	LCS	R43053	9/15/2011 2:04:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R43053	9/15/2011 2:29:00 PM	Robert Lynch		
1108899-015b	ASTM-D2504	SAMP	R43053	9/15/2011 2:50:00 PM	Robert Lynch		
1108899-040b	ASTM-D2504	SAMP	R43053	9/15/2011 3:12:00 PM	Robert Lynch		
1108899-041b	ASTM-D2504	SAMP	R43053	9/15/2011 3:32:00 PM	Robert Lynch		
1108899-042b	ASTM-D2504	SAMP	R43053	9/15/2011 4:11:00 PM	Robert Lynch		
1108899-043b	ASTM-D2504	SAMP	R43053	9/15/2011 4:31:00 PM	Robert Lynch		
1108899-043bdup	ASTM-D2504	DUP	R43053	9/15/2011 4:51:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R43053	9/15/2011 5:18:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R43053	9/15/2011 6:00:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 43053

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838038	mblk091511tcd	ASTM-D2504	MBLK	...TA\091511\0915	9/15/2011 11:37:	1	R43053		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	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
838039	ccv std 1-2 a	ASTM-D2504	CCV	...TA\091511\0915	9/15/2011 12:09:	1	R43053		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.708	2.708		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Carbon Monoxide	A	%	2.541	2.541		2.5	0	0	0.025	0.1	0	102%	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	%	2.109	2.109		2	0	0	0.025	0.5	0	105%	85	115	0%	
Nitrogen	A	%	2.457	2.457		2.5	0	0	0.025	0.1	0	98%	85	115	0%	
Oxygen	A	%	2.226	2.226		2.5	0	0	0.025	0.1	0	89%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838040	LCS091511tcd	ASTM-D2504	LCS	...TA\091511\0915	9/15/2011 2:04:0	1	R43053		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.742	2.742		2.5	0	0	0.025	0.1	0	110%	70	130	0%	
Carbon Monoxide	A	%	2.58	2.58		2.5	0	0	0.025	0.1	0	103%	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	%	2.018	2.018		2	0	0	0.025	0.5	0	101%	70	130	0%	
Nitrogen	A	%	2.599	2.599		2.5	0	0	0.025	0.1	0	104%	70	130	0%	
Oxygen	A	%	2.29	2.29		2.5	0	0	0.025	0.1	0	92%	70	130	0%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838046	1108899-043b (Container-1 of 1)	ASTM-D2504	SAMP	...TA\091511\0915	9/15/2011 4:31:0	1	R43053		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	7.063	7.063		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
838047	1108899-043bdup	ASTM-D2504	DUP	...TA\091511\0915	9/15/2011 4:51:0	1	R43053		0	838046	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	4.732	4.732		0	0	4.73	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0.192	0.192		0	0	0.193	0.025	0.1	0	0%	0	0	1%	
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	%	0.016	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	88.061	88.061		0	0	88.128	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	7.06	7.06		0	0	7.063	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
838048	ccv std 1-2 b	ASTM-D2504	CCV	...TA\091511\0915	9/15/2011 5:18:0	1	R43053		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.675	2.675		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Carbon Monoxide	A	%	2.492	2.492		2.5	0	0	0.025	0.1	0	100%	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	%	2.08	2.08		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.644	2.644		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.263	2.263		2.5	0	0	0.025	0.1	0	91%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
838049	crql std 2% b	ASTM-D2504	CRQL	...TA\091511\0915	9/15/2011 6:00:0	1	R43053		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.341	0.341		0.3	0	0	0.025	0.1	0	114%	80	120	0%	
Carbon Monoxide	A	%	0.145	0.145		0.14	0	0	0.025	0.1	0	104%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\091511\09151102.D
Acq On : 15 Sep 2011 12:09 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.226	11.0	0	0.04
2	Nitrogen	2.500	2.457	1.7	0	0.02
3	Carbon Monoxide	2.500	2.541	-1.6	0	-0.01
4	Methane	2.000	2.109	-5.4	0	-0.02
5	Carbon dioxide	2.500	2.708	-8.3	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091511\09151102.D
Acq On : 15 Sep 2011 12:09 pm
Sample : ccv std 1-2 a
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 14:36:36 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091511\09151102.D Vial: 1
Acq On : 15 Sep 2011 12:09 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:30 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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	318748	2.226 %
2)	Nitrogen	2.32	423304	2.457 %
3)	Carbon Monoxide	3.01	400269	2.541 %
4)	Methane	6.22	272933	2.109 %
5)	Carbon dioxide	11.13	492057	2.708 %

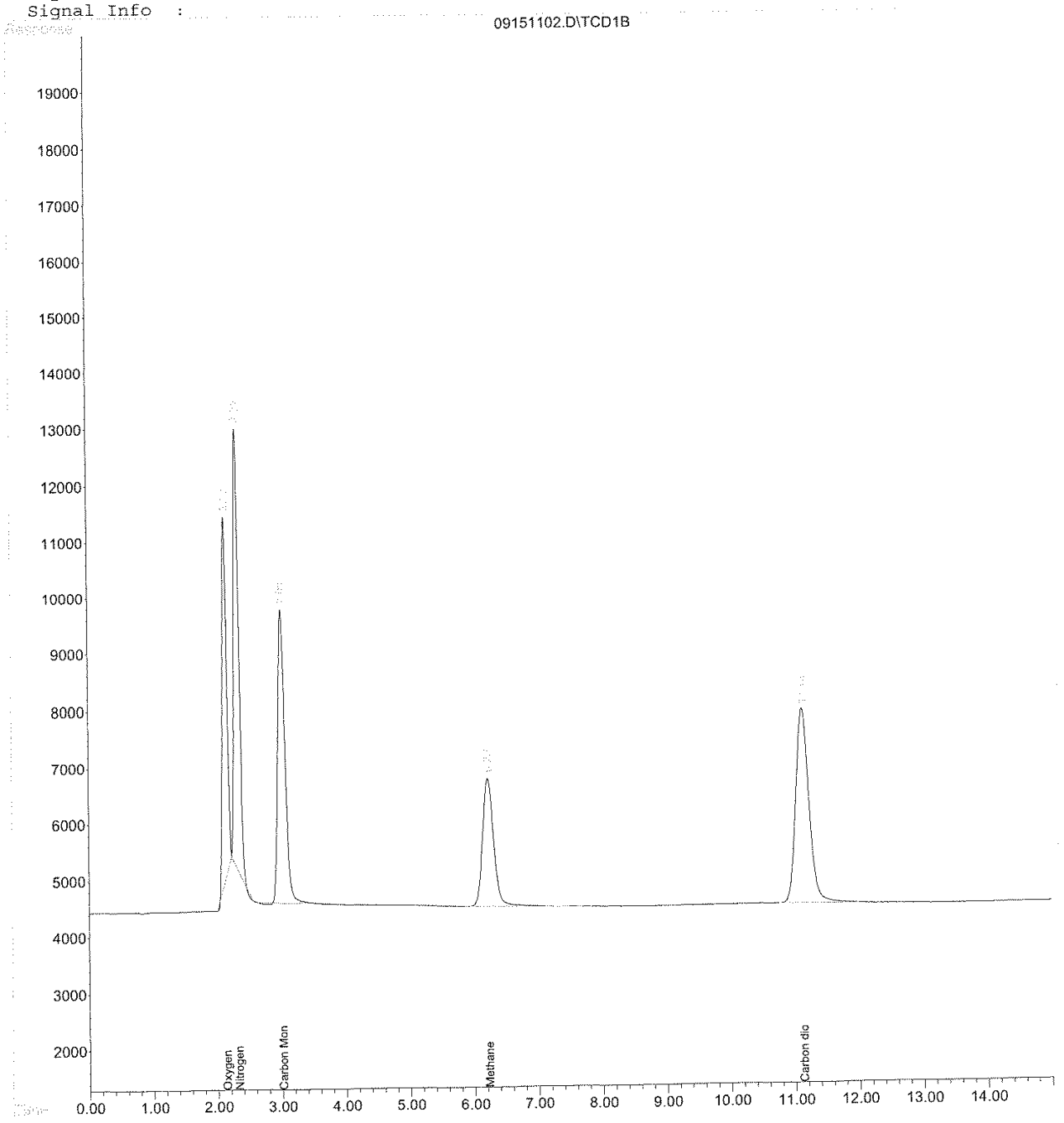
(f)=RT Delta > 1/2 Window (m)=manual int.
09151102.D 030511.M Thu Oct 20 14:36:31 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091511\09151102.D Vial: 1
Acq On : 15 Sep 2011 12:09 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:30 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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\091511\09151111.D
Acq On : 15 Sep 2011 5:18 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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	2.263	9.5	0	0.04
2	Nitrogen	2.500	2.644	-5.8	0	0.02
3	Carbon Monoxide	2.500	2.492	0.3	0	-0.01
4	Methane	2.000	2.080	-4.0	0	-0.02
5	Carbon dioxide	2.500	2.675	-7.0	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\091511\09151111.D
Acq On : 15 Sep 2011 5:18 pm
Sample : ccv std 1-2 b
Misc : CCV ASTM-D2504
IntFile : EVENTS.E

Vial: 1
Operator:
Inst : GC/TCD
Multiplr: 1.00

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
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 030511.M Thu Oct 20 14:37:18 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091511\09151111.D Vial: 1
Acq On : 15 Sep 2011 5:18 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 23 16:30 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

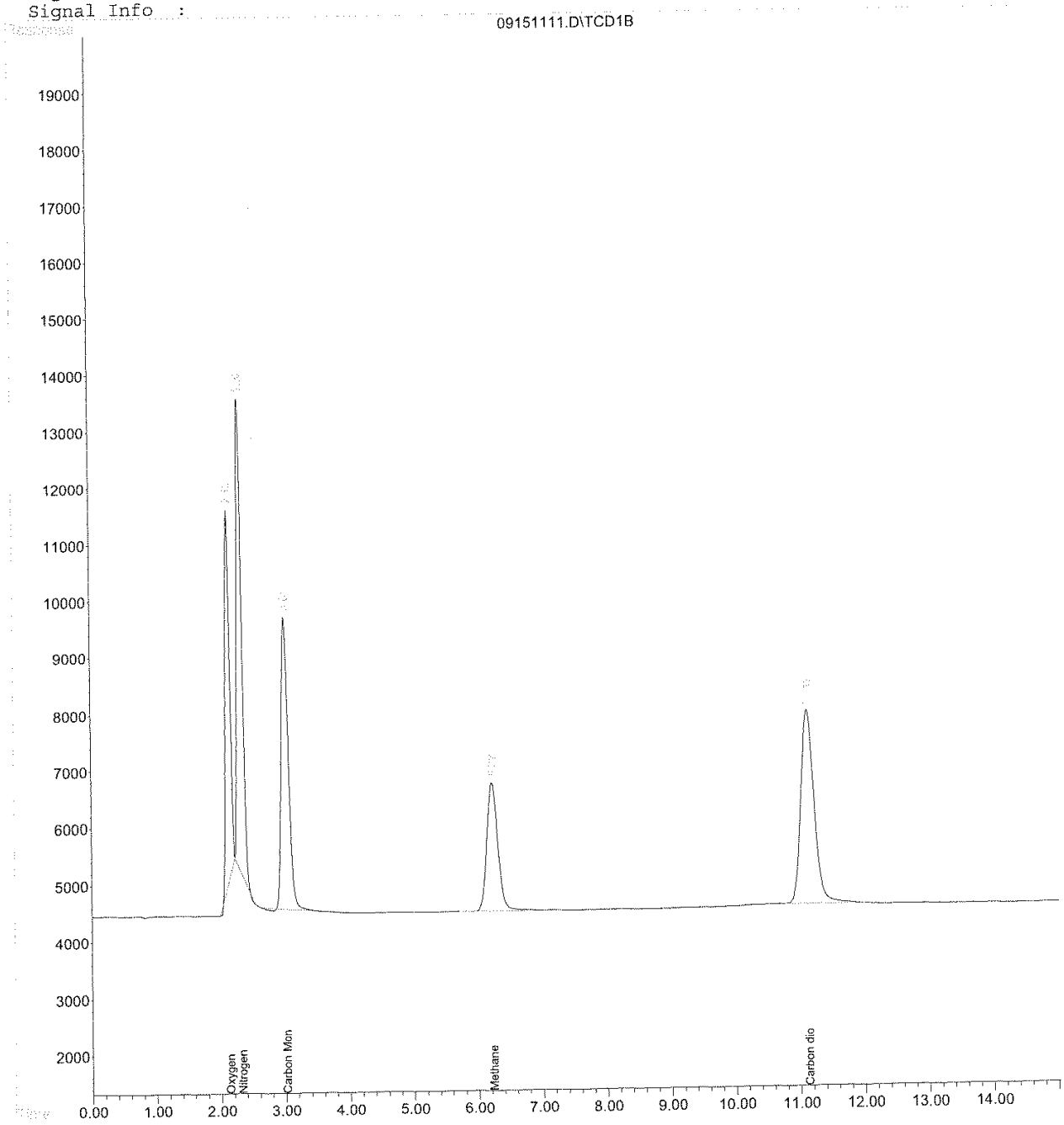
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	324086	2.263 %
2)	Nitrogen	2.32	455557	2.644 %
3)	Carbon Monoxide	3.01	392550	2.492 %
4)	Methane	6.23	268819	2.080 %
5)	Carbon dioxide	11.13	485721	2.675 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\091511\09151111.D Vial: 1
Acq On : 15 Sep 2011 5:18 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 23 16:30 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed Aug 17 19:07:55 2011
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\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011

Calibration Files
1 =03051102.D 2 =03051103.D 3 =03051104.D
4 =03051105.D 5 =03051106.D 6 =03051107.D

	Compound	1	2	3	4	5	6	Avg		%RSD
1)	Oxygen	1.450	1.444	1.427	1.365	1.324	2.791	1.624	E5	32.03
2)	Nitrogen	1.748	1.695	1.678	1.586	1.522	2.053	1.723	E5	9.90
3)	Carbon Monoxide	1.690	1.628	1.621	1.517	1.472	1.522	1.575	E5	5.32
4)	Methane	1.422	1.364	1.344	1.267	1.212	1.210	1.303	E5	6.66
5)	Carbon dioxide	2.121	2.009	2.012	1.874	1.813	1.842	1.945	E5	6.21

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

030511.M Thu Oct 20 10:42:38 2011 TESTCAL

Compound List Report GC/TCD

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title : Method d2504 air analysis
Last Update : Thu May 12 16:13:25 2011
Response via : Initial Calibration
Total Cpnds : 5

PK#	Type	Compound Name	Exp RT	Rel RT	Cal	A/H	ID
1		Oxygen	2.10	1.000	Q	A	R
2		Nitrogen	2.30	1.000	A	A	R
3		Carbon Monoxide	3.03	1.000	A	A	R
4		Methane	6.25	1.000	Q	A	R
5		Carbon dioxide	11.18	1.000	Q	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

030511.M Thu Oct 20 10:42:24 2011 TESTCAL