RTI Laboratories, Inc.

Date: *06-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
Work Order: 1111023 Revised

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 10/31/2011. Samples were received in good condition. The sample set consisted of 36 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 43931:

- Sample ID 1110757-016ADUP exhibited RPD results outside acceptance limits for Benzene (28.3%).

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

RTI Laboratories, Inc.

Date: *06-Dec.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
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CASE NARRATIVE

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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: Celest Horton for
Charles O'Bryan, Director, Quality Management

Date: 12/6/2011

Shaw
Shaw E & I, Inc. 1111023

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV056

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

Samples Shipment Date: 25 OCT 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Truchan
Project Contact: Pamela Moss
Carrier/Waybill No.: Fed Ex/2323121183

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 X Skin Irritant ___ Poison B ___ Radiological ___ Unknown ___

Sample Disposal: Return to Client ___ Disposal by Lab X Archive ___ (mos.)

1. Relinquished By (Signature/Affiliation) [signature] Date: 10/25/11 Time: 1300
1. Received By (Signature/Affiliation) S. Miller Date: 10/31/11 Time:

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
VA0695-FQ	SVMW-02-150-GS-VA0695-FQ-REG	19 OCT 2011	15:19	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0695-FQ	SVMW-02-150-GS-VA0695-FQ-REG	19 OCT 2011	15:19	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0696-FQ	SVMW-03-050-GS-VA0696-FQ-REG	19 OCT 2011	15:55	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0696-FQ	SVMW-03-050-GS-VA0696-FQ-REG	19 OCT 2011	15:55	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0697-FQ	SVMW-03-100-GS-VA0697-FQ-REG	20 OCT 2011	09:11	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0697-FQ	SVMW-03-100-GS-VA0697-FQ-REG	20 OCT 2011	09:11	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0698-FQ	SVMW-03-250-GS-VA0698-FQ-REG	21 OCT 2011	09:43	1 L BOTTLEVAC	1	None Required	Fixed Gases by ASTM D2504, VOCs /			N		

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Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV056

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
							TPH by TO-15					
VA0698-FQ	SVMW-03-250-GS-VA0698-FQ-REG	21 OCT 2011	09:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP			N		
VA0699-FQ	SVMW-03-300-GS-VA0699-FQ-REG	20 OCT 2011	09:43	1 L BOTTLEVAC	1	None Required	Fixed Gases by ASTM D2504, VOCs / TPH by TO-15			N		
VA0699-FQ	SVMW-03-300-GS-VA0699-FQ-REG	20 OCT 2011	09:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP			N		
VA0770	KAFB-106108-025-GS-VA0770-REG	~~23~~ 24 OCT 2011	14:41	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0770	KAFB-106108-025-GS-VA0770-REG	~~23~~ 24 OCT 2011	14:41	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0771	KAFB-106108-050-GS-VA0771-REG	~~23~~ 24 OCT 2011	15:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0771	KAFB-106108-050-GS-VA0771-REG	~~23~~ 24 OCT 2011	15:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0772	KAFB-106108-050-GS-VA0772-FD	~~23~~ 24 OCT 2011	15:15	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0772	KAFB-106108-050-GS-VA0772-FD	~~23~~ 24 OCT 2011	15:15	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0773	KAFB-106108-150-GS-VA0773-REG	~~23~~ 24 OCT 2011	16:03	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0773	KAFB-106108-150-GS-VA0773-REG	~~23~~ 24 OCT 2011	16:03	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0784	KAFB-106110-025-GS-VA0784-REG	~~25~~ 24 OCT 2011	09:12	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0784	KAFB-106110-025-GS-VA0784-REG	~~25~~ 24 OCT 2011	09:12	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0785	KAFB-106110-050-GS-VA0785-REG	~~25~~ 24 OCT 2011	09:49	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0785	KAFB-106110-050-GS-VA0785-REG	~~25~~ 24 OCT 2011	09:49	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0786	KAFB-106110-150-GS-VA0786-REG	~~25~~ 24 OCT 2011	10:30	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0786	KAFB-106110-150-GS-VA0786-REG	~~25~~ 24 OCT 2011	10:30	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0787	KAFB-106110-250-GS-VA0787-REG	~~25~~ 24 OCT 2011	11:17	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0787	KAFB-106110-250-GS-VA0787-REG	~~25~~ 24 OCT 2011	11:17	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0788	KAFB-106110-350-GS-VA0788-REG	~~25~~ 24 OCT 2011	12:00	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0788	KAFB-106110-350-GS-VA0788-REG	~~25~~ 24 OCT 2011	12:00	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0789	KAFB-106110-450-GS-VA0789-REG	~~25~~ 24 OCT 2011	13:01	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0789	KAFB-106110-450-GS-VA0789-REG	~~25~~ 24 OCT 2011	13:01	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0844	KAFB-106119-025-GS-VA0844-REG	19 OCT 2011	9:22	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0844	KAFB-106119-025-GS-VA0844-REG	19 OCT 2011	9:22	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0845	KAFB-106119-050-GS-VA0845-REG	19 OCT 2011	9:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV056

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0845	KAFB-106119-050-GS-VA0845-REG	19 OCT 2011	9:54	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0846	KAFB-106119-050-GS-VA0846-FD	19 OCT 2011	9:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0846	KAFB-106119-050-GS-VA0846-FD	19 OCT 2011	9:54	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0847	KAFB-106119-150-GS-VA0847-REG	19 OCT 2011	10:47	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0847	KAFB-106119-150-GS-VA0847-REG	19 OCT 2011	10:47	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0848	KAFB-106119-250-GS-VA0848-REG	19 OCT 2011	11:26	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0848	KAFB-106119-250-GS-VA0848-REG	19 OCT 2011	11:26	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0849	KAFB-106119-350-GS-VA0849-REG	19 OCT 2011	12:04	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0849	KAFB-106119-350-GS-VA0849-REG	19 OCT 2011	12:04	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0850	KAFB-106119-450-GS-VA0850-REG	19 OCT 2011	13:07	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0850	KAFB-106119-450-GS-VA0850-REG	19 OCT 2011	13:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0864	KAFB-106122-025-GS-VA0864-REG	18 OCT 2011	12:45	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0864	KAFB-106122-025-GS-VA0864-REG	18 OCT 2011	12:45	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0865	KAFB-106122-050-GS-VA0865-REG	18 OCT 2011	13:19	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0865	KAFB-106122-050-GS-VA0865-REG	18 OCT 2011	13:19	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0866	KAFB-106122-150-GS-VA0866-REG	18 OCT 2011	13:52	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0866	KAFB-106122-150-GS-VA0866-REG	18 OCT 2011	13:52	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0867	KAFB-106122-250-GS-VA0867-REG	18 OCT 2011	14:28	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0867	KAFB-106122-250-GS-VA0867-REG	18 OCT 2011	14:28	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0868	KAFB-106122-350-GS-VA0868-REG	18 OCT 2011	15:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0868	KAFB-106122-350-GS-VA0868-REG	18 OCT 2011	15:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0869	KAFB-106122-350-GS-VA0869-FD	18 OCT 2011	15:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0869	KAFB-106122-350-GS-VA0869-FD	18 OCT 2011	15:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0870	KAFB-106122-450-GS-VA0870-REG	18 OCT 2011	16:16	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0870	KAFB-106122-450-GS-VA0870-REG	18 OCT 2011	16:16	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0904	KAFB-106128-025-GS-VA0904-REG	20 OCT 2011	12:43	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0904	KAFB-106128-025-GS-VA0904-REG	20 OCT 2011	12:43	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0905	KAFB-106128-050-GS-VA0905-REG	20 OCT 2011	13:17	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-SV056

Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
VA0905	KAFB-106128-050-GS-VA0905-REG	20 OCT 2011	13:17	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0906	KAFB-106128-150-GS-VA0906-REG	20 OCT 2011	14:11	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0906	KAFB-106128-150-GS-VA0906-REG	20 OCT 2011	14:11	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0907	KAFB-106128-250-GS-VA0907-REG	20 OCT 2011	14:53	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0907	KAFB-106128-250-GS-VA0907-REG	20 OCT 2011	14:53	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0908	KAFB-106128-350-GS-VA0908-REG	20 OCT 2011	15:34	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0908	KAFB-106128-350-GS-VA0908-REG	20 OCT 2011	15:34	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA0909	KAFB-106128-450-GS-VA0909-REG	20 OCT 2011	16:11	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		
VA0909	KAFB-106128-450-GS-VA0909-REG	20 OCT 2011	16:11	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
VA8056-TB	FIELDQC-BW-VA8056-TB-TB	18 OCT 2011	8:00	1 L BOTTLEVAC	1	None Required	VOCs / TPH by TO-15			N		

CUSTODY SEAL
DATE 10/25/11
SIGNATURE

CUSTODY SEAL
DATE 10/25/11
SIGNATURE

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

T - 10
UPST 848842

Door: 1219
MI 48150
MI 482 9-02

UPS GROUND

1Z10335E0342959118

P14D019 1432149 Oct 27 22:54:07 2011 US

SS1013 HIP 11.1.3 BTLP2844L

6059 N

T - 10
UPST 872030

Door: 1218
MI 48150
MI 482 9-02

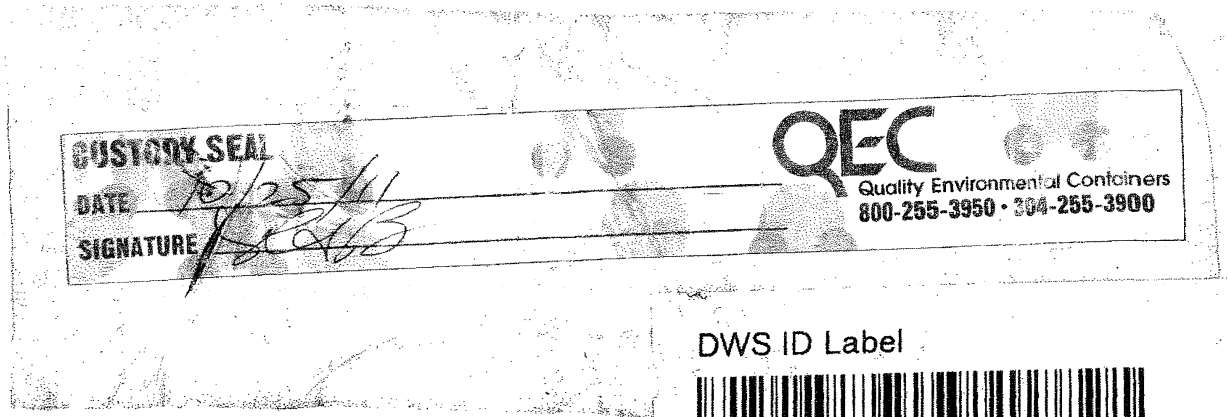
UPS GROUND

1Z10335E0341763321

P14D019 3166410 Oct 27 23:00 15 2011 US

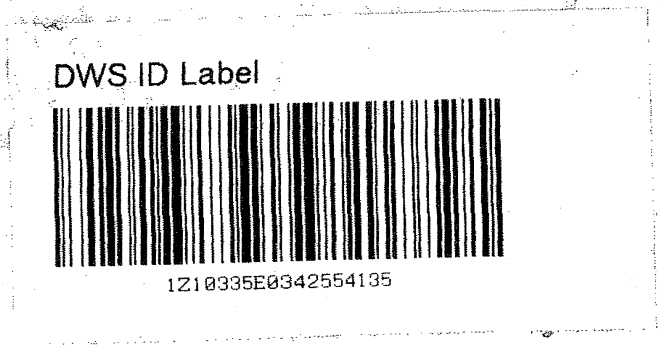
SS1013 HIP 11 1.3 BTLP2844L

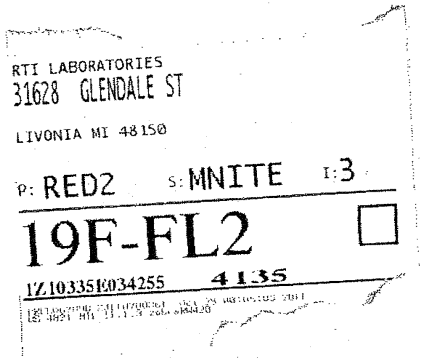
6059 N



Cooler C-304

Tedlar bags





111023

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: **10/31/2011 10:20:00 AM**

Work Order Number **1111023** RcptNo: **1**

Received by: **Stephanie Mercieca**

Completed by:

Reviewed by:

Completed Date: 11/1/2011 11:51:58 AM

Reviewed Date:

Carrier name: UPS

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

Case Number: SDG: SAS:

Adjusted? _____ Checked by

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

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1111023-001A	Container-01 of 01	Bottle				
1111023-001B	Container-01 of 01	Bottle				
1111023-002A	Container-01 of 01	Bottle				
1111023-002B	Container-01 of 01	Bottle				
1111023-003A	Container-01 of 01	Bottle				
1111023-003B	Container-01 of 01	Bottle				
1111023-004A	Container-01 of 01	Bottle				
1111023-004B	Container-01 of 01	Bottle				
1111023-005A	Container-01 of 01	Bottle				
1111023-005B	Container-01 of 01	Bottle				
1111023-006A	Container-01 of 01	Bottle				
1111023-006B	Container-01 of 01	Bottle				
1111023-007A	Container-01 of 01	Bottle				
1111023-007B	Container-01 of 01	Bottle				
1111023-008A	Container-01 of 01	Bottle				
1111023-008B	Container-01 of 01	Bottle				
1111023-009A	Container-01 of 01	Bottle				
1111023-009B	Container-01 of 01	Bottle				
1111023-010A	Container-01 of 01	Bottle				
1111023-010B	Container-01 of 01	Bottle				
1111023-011A	Container-01 of 01	Bottle				
1111023-011B	Container-01 of 01	Bottle				
1111023-012A	Container-01 of 01	Bottle				
1111023-012B	Container-01 of 01	Bottle				
1111023-013A	Container-01 of 01	Bottle				
1111023-013B	Container-01 of 01	Bottle				
1111023-014A	Container-01 of 01	Bottle				
1111023-014B	Container-01 of 01	Bottle				
1111023-015A	Container-01 of 01	Bottle				
1111023-015B	Container-01 of 01	Bottle				
1111023-016A	Container-01 of 01	Bottle				
1111023-016B	Container-01 of 01	Bottle				
1111023-017A	Container-01 of 01	Bottle				
1111023-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1111023-018A	Container-01 of 01	Bottle				
1111023-018B	Container-01 of 01	Bottle				
1111023-019A	Container-01 of 01	Bottle				
1111023-019B	Container-01 of 01	Bottle				
1111023-020A	Container-01 of 01	Bottle				
1111023-020B	Container-01 of 01	Bottle				
1111023-021A	Container-01 of 01	Bottle				
1111023-021B	Container-01 of 01	Bottle				
1111023-022A	Container-01 of 01	Bottle				
1111023-022B	Container-01 of 01	Bottle				
1111023-023A	Container-01 of 01	Bottle				
1111023-023B	Container-01 of 01	Bottle				
1111023-024A	Container-01 of 01	Bottle				
1111023-024B	Container-01 of 01	Bottle				
1111023-025A	Container-01 of 01	Bottle				
1111023-025B	Container-01 of 01	Bottle				
1111023-026A	Container-01 of 01	Bottle				
1111023-026B	Container-01 of 01	Bottle				
1111023-027A	Container-01 of 01	Bottle				
1111023-027B	Container-01 of 01	Bottle				
1111023-028A	Container-01 of 01	Bottle				
1111023-028B	Container-01 of 01	Bottle				
1111023-029A	Container-01 of 01	Bottle				
1111023-029B	Container-01 of 01	Bottle				
1111023-030A	Container-01 of 01	Bottle				
1111023-030B	Container-01 of 01	Bottle				
1111023-031A	Container-01 of 01	Bottle				
1111023-031B	Container-01 of 01	Bottle				
1111023-032A	Container-01 of 01	Bottle				
1111023-032B	Container-01 of 01	Bottle				
1111023-033A	Container-01 of 01	Bottle				
1111023-033B	Container-01 of 01	Bottle				
1111023-034A	Container-01 of 01	Bottle				
1111023-034B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1111023-035A	Container-01 of 01	Bottle				
1111023-035B	Container-01 of 01	Bottle				
1111023-036A	Container-01 of 01	Bottle				

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
C-304		Good	Yes		10/25/2011	

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:
Tracking Numbers (Samples arrived in 3 packages): UPS 1Z10335E0342554135, UPS 1Z10335E0342959118, UPS 1Z10335E0341763321

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: 1111023

01-Dec-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1111023-001	VA0695-FQ		10/19/2011 3:19:00 PM	10/31/2011 10:20:00 AM	Air
1111023-001	VA0695-FQ		10/19/2011 3:19:00 PM	10/31/2011 10:20:00 AM	Air
1111023-002	VA0696-FQ		10/19/2011 3:55:00 PM	10/31/2011 10:20:00 AM	Air
1111023-002	VA0696-FQ		10/19/2011 3:55:00 PM	10/31/2011 10:20:00 AM	Air
1111023-003	VA0697-FQ		10/20/2011 9:11:00 AM	10/31/2011 10:20:00 AM	Air
1111023-003	VA0697-FQ		10/20/2011 9:11:00 AM	10/31/2011 10:20:00 AM	Air
1111023-004	VA0698-FQ		10/21/2011 9:43:00 AM	10/31/2011 10:20:00 AM	Air
1111023-004	VA0698-FQ		10/21/2011 9:43:00 AM	10/31/2011 10:20:00 AM	Air
1111023-005	VA0699-FQ		10/20/2011 9:43:00 AM	10/31/2011 10:20:00 AM	Air
1111023-005	VA0699-FQ		10/20/2011 9:43:00 AM	10/31/2011 10:20:00 AM	Air
1111023-006	VA0770		10/24/2011 2:41:00 PM	10/31/2011 10:20:00 AM	Air
1111023-006	VA0770		10/24/2011 2:41:00 PM	10/31/2011 10:20:00 AM	Air
1111023-007	VA0771		10/24/2011 3:15:00 PM	10/31/2011 10:20:00 AM	Air
1111023-007	VA0771		10/24/2011 3:15:00 PM	10/31/2011 10:20:00 AM	Air
1111023-008	VA0772		10/24/2011 3:15:00 PM	10/31/2011 10:20:00 AM	Air
1111023-008	VA0772		10/24/2011 3:15:00 PM	10/31/2011 10:20:00 AM	Air
1111023-009	VA0773		10/24/2011 4:03:00 PM	10/31/2011 10:20:00 AM	Air
1111023-009	VA0773		10/24/2011 4:03:00 PM	10/31/2011 10:20:00 AM	Air
1111023-010	VA0784		10/24/2011 9:12:00 AM	10/31/2011 10:20:00 AM	Air
1111023-010	VA0784		10/24/2011 9:12:00 AM	10/31/2011 10:20:00 AM	Air
1111023-011	VA0785		10/24/2011 9:49:00 AM	10/31/2011 10:20:00 AM	Air
1111023-011	VA0785		10/24/2011 9:49:00 AM	10/31/2011 10:20:00 AM	Air
1111023-012	VA0786		10/24/2011 10:30:00 AM	10/31/2011 10:20:00 AM	Air
1111023-012	VA0786		10/24/2011 10:30:00 AM	10/31/2011 10:20:00 AM	Air
1111023-013	VA0787		10/24/2011 11:17:00 AM	10/31/2011 10:20:00 AM	Air
1111023-013	VA0787		10/24/2011 11:17:00 AM	10/31/2011 10:20:00 AM	Air
1111023-014	VA0788		10/24/2011 12:00:00 PM	10/31/2011 10:20:00 AM	Air
1111023-014	VA0788		10/24/2011 12:00:00 PM	10/31/2011 10:20:00 AM	Air
1111023-015	VA0789		10/24/2011 1:01:00 PM	10/31/2011 10:20:00 AM	Air
1111023-015	VA0789		10/24/2011 1:01:00 PM	10/31/2011 10:20:00 AM	Air
1111023-016	VA0844		10/19/2011 9:22:00 AM	10/31/2011 10:20:00 AM	Air
1111023-016	VA0844		10/19/2011 9:22:00 AM	10/31/2011 10:20:00 AM	Air
1111023-017	VA0845		10/19/2011 9:54:00 AM	10/31/2011 10:20:00 AM	Air
1111023-017	VA0845		10/19/2011 9:54:00 AM	10/31/2011 10:20:00 AM	Air

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Workorder Sample Summary

WO#: 1111023

01-Dec-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1111023-018	VA0846		10/19/2011 9:54:00 AM	10/31/2011 10:20:00 AM	Air
1111023-018	VA0846		10/19/2011 9:54:00 AM	10/31/2011 10:20:00 AM	Air
1111023-019	VA0847		10/19/2011 10:47:00 AM	10/31/2011 10:20:00 AM	Air
1111023-019	VA0847		10/19/2011 10:47:00 AM	10/31/2011 10:20:00 AM	Air
1111023-020	VA0848		10/19/2011 11:26:00 AM	10/31/2011 10:20:00 AM	Air
1111023-020	VA0848		10/19/2011 11:26:00 AM	10/31/2011 10:20:00 AM	Air
1111023-021	VA0849		10/19/2011 12:04:00 PM	10/31/2011 10:20:00 AM	Air
1111023-021	VA0849		10/19/2011 12:04:00 PM	10/31/2011 10:20:00 AM	Air
1111023-022	VA0850		10/19/2011 1:07:00 PM	10/31/2011 10:20:00 AM	Air
1111023-022	VA0850		10/19/2011 1:07:00 PM	10/31/2011 10:20:00 AM	Air
1111023-023	VA0864		10/18/2011 12:45:00 PM	10/31/2011 10:20:00 AM	Air
1111023-023	VA0864		10/18/2011 12:45:00 PM	10/31/2011 10:20:00 AM	Air
1111023-024	VA0865		10/18/2011 1:19:00 PM	10/31/2011 10:20:00 AM	Air
1111023-024	VA0865		10/18/2011 1:19:00 PM	10/31/2011 10:20:00 AM	Air
1111023-025	VA0866		10/18/2011 1:52:00 PM	10/31/2011 10:20:00 AM	Air
1111023-025	VA0866		10/18/2011 1:52:00 PM	10/31/2011 10:20:00 AM	Air
1111023-026	VA0867		10/18/2011 2:28:00 PM	10/31/2011 10:20:00 AM	Air
1111023-026	VA0867		10/18/2011 2:28:00 PM	10/31/2011 10:20:00 AM	Air
1111023-027	VA0868		10/18/2011 3:16:00 PM	10/31/2011 10:20:00 AM	Air
1111023-027	VA0868		10/18/2011 3:16:00 PM	10/31/2011 10:20:00 AM	Air
1111023-028	VA0869		10/18/2011 3:16:00 PM	10/31/2011 10:20:00 AM	Air
1111023-028	VA0869		10/18/2011 3:16:00 PM	10/31/2011 10:20:00 AM	Air
1111023-029	VA0870		10/18/2011 4:16:00 PM	10/31/2011 10:20:00 AM	Air
1111023-029	VA0870		10/18/2011 4:16:00 PM	10/31/2011 10:20:00 AM	Air
1111023-030	VA0904		10/20/2011 12:43:00 PM	10/31/2011 10:20:00 AM	Air
1111023-030	VA0904		10/20/2011 12:43:00 PM	10/31/2011 10:20:00 AM	Air
1111023-031	VA0905		10/20/2011 1:17:00 PM	10/31/2011 10:20:00 AM	Air
1111023-031	VA0905		10/20/2011 1:17:00 PM	10/31/2011 10:20:00 AM	Air
1111023-032	VA0906		10/20/2011 2:11:00 PM	10/31/2011 10:20:00 AM	Air
1111023-032	VA0906		10/20/2011 2:11:00 PM	10/31/2011 10:20:00 AM	Air
1111023-033	VA0907		10/20/2011 2:53:00 PM	10/31/2011 10:20:00 AM	Air
1111023-033	VA0907		10/20/2011 2:53:00 PM	10/31/2011 10:20:00 AM	Air
1111023-034	VA0908		10/20/2011 3:34:00 PM	10/31/2011 10:20:00 AM	Air
1111023-034	VA0908		10/20/2011 3:34:00 PM	10/31/2011 10:20:00 AM	Air

RTI LABORATORIES, INC.

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Workorder Sample Summary

WO#: 1111023

01-Dec-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1111023-035	VA0909		10/20/2011 4:11:00 PM	10/31/2011 10:20:00 AM	Air
1111023-035	VA0909		10/20/2011 4:11:00 PM	10/31/2011 10:20:00 AM	Air
1111023-036	VA8056-TB		10/18/2011 8:00:00 AM	10/31/2011 10:20:00 AM	Air

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DATES REPORT

WO#: **1111023**

01-Dec-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
1111023-001A	VA0695-FQ	10/19/2011 3:19:00 PM	Air	Air-Phase Petroleum Hydrocarbons			11/4/2011 1:14:00 AM
				Volatile Organic Compounds			11/4/2011 10:22:00 AM
1111023-001B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 2:53:00 PM
1111023-002A	VA0696-FQ	10/19/2011 3:55:00 PM		Air-Phase Petroleum Hydrocarbons			11/3/2011 4:36:00 PM
				Volatile Organic Compounds			11/4/2011 11:02:00 AM
				Volatile Organic Compounds			11/9/2011 4:00:00 AM
1111023-002B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 3:24:00 PM
1111023-003A	VA0697-FQ	10/20/2011 9:11:00 AM		Air-Phase Petroleum Hydrocarbons			10/31/2011 10:54:00 PM
				Volatile Organic Compounds			11/9/2011 4:41:00 AM
1111023-003B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 3:44:00 PM
1111023-004A	VA0698-FQ	10/21/2011 9:43:00 AM		Air-Phase Petroleum Hydrocarbons			11/10/2011 6:55:00 PM
				Volatile Organic Compounds			11/14/2011 10:26:00 PM
1111023-004B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 3:25:00 PM
1111023-005A	VA0699-FQ	10/20/2011 9:43:00 AM		Air-Phase Petroleum Hydrocarbons			11/3/2011 6:00:00 PM
				Volatile Organic Compounds			11/4/2011 11:43:00 AM
1111023-005B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 3:54:00 PM
1111023-006A	VA0770	10/24/2011 2:41:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 3:57:00 AM
				Volatile Organic Compounds			11/14/2011 11:14:00 PM
1111023-006B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 5:52:00 PM
1111023-007A	VA0771	10/24/2011 3:15:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 4:47:00 AM
				Volatile Organic Compounds			11/15/2011 12:02:00 AM

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DATES REPORT

WO#: **1111023**

01-Dec-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
1111023-007B	VA0771	10/24/2011 3:15:00 PM	Air	Noncondensable Gases and Light Hydrocarbons			11/20/2011 6:11:00 PM
1111023-008A	VA0772			Air-Phase Petroleum Hydrocarbons			11/10/2011 5:35:00 AM
				Volatile Organic Compounds			11/15/2011 12:51:00 AM
1111023-008B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 9:14:00 PM
1111023-009A	VA0773	10/24/2011 4:03:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 6:24:00 AM
				Volatile Organic Compounds			11/15/2011 1:35:00 AM
1111023-009B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 9:37:00 PM
1111023-010A	VA0784	10/24/2011 9:12:00 AM		Air-Phase Petroleum Hydrocarbons			11/1/2011 6:35:00 AM
				Volatile Organic Compounds			11/9/2011 6:10:00 AM
1111023-010B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 9:56:00 PM
1111023-011A	VA0785	10/24/2011 9:49:00 AM		Air-Phase Petroleum Hydrocarbons			11/1/2011 7:23:00 AM
				Volatile Organic Compounds			11/9/2011 6:58:00 AM
1111023-011B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 10:15:00 PM
1111023-012A	VA0786	10/24/2011 10:30:00 AM		Air-Phase Petroleum Hydrocarbons			11/4/2011 7:29:00 AM
				Volatile Organic Compounds			11/4/2011 5:40:00 PM
1111023-012B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 10:34:00 PM
1111023-013A	VA0787	10/24/2011 11:17:00 AM		Air-Phase Petroleum Hydrocarbons			11/10/2011 1:13:00 AM
				Volatile Organic Compounds			11/9/2011 7:46:00 AM
1111023-013B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 10:52:00 PM
1111023-014A	VA0788	10/24/2011 12:00:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 2:04:00 AM
				Volatile Organic Compounds			11/9/2011 8:34:00 AM

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WO#: **1111023**

01-Dec-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
1111023-014B	VA0788	10/24/2011 12:00:00 PM	Air	Noncondensable Gases and Light Hydrocarbons			11/20/2011 11:17:00 PM
1111023-015A	VA0789	10/24/2011 1:01:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 3:01:00 AM
				Volatile Organic Compounds			11/9/2011 11:46:00 AM
1111023-015B				Noncondensable Gases and Light Hydrocarbons			11/20/2011 11:35:00 PM
1111023-016A	VA0844	10/19/2011 9:22:00 AM		Air-Phase Petroleum Hydrocarbons			11/1/2011 8:12:00 AM
				Volatile Organic Compounds			11/9/2011 3:11:00 PM
1111023-016B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 4:38:00 PM
1111023-017A	VA0845	10/19/2011 9:54:00 AM		Air-Phase Petroleum Hydrocarbons			11/10/2011 2:18:00 PM
				Volatile Organic Compounds			11/4/2011 5:31:00 AM
1111023-017B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 5:26:00 PM
1111023-018A	VA0846			Air-Phase Petroleum Hydrocarbons			11/10/2011 3:08:00 PM
				Volatile Organic Compounds			11/4/2011 6:12:00 AM
				Volatile Organic Compounds			11/9/2011 1:53:00 AM
1111023-018B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 5:47:00 PM
1111023-019A	VA0847	10/19/2011 10:47:00 AM		Air-Phase Petroleum Hydrocarbons			11/10/2011 3:58:00 PM
				Volatile Organic Compounds			11/9/2011 2:34:00 AM
				Volatile Organic Compounds			11/15/2011 12:52:00 PM
1111023-019B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 6:45:00 PM
1111023-020A	VA0848	10/19/2011 11:26:00 AM		Air-Phase Petroleum Hydrocarbons			11/10/2011 4:45:00 PM
				Volatile Organic Compounds			11/9/2011 4:42:00 PM
1111023-020B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 7:08:00 PM

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DATES REPORT

WO#: **1111023**

01-Dec-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
1111023-021A	VA0849	10/19/2011 12:04:00 PM	Air	Air-Phase Petroleum Hydrocarbons			11/10/2011 5:28:00 PM
				Volatile Organic Compounds			11/4/2011 8:54:00 AM
1111023-021B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 7:28:00 PM
1111023-022A	VA0850	10/19/2011 1:07:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 7:06:00 AM
				Volatile Organic Compounds			11/4/2011 9:35:00 AM
1111023-022B				Noncondensable Gases and Light Hydrocarbons			11/17/2011 7:54:00 PM
1111023-023A	VA0864	10/18/2011 12:45:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 8:37:00 AM
				Volatile Organic Compounds			11/4/2011 12:02:00 AM
1111023-023B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 3:22:00 PM
1111023-024A	VA0865	10/18/2011 1:19:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 9:26:00 AM
				Volatile Organic Compounds			11/4/2011 12:49:00 AM
1111023-024B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 3:45:00 PM
1111023-025A	VA0866	10/18/2011 1:52:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 7:38:00 PM
				Volatile Organic Compounds			11/8/2011 11:46:00 PM
1111023-025B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 4:35:00 PM
1111023-026A	VA0867	10/18/2011 2:28:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 8:21:00 PM
				Volatile Organic Compounds			11/9/2011 12:27:00 AM
1111023-026B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 5:13:00 PM
1111023-027A	VA0868	10/18/2011 3:16:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 11:51:00 AM
				Volatile Organic Compounds			11/4/2011 3:10:00 AM
1111023-027B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 6:12:00 PM

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DATES REPORT

WO#: **1111023**

01-Dec-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
1111023-028A	VA0869	10/18/2011 3:16:00 PM	Air	Air-Phase Petroleum Hydrocarbons			11/10/2011 12:41:00 PM
				Volatile Organic Compounds			11/4/2011 3:57:00 AM
1111023-028B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 6:36:00 PM
1111023-029A	VA0870	10/18/2011 4:16:00 PM		Air-Phase Petroleum Hydrocarbons			11/10/2011 1:28:00 PM
				Volatile Organic Compounds			11/4/2011 4:44:00 AM
1111023-029B				Noncondensable Gases and Light Hydrocarbons			11/16/2011 7:02:00 PM
1111023-030A	VA0904	10/20/2011 12:43:00 PM		Air-Phase Petroleum Hydrocarbons			11/4/2011 2:02:00 AM
				Volatile Organic Compounds			11/4/2011 12:30:00 PM
1111023-030B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 4:47:00 PM
1111023-031A	VA0905	10/20/2011 1:17:00 PM		Air-Phase Petroleum Hydrocarbons			11/4/2011 2:51:00 AM
				Volatile Organic Compounds			11/4/2011 1:17:00 PM
1111023-031B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 5:06:00 PM
1111023-032A	VA0906	10/20/2011 2:11:00 PM		Air-Phase Petroleum Hydrocarbons			11/4/2011 3:40:00 AM
				Volatile Organic Compounds			11/4/2011 2:04:00 PM
1111023-032B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 5:27:00 PM
1111023-033A	VA0907	10/20/2011 2:53:00 PM		Air-Phase Petroleum Hydrocarbons			11/4/2011 4:29:00 AM
				Volatile Organic Compounds			11/4/2011 2:52:00 PM
1111023-033B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 6:00:00 PM
1111023-034A	VA0908	10/20/2011 3:34:00 PM		Air-Phase Petroleum Hydrocarbons			11/3/2011 9:30:00 PM
				Volatile Organic Compounds			11/4/2011 3:32:00 PM
1111023-034B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 6:47:00 PM

RTI LABORATORIES, INC.

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DATES REPORT

WO#: **1111023**

01-Dec-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
1111023-035A	VA0909	10/20/2011 4:11:00 PM	Air	Air-Phase Petroleum Hydrocarbons			11/10/2011 6:12:00 PM
				Volatile Organic Compounds			11/4/2011 4:12:00 PM
				Volatile Organic Compounds			11/9/2011 5:23:00 PM
1111023-035B				Noncondensable Gases and Light Hydrocarbons			11/18/2011 7:09:00 PM
1111023-036A	VA8056-TB	10/18/2011 8:00:00 AM		Volatile Organic Compounds			11/2/2011 5:17:00 PM

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 3:19:00 PM

Project: Kirtland AFB

Lab ID: 1111023-001 **Matrix:** AIR

Client Sample ID VA0695-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	3.2	0.10		%	1	11/17/2011 2:53:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 2:53:00 PM
Methane	ND	0.50		%	1	11/17/2011 2:53:00 PM
Nitrogen	81	0.10		%	1	11/17/2011 2:53:00 PM
Oxygen	16	0.10		%	1	11/17/2011 2:53:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 10:22:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 10:22:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Acetone	680	400		ppbv	400	11/4/2011 10:22:00 AM
Benzene	1,600	400		ppbv	400	11/4/2011 10:22:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 10:22:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 3:19:00 PM

Project: Kirtland AFB

Lab ID: 1111023-001 **Matrix:** AIR

Client Sample ID VA0695-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Cyclohexane	5,900	800		ppbv	400	11/4/2011 10:22:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 10:22:00 AM
Heptane	2,000	400		ppbv	400	11/4/2011 10:22:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 10:22:00 AM
m,p-Xylene	1,500	800		ppbv	400	11/4/2011 10:22:00 AM
Methylene chloride	1,400	2,000	J	ppbv	400	11/4/2011 10:22:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
n-Hexane	2,000	800		ppbv	400	11/4/2011 10:22:00 AM
o-Xylene	470	400		ppbv	400	11/4/2011 10:22:00 AM
Propylene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Toluene	5,900	400		ppbv	400	11/4/2011 10:22:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 10:22:00 AM
Xylenes, Total	1,900	1,200		ppbv	400	11/4/2011 10:22:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	11/4/2011 10:22:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 3:19:00 PM

Project: Kirtland AFB

Lab ID: 1111023-001 **Matrix:** AIR

Client Sample ID VA0695-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	310,000	47,000		µg/m³	400	11/4/2011 1:14:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/4/2011 1:14:00 AM
C9-C12 Aliphatic Hydrocarbons	59,000	76,000	J	µg/m³	400	11/4/2011 1:14:00 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	11/4/2011 1:14:00 AM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 3:55:00 PM

Project: Kirtland AFB

Lab ID: 1111023-002 **Matrix:** AIR

Client Sample ID VA0696-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	7.4	0.10		%	1	11/17/2011 3:24:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 3:24:00 PM
Methane	ND	0.50		%	1	11/17/2011 3:24:00 PM
Nitrogen	85	0.10		%	1	11/17/2011 3:24:00 PM
Oxygen	7.4	0.10		%	1	11/17/2011 3:24:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
2-Butanone	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
2-Hexanone	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Acetone	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Benzene	220,000	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Bromodichloromethane	8,200	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Bromoform	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Bromomethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 3:55:00 PM

Project: Kirtland AFB

Lab ID: 1111023-002 **Matrix:** AIR

Client Sample ID VA0696-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Chloroethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Chloroform	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Chloromethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Cyclohexane	690,000	40,000		ppbv	20000	11/9/2011 4:00:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Ethylbenzene	17,000	16,000		ppbv	8000	11/4/2011 11:02:00 AM
Heptane	280,000	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/4/2011 11:02:00 AM
m,p-Xylene	31,000	16,000		ppbv	8000	11/4/2011 11:02:00 AM
Methylene chloride	ND	40,000		ppbv	8000	11/4/2011 11:02:00 AM
Naphthalene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
n-Hexane	520,000	40,000		ppbv	20000	11/9/2011 4:00:00 AM
o-Xylene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Propylene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Styrene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Toluene	78,000	8,000		ppbv	8000	11/4/2011 11:02:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Trichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	11/4/2011 11:02:00 AM
Xylenes, Total	31,000	24,000		ppbv	8000	11/4/2011 11:02:00 AM
Surr: 4-Bromofluorobenzene	119	70-130		%REC	8000	11/4/2011 11:02:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 3:55:00 PM

Project: Kirtland AFB

Lab ID: 1111023-002 **Matrix:** AIR

Client Sample ID VA0696-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	18,000,000	940,000		µg/m³	8000	11/3/2011 4:36:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	11/3/2011 4:36:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	11/3/2011 4:36:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	8000	11/3/2011 4:36:00 PM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 9:11:00 AM

Project: Kirtland AFB

Lab ID: 1111023-003 **Matrix:** AIR

Client Sample ID VA0697-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.4	0.10		%	1	11/17/2011 3:44:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 3:44:00 PM
Methane	ND	0.50		%	1	11/17/2011 3:44:00 PM
Nitrogen	80	0.10		%	1	11/17/2011 3:44:00 PM
Oxygen	17	0.10		%	1	11/17/2011 3:44:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
2-Butanone	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
2-Hexanone	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Acetone	19,000	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Benzene	75,000	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Bromoform	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Bromomethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 9:11:00 AM

Project: Kirtland AFB

Lab ID: 1111023-003 **Matrix:** AIR

Client Sample ID VA0697-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Chloroethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Chloroform	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Chloromethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Cyclohexane	280,000	16,000		ppbv	8000	11/9/2011 4:41:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	11/9/2011 4:41:00 AM
Heptane	140,000	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/9/2011 4:41:00 AM
m,p-Xylene	9,000	16,000	J	ppbv	8000	11/9/2011 4:41:00 AM
Methylene chloride	ND	40,000		ppbv	8000	11/9/2011 4:41:00 AM
Naphthalene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
n-Hexane	310,000	16,000		ppbv	8000	11/9/2011 4:41:00 AM
o-Xylene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Propylene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Styrene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Toluene	86,000	8,000		ppbv	8000	11/9/2011 4:41:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Trichloroethene	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	11/9/2011 4:41:00 AM
Xylenes, Total	9,000	24,000	J	ppbv	8000	11/9/2011 4:41:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	8000	11/9/2011 4:41:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 9:11:00 AM

Project: Kirtland AFB

Lab ID: 1111023-003 **Matrix:** AIR

Client Sample ID VA0697-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	9,900,000	940,000		µg/m³	8000	10/31/2011 10:54:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/31/2011 10:54:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/31/2011 10:54:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	10/31/2011 10:54:00 PM

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/21/2011 9:43:00 AM

Project: Kirtland AFB

Lab ID: 1111023-004 **Matrix:** AIR

Client Sample ID VA0698-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.5	0.10		%	1	11/18/2011 3:25:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 3:25:00 PM
Methane	ND	0.50		%	1	11/18/2011 3:25:00 PM
Nitrogen	81	0.10		%	1	11/18/2011 3:25:00 PM
Oxygen	17	0.10		%	1	11/18/2011 3:25:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,1-Dichloroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,1-Dichloroethene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,2-Dibromoethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,2-Dichloroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,2-Dichloropropane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,3-Butadiene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
2-Butanone	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
2-Hexanone	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Acetone	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Benzene	67,000	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Benzyl chloride	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Bromodichloromethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Bromoform	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Bromomethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Carbon disulfide	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/21/2011 9:43:00 AM

Project: Kirtland AFB

Lab ID: 1111023-004 **Matrix:** AIR

Client Sample ID VA0698-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Chlorobenzene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Chlorodibromomethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Chloroethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Chloroform	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Chloromethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Cyclohexane	370,000	40,000		ppbv	20000	11/14/2011 10:26:00 PM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Ethyl acetate	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Ethylbenzene	ND	40,000		ppbv	20000	11/14/2011 10:26:00 PM
Heptane	280,000	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Hexachlorobutadiene	ND	40,000		ppbv	20000	11/14/2011 10:26:00 PM
m,p-Xylene	ND	40,000		ppbv	20000	11/14/2011 10:26:00 PM
Methylene chloride	ND	100,000		ppbv	20000	11/14/2011 10:26:00 PM
Naphthalene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
n-Hexane	270,000	40,000		ppbv	20000	11/14/2011 10:26:00 PM
o-Xylene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Propylene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Styrene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Tetrachloroethene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Tetrahydrofuran	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Toluene	93,000	20,000		ppbv	20000	11/14/2011 10:26:00 PM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Trichloroethene	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Trichlorofluoromethane	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Vinyl acetate	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Vinyl chloride	ND	20,000		ppbv	20000	11/14/2011 10:26:00 PM
Xylenes, Total	ND	60,000		ppbv	20000	11/14/2011 10:26:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	20000	11/14/2011 10:26:00 PM

Qualifiers:

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

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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/21/2011 9:43:00 AM

Project: Kirtland AFB

Lab ID: 1111023-004 **Matrix:** AIR

Client Sample ID VA0698-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	14,000,000	2,300,000		µg/m³	20000	11/10/2011 6:55:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	11/10/2011 6:55:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000		µg/m³	20000	11/10/2011 6:55:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	20000	11/10/2011 6:55:00 PM

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 9:43:00 AM

Project: Kirtland AFB

Lab ID: 1111023-005 **Matrix:** AIR

Client Sample ID VA0699-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.5	0.10		%	1	11/18/2011 3:54:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 3:54:00 PM
Methane	ND	0.50		%	1	11/18/2011 3:54:00 PM
Nitrogen	81	0.10		%	1	11/18/2011 3:54:00 PM
Oxygen	17	0.10		%	1	11/18/2011 3:54:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
2-Butanone	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
2-Hexanone	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Acetone	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Benzene	51,000	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Bromoform	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Bromomethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM

Qualifiers:

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

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Analytical Report

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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 9:43:00 AM

Project: Kirtland AFB

Lab ID: 1111023-005 **Matrix:** AIR

Client Sample ID VA0699-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Chloroethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Chloroform	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Chloromethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Cyclohexane	270,000	16,000		ppbv	8000	11/4/2011 11:43:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	11/4/2011 11:43:00 AM
Heptane	180,000	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/4/2011 11:43:00 AM
m,p-Xylene	11,000	16,000	J	ppbv	8000	11/4/2011 11:43:00 AM
Methylene chloride	ND	40,000		ppbv	8000	11/4/2011 11:43:00 AM
Naphthalene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
n-Hexane	210,000	16,000		ppbv	8000	11/4/2011 11:43:00 AM
o-Xylene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Propylene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Styrene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Toluene	68,000	8,000		ppbv	8000	11/4/2011 11:43:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Trichloroethene	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	11/4/2011 11:43:00 AM
Xylenes, Total	11,000	24,000	J	ppbv	8000	11/4/2011 11:43:00 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	8000	11/4/2011 11:43:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 9:43:00 AM

Project: Kirtland AFB

Lab ID: 1111023-005 **Matrix:** AIR

Client Sample ID VA0699-FQ

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	6,200,000	940,000		µg/m³	8000	11/3/2011 6:00:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	11/3/2011 6:00:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	11/3/2011 6:00:00 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	8000	11/3/2011 6:00:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 2:41:00 PM

Project: Kirtland AFB

Lab ID: 1111023-006 **Matrix:** AIR

Client Sample ID VA0770

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.50	0.10		%	1	11/20/2011 5:52:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 5:52:00 PM
Methane	ND	0.50		%	1	11/20/2011 5:52:00 PM
Nitrogen	78	0.10		%	1	11/20/2011 5:52:00 PM
Oxygen	21	0.10		%	1	11/20/2011 5:52:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,3-Butadiene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
2-Butanone	ND	400		ppbv	400	11/14/2011 11:14:00 PM
2-Hexanone	ND	400		ppbv	400	11/14/2011 11:14:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Acetone	1,600	400		ppbv	400	11/14/2011 11:14:00 PM
Benzene	3,400	400		ppbv	400	11/14/2011 11:14:00 PM
Benzyl chloride	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Bromodichloromethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Bromoform	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Bromomethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Carbon disulfide	ND	400		ppbv	400	11/14/2011 11:14:00 PM

Qualifiers:

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

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 2:41:00 PM

Project: Kirtland AFB

Lab ID: 1111023-006 **Matrix:** AIR

Client Sample ID VA0770

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Chlorobenzene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Chlorodibromomethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Chloroethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Chloroform	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Chloromethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Cyclohexane	8,100	800		ppbv	400	11/14/2011 11:14:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Ethyl acetate	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Ethylbenzene	500	800	J	ppbv	400	11/14/2011 11:14:00 PM
Heptane	5,100	400		ppbv	400	11/14/2011 11:14:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	11/14/2011 11:14:00 PM
m,p-Xylene	1,500	800		ppbv	400	11/14/2011 11:14:00 PM
Methylene chloride	4,400	2,000		ppbv	400	11/14/2011 11:14:00 PM
Naphthalene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
n-Hexane	4,500	800		ppbv	400	11/14/2011 11:14:00 PM
o-Xylene	480	400		ppbv	400	11/14/2011 11:14:00 PM
Propylene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Styrene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Tetrachloroethene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Tetrahydrofuran	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Toluene	9,900	400		ppbv	400	11/14/2011 11:14:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Trichloroethene	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Vinyl acetate	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Vinyl chloride	ND	400		ppbv	400	11/14/2011 11:14:00 PM
Xylenes, Total	2,000	1,200		ppbv	400	11/14/2011 11:14:00 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	11/14/2011 11:14:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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Analytical Report

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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 2:41:00 PM

Project: Kirtland AFB

Lab ID: 1111023-006 **Matrix:** AIR

Client Sample ID VA0770

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	390,000	47,000		µg/m³	400	11/10/2011 3:57:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 3:57:00 AM
C9-C12 Aliphatic Hydrocarbons	32,000	76,000	J	µg/m³	400	11/10/2011 3:57:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	400	11/10/2011 3:57:00 AM

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 3:15:00 PM

Project: Kirtland AFB

Lab ID: 1111023-007 **Matrix:** AIR

Client Sample ID VA0771

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.9	0.10		%	1	11/20/2011 6:11:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 6:11:00 PM
Methane	ND	0.50		%	1	11/20/2011 6:11:00 PM
Nitrogen	79	0.10		%	1	11/20/2011 6:11:00 PM
Oxygen	19	0.10		%	1	11/20/2011 6:11:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
2-Butanone	ND	400		ppbv	400	11/15/2011 12:02:00 AM
2-Hexanone	ND	400		ppbv	400	11/15/2011 12:02:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Acetone	1,300	400		ppbv	400	11/15/2011 12:02:00 AM
Benzene	1,700	400		ppbv	400	11/15/2011 12:02:00 AM
Benzyl chloride	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Bromoform	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Bromomethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Carbon disulfide	ND	400		ppbv	400	11/15/2011 12:02:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 3:15:00 PM

Project: Kirtland AFB

Lab ID: 1111023-007 **Matrix:** AIR

Client Sample ID VA0771

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Chlorobenzene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Chloroethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Chloroform	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Chloromethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Cyclohexane	3,900	800		ppbv	400	11/15/2011 12:02:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Ethyl acetate	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Ethylbenzene	ND	800		ppbv	400	11/15/2011 12:02:00 AM
Heptane	2,500	400		ppbv	400	11/15/2011 12:02:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/15/2011 12:02:00 AM
m,p-Xylene	990	800		ppbv	400	11/15/2011 12:02:00 AM
Methylene chloride	3,100	2,000		ppbv	400	11/15/2011 12:02:00 AM
Naphthalene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
n-Hexane	2,400	800		ppbv	400	11/15/2011 12:02:00 AM
o-Xylene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Propylene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Styrene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Toluene	5,200	400		ppbv	400	11/15/2011 12:02:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Trichloroethene	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Vinyl acetate	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Vinyl chloride	ND	400		ppbv	400	11/15/2011 12:02:00 AM
Xylenes, Total	990	1,200	J	ppbv	400	11/15/2011 12:02:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	11/15/2011 12:02:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
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B	Analyte detected in the associated Method Blank
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Analytical Report

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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 3:15:00 PM

Project: Kirtland AFB

Lab ID: 1111023-007 **Matrix:** AIR

Client Sample ID VA0771

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	310,000	47,000		µg/m³	400	11/10/2011 4:47:00 AM
C9-C10 Aromatic Hydrocarbons	15,000	53,000	J	µg/m³	400	11/10/2011 4:47:00 AM
C9-C12 Aliphatic Hydrocarbons	12,000	76,000	J	µg/m³	400	11/10/2011 4:47:00 AM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	400	11/10/2011 4:47:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 3:15:00 PM

Project: Kirtland AFB

Lab ID: 1111023-008 **Matrix:** AIR

Client Sample ID VA0772

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.9	0.10		%	1	11/20/2011 9:14:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 9:14:00 PM
Methane	ND	0.50		%	1	11/20/2011 9:14:00 PM
Nitrogen	79	0.10		%	1	11/20/2011 9:14:00 PM
Oxygen	19	0.10		%	1	11/20/2011 9:14:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
2-Butanone	ND	400		ppbv	400	11/15/2011 12:51:00 AM
2-Hexanone	ND	400		ppbv	400	11/15/2011 12:51:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Acetone	1,300	400		ppbv	400	11/15/2011 12:51:00 AM
Benzene	2,400	400		ppbv	400	11/15/2011 12:51:00 AM
Benzyl chloride	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Bromoform	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Bromomethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Carbon disulfide	ND	400		ppbv	400	11/15/2011 12:51:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
M	Manual Integration used to determine area response
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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 3:15:00 PM

Project: Kirtland AFB

Lab ID: 1111023-008 **Matrix:** AIR

Client Sample ID VA0772

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Chlorobenzene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Chloroethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Chloroform	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Chloromethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Cyclohexane	5,300	800		ppbv	400	11/15/2011 12:51:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Ethyl acetate	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Ethylbenzene	ND	800		ppbv	400	11/15/2011 12:51:00 AM
Heptane	3,300	400		ppbv	400	11/15/2011 12:51:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/15/2011 12:51:00 AM
m,p-Xylene	1,000	800		ppbv	400	11/15/2011 12:51:00 AM
Methylene chloride	3,400	2,000		ppbv	400	11/15/2011 12:51:00 AM
Naphthalene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
n-Hexane	3,800	800		ppbv	400	11/15/2011 12:51:00 AM
o-Xylene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Propylene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Styrene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Toluene	6,200	400		ppbv	400	11/15/2011 12:51:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Trichloroethene	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Vinyl acetate	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Vinyl chloride	ND	400		ppbv	400	11/15/2011 12:51:00 AM
Xylenes, Total	1,000	1,200	J	ppbv	400	11/15/2011 12:51:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	11/15/2011 12:51:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 3:15:00 PM

Project: Kirtland AFB

Lab ID: 1111023-008 **Matrix:** AIR

Client Sample ID VA0772

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	200,000	47,000		µg/m³	400	11/10/2011 5:35:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 5:35:00 AM
C9-C12 Aliphatic Hydrocarbons	18,000	76,000	J	µg/m³	400	11/10/2011 5:35:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	11/10/2011 5:35:00 AM

Qualifiers:

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

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 4:03:00 PM

Project: Kirtland AFB

Lab ID: 1111023-009 **Matrix:** AIR

Client Sample ID VA0773

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.4	0.10		%	1	11/20/2011 9:37:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 9:37:00 PM
Methane	ND	0.50		%	1	11/20/2011 9:37:00 PM
Nitrogen	80	0.10		%	1	11/20/2011 9:37:00 PM
Oxygen	17	0.10		%	1	11/20/2011 9:37:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,3-Butadiene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
2-Butanone	ND	800		ppbv	800	11/15/2011 1:35:00 AM
2-Hexanone	ND	800		ppbv	800	11/15/2011 1:35:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Acetone	1,000	800		ppbv	800	11/15/2011 1:35:00 AM
Benzene	6,200	800		ppbv	800	11/15/2011 1:35:00 AM
Benzyl chloride	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Bromodichloromethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Bromoform	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Bromomethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Carbon disulfide	ND	800		ppbv	800	11/15/2011 1:35:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
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B	Analyte detected in the associated Method Blank
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PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 4:03:00 PM

Project: Kirtland AFB

Lab ID: 1111023-009 **Matrix:** AIR

Client Sample ID VA0773

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Chlorobenzene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Chlorodibromomethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Chloroethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Chloroform	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Chloromethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Cyclohexane	20,000	1,600		ppbv	800	11/15/2011 1:35:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Ethyl acetate	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Ethylbenzene	ND	1,600		ppbv	800	11/15/2011 1:35:00 AM
Heptane	3,300	800		ppbv	800	11/15/2011 1:35:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	11/15/2011 1:35:00 AM
m,p-Xylene	1,300	1,600	J	ppbv	800	11/15/2011 1:35:00 AM
Methylene chloride	ND	4,000		ppbv	800	11/15/2011 1:35:00 AM
Naphthalene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
n-Hexane	7,000	1,600		ppbv	800	11/15/2011 1:35:00 AM
o-Xylene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Propylene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Styrene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Tetrachloroethene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Tetrahydrofuran	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Toluene	6,900	800		ppbv	800	11/15/2011 1:35:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Trichloroethene	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Vinyl acetate	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Vinyl chloride	ND	800		ppbv	800	11/15/2011 1:35:00 AM
Xylenes, Total	1,300	2,400	J	ppbv	800	11/15/2011 1:35:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	800	11/15/2011 1:35:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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PL	Permit Limit
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RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 4:03:00 PM

Project: Kirtland AFB

Lab ID: 1111023-009 **Matrix:** AIR

Client Sample ID VA0773

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	440,000	47,000		µg/m³	400	11/10/2011 6:24:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 6:24:00 AM
C9-C12 Aliphatic Hydrocarbons	39,000	76,000	J	µg/m³	400	11/10/2011 6:24:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	11/10/2011 6:24:00 AM

Qualifiers:

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E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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PL	Permit Limit
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 9:12:00 AM

Project: Kirtland AFB

Lab ID: 1111023-010 **Matrix:** AIR

Client Sample ID VA0784

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.44	0.10		%	1	11/20/2011 9:56:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 9:56:00 PM
Methane	ND	0.50		%	1	11/20/2011 9:56:00 PM
Nitrogen	78	0.10		%	1	11/20/2011 9:56:00 PM
Oxygen	21	0.10		%	1	11/20/2011 9:56:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
2-Butanone	ND	400		ppbv	400	11/9/2011 6:10:00 AM
2-Hexanone	ND	400		ppbv	400	11/9/2011 6:10:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Acetone	850	400		ppbv	400	11/9/2011 6:10:00 AM
Benzene	1,800	400		ppbv	400	11/9/2011 6:10:00 AM
Benzyl chloride	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Bromoform	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Bromomethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Carbon disulfide	ND	400		ppbv	400	11/9/2011 6:10:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 9:12:00 AM

Project: Kirtland AFB

Lab ID: 1111023-010 **Matrix:** AIR

Client Sample ID VA0784

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Chlorobenzene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Chloroethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Chloroform	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Chloromethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Cyclohexane	2,900	800		ppbv	400	11/9/2011 6:10:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Ethyl acetate	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Ethylbenzene	ND	800		ppbv	400	11/9/2011 6:10:00 AM
Heptane	2,200	400		ppbv	400	11/9/2011 6:10:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/9/2011 6:10:00 AM
m,p-Xylene	630	800	J	ppbv	400	11/9/2011 6:10:00 AM
Methylene chloride	2,900	2,000		ppbv	400	11/9/2011 6:10:00 AM
Naphthalene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
n-Hexane	2,700	800		ppbv	400	11/9/2011 6:10:00 AM
o-Xylene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Propylene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Styrene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Toluene	3,900	400		ppbv	400	11/9/2011 6:10:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Trichloroethene	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Vinyl acetate	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Vinyl chloride	ND	400		ppbv	400	11/9/2011 6:10:00 AM
Xylenes, Total	630	1,200	J	ppbv	400	11/9/2011 6:10:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	11/9/2011 6:10:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 9:12:00 AM

Project: Kirtland AFB

Lab ID: 1111023-010 **Matrix:** AIR

Client Sample ID VA0784

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR						
AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	150,000	47,000		µg/m³	400	11/1/2011 6:35:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/1/2011 6:35:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/1/2011 6:35:00 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	400	11/1/2011 6:35:00 AM

Qualifiers:

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

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 9:49:00 AM

Project: Kirtland AFB

Lab ID: 1111023-011 **Matrix:** AIR

Client Sample ID VA0785

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.66	0.10		%	1	11/20/2011 10:15:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 10:15:00 PM
Methane	ND	0.50		%	1	11/20/2011 10:15:00 PM
Nitrogen	79	0.10		%	1	11/20/2011 10:15:00 PM
Oxygen	20	0.10		%	1	11/20/2011 10:15:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
2-Butanone	ND	400		ppbv	400	11/9/2011 6:58:00 AM
2-Hexanone	ND	400		ppbv	400	11/9/2011 6:58:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Acetone	680	400		ppbv	400	11/9/2011 6:58:00 AM
Benzene	1,500	400		ppbv	400	11/9/2011 6:58:00 AM
Benzyl chloride	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Bromoform	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Bromomethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Carbon disulfide	ND	400		ppbv	400	11/9/2011 6:58:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 9:49:00 AM

Project: Kirtland AFB

Lab ID: 1111023-011 **Matrix:** AIR

Client Sample ID VA0785

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Chlorobenzene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Chloroethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Chloroform	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Chloromethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Cyclohexane	2,700	800		ppbv	400	11/9/2011 6:58:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Ethyl acetate	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Ethylbenzene	ND	800		ppbv	400	11/9/2011 6:58:00 AM
Heptane	2,200	400		ppbv	400	11/9/2011 6:58:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/9/2011 6:58:00 AM
m,p-Xylene	720	800	J	ppbv	400	11/9/2011 6:58:00 AM
Methylene chloride	1,200	2,000	J	ppbv	400	11/9/2011 6:58:00 AM
Naphthalene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
n-Hexane	1,900	800		ppbv	400	11/9/2011 6:58:00 AM
o-Xylene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Propylene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Styrene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Toluene	4,200	400		ppbv	400	11/9/2011 6:58:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Trichloroethene	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Vinyl acetate	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Vinyl chloride	ND	400		ppbv	400	11/9/2011 6:58:00 AM
Xylenes, Total	720	1,200	J	ppbv	400	11/9/2011 6:58:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	11/9/2011 6:58:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 9:49:00 AM

Project: Kirtland AFB

Lab ID: 1111023-011 **Matrix:** AIR

Client Sample ID VA0785

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	11/1/2011 7:23:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/1/2011 7:23:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/1/2011 7:23:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	11/1/2011 7:23:00 AM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 10:30:00 AM

Project: Kirtland AFB

Lab ID: 1111023-012 **Matrix:** AIR

Client Sample ID VA0786

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.42	0.10		%	1	11/20/2011 10:34:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 10:34:00 PM
Methane	ND	0.50		%	1	11/20/2011 10:34:00 PM
Nitrogen	78	0.10		%	1	11/20/2011 10:34:00 PM
Oxygen	20	0.10		%	1	11/20/2011 10:34:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
2-Butanone	ND	400		ppbv	400	11/4/2011 5:40:00 PM
2-Hexanone	ND	400		ppbv	400	11/4/2011 5:40:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Acetone	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Benzene	1,400	400		ppbv	400	11/4/2011 5:40:00 PM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Bromoform	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Bromomethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 5:40:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 10:30:00 AM

Project: Kirtland AFB

Lab ID: 1111023-012 **Matrix:** AIR

Client Sample ID VA0786

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Chloroethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Chloroform	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Chloromethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Cyclohexane	3,800	800		ppbv	400	11/4/2011 5:40:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 5:40:00 PM
Heptane	2,100	400		ppbv	400	11/4/2011 5:40:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 5:40:00 PM
m,p-Xylene	740	800	J	ppbv	400	11/4/2011 5:40:00 PM
Methylene chloride	ND	2,000		ppbv	400	11/4/2011 5:40:00 PM
Naphthalene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
n-Hexane	3,200	800		ppbv	400	11/4/2011 5:40:00 PM
o-Xylene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Propylene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Styrene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Toluene	3,900	400		ppbv	400	11/4/2011 5:40:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Trichloroethene	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 5:40:00 PM
Xylenes, Total	740	1,200	J	ppbv	400	11/4/2011 5:40:00 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	11/4/2011 5:40:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 10:30:00 AM

Project: Kirtland AFB

Lab ID: 1111023-012 **Matrix:** AIR

Client Sample ID VA0786

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	220,000	47,000		µg/m³	400	11/4/2011 7:29:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/4/2011 7:29:00 AM
C9-C12 Aliphatic Hydrocarbons	14,000	76,000	J	µg/m³	400	11/4/2011 7:29:00 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	400	11/4/2011 7:29:00 AM

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 11:17:00 AM

Project: Kirtland AFB

Lab ID: 1111023-013 **Matrix:** AIR

Client Sample ID VA0787

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.27	0.10		%	1	11/20/2011 10:52:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 10:52:00 PM
Methane	ND	0.50		%	1	11/20/2011 10:52:00 PM
Nitrogen	78	0.10		%	1	11/20/2011 10:52:00 PM
Oxygen	21	0.10		%	1	11/20/2011 10:52:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
2-Butanone	ND	400		ppbv	400	11/9/2011 7:46:00 AM
2-Hexanone	ND	400		ppbv	400	11/9/2011 7:46:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Acetone	660	400		ppbv	400	11/9/2011 7:46:00 AM
Benzene	1,700	400		ppbv	400	11/9/2011 7:46:00 AM
Benzyl chloride	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Bromoform	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Bromomethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Carbon disulfide	ND	400		ppbv	400	11/9/2011 7:46:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 11:17:00 AM

Project: Kirtland AFB

Lab ID: 1111023-013 **Matrix:** AIR

Client Sample ID VA0787

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				TO-15		Analyst: RH3
Carbon tetrachloride	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Chlorobenzene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Chloroethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Chloroform	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Chloromethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Cyclohexane	1,900	800		ppbv	400	11/9/2011 7:46:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Ethyl acetate	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Ethylbenzene	ND	800		ppbv	400	11/9/2011 7:46:00 AM
Heptane	1,500	400		ppbv	400	11/9/2011 7:46:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/9/2011 7:46:00 AM
m,p-Xylene	640	800	J	ppbv	400	11/9/2011 7:46:00 AM
Methylene chloride	1,600	2,000	J	ppbv	400	11/9/2011 7:46:00 AM
Naphthalene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
n-Hexane	1,700	800		ppbv	400	11/9/2011 7:46:00 AM
o-Xylene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Propylene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Styrene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Toluene	3,800	400		ppbv	400	11/9/2011 7:46:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Trichloroethene	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Vinyl acetate	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Vinyl chloride	ND	400		ppbv	400	11/9/2011 7:46:00 AM
Xylenes, Total	640	1,200	J	ppbv	400	11/9/2011 7:46:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	11/9/2011 7:46:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
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J	Estimated concentration
ND	Not Detected at the Reporting Limit
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H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 11:17:00 AM

Project: Kirtland AFB

Lab ID: 1111023-013 **Matrix:** AIR

Client Sample ID VA0787

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	11/10/2011 1:13:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 1:13:00 AM
C9-C12 Aliphatic Hydrocarbons	11,000	76,000	J	µg/m³	400	11/10/2011 1:13:00 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	11/10/2011 1:13:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 12:00:00 PM

Project: Kirtland AFB

Lab ID: 1111023-014 **Matrix:** AIR

Client Sample ID VA0788

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.15	0.10		%	1	11/20/2011 11:17:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 11:17:00 PM
Methane	ND	0.50		%	1	11/20/2011 11:17:00 PM
Nitrogen	79	0.10		%	1	11/20/2011 11:17:00 PM
Oxygen	21	0.10		%	1	11/20/2011 11:17:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
2-Butanone	ND	400		ppbv	400	11/9/2011 8:34:00 AM
2-Hexanone	ND	400		ppbv	400	11/9/2011 8:34:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Acetone	600	400		ppbv	400	11/9/2011 8:34:00 AM
Benzene	2,400	400		ppbv	400	11/9/2011 8:34:00 AM
Benzyl chloride	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Bromoform	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Bromomethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Carbon disulfide	ND	400		ppbv	400	11/9/2011 8:34:00 AM

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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 12:00:00 PM

Project: Kirtland AFB

Lab ID: 1111023-014 **Matrix:** AIR

Client Sample ID VA0788

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Chlorobenzene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Chloroethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Chloroform	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Chloromethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Cyclohexane	4,500	800		ppbv	400	11/9/2011 8:34:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Ethyl acetate	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Ethylbenzene	ND	800		ppbv	400	11/9/2011 8:34:00 AM
Heptane	2,600	400		ppbv	400	11/9/2011 8:34:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/9/2011 8:34:00 AM
m,p-Xylene	740	800	J	ppbv	400	11/9/2011 8:34:00 AM
Methylene chloride	ND	2,000		ppbv	400	11/9/2011 8:34:00 AM
Naphthalene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
n-Hexane	4,700	800		ppbv	400	11/9/2011 8:34:00 AM
o-Xylene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Propylene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Styrene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Toluene	5,100	400		ppbv	400	11/9/2011 8:34:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Trichloroethene	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Vinyl acetate	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Vinyl chloride	ND	400		ppbv	400	11/9/2011 8:34:00 AM
Xylenes, Total	740	1,200	J	ppbv	400	11/9/2011 8:34:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	11/9/2011 8:34:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 12:00:00 PM

Project: Kirtland AFB

Lab ID: 1111023-014 **Matrix:** AIR

Client Sample ID VA0788

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	250,000	47,000		µg/m³	400	11/10/2011 2:04:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 2:04:00 AM
C9-C12 Aliphatic Hydrocarbons	22,000	76,000	J	µg/m³	400	11/10/2011 2:04:00 AM
Surr: 4-Bromofluorobenzene	86.3	70-130		%REC	400	11/10/2011 2:04:00 AM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 1:01:00 PM

Project: Kirtland AFB

Lab ID: 1111023-015 **Matrix:** AIR

Client Sample ID VA0789

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.098	0.10	J	%	1	11/20/2011 11:35:00 PM
Carbon Monoxide	ND	0.10		%	1	11/20/2011 11:35:00 PM
Methane	ND	0.50		%	1	11/20/2011 11:35:00 PM
Nitrogen	78	0.10		%	1	11/20/2011 11:35:00 PM
Oxygen	21	0.10		%	1	11/20/2011 11:35:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,3-Butadiene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
2-Butanone	ND	800		ppbv	800	11/9/2011 11:46:00 AM
2-Hexanone	ND	800		ppbv	800	11/9/2011 11:46:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Acetone	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Benzene	980	800		ppbv	800	11/9/2011 11:46:00 AM
Benzyl chloride	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Bromodichloromethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Bromoform	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Bromomethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Carbon disulfide	ND	800		ppbv	800	11/9/2011 11:46:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 1:01:00 PM

Project: Kirtland AFB

Lab ID: 1111023-015 **Matrix:** AIR

Client Sample ID VA0789

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Chlorobenzene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Chlorodibromomethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Chloroethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Chloroform	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Chloromethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Cyclohexane	6,500	1,600		ppbv	800	11/9/2011 11:46:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Ethyl acetate	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Ethylbenzene	ND	1,600		ppbv	800	11/9/2011 11:46:00 AM
Heptane	3,000	800		ppbv	800	11/9/2011 11:46:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	11/9/2011 11:46:00 AM
m,p-Xylene	ND	1,600		ppbv	800	11/9/2011 11:46:00 AM
Methylene chloride	ND	4,000		ppbv	800	11/9/2011 11:46:00 AM
Naphthalene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
n-Hexane	9,800	1,600		ppbv	800	11/9/2011 11:46:00 AM
o-Xylene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Propylene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Styrene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Tetrachloroethene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Tetrahydrofuran	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Toluene	2,400	800		ppbv	800	11/9/2011 11:46:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Trichloroethene	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Vinyl acetate	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Vinyl chloride	ND	800		ppbv	800	11/9/2011 11:46:00 AM
Xylenes, Total	ND	2,400		ppbv	800	11/9/2011 11:46:00 AM
Surr: 4-Bromofluorobenzene	121	70-130		%REC	800	11/9/2011 11:46:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/24/2011 1:01:00 PM

Project: Kirtland AFB

Lab ID: 1111023-015 **Matrix:** AIR

Client Sample ID VA0789

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	620,000	47,000		µg/m³	400	11/10/2011 3:01:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 3:01:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/10/2011 3:01:00 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	11/10/2011 3:01:00 AM

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:22:00 AM

Project: Kirtland AFB

Lab ID: 1111023-016 **Matrix:** AIR

Client Sample ID VA0844

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.37	0.10		%	1	11/17/2011 4:38:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 4:38:00 PM
Methane	ND	0.50		%	1	11/17/2011 4:38:00 PM
Nitrogen	78	0.10		%	1	11/17/2011 4:38:00 PM
Oxygen	22	0.10		%	1	11/17/2011 4:38:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,1,2,2-Tetrachloroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,1,2-Trichloroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,1-Dichloroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,1-Dichloroethene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,2,4-Trichlorobenzene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,2,4-Trimethylbenzene	82	40		ppbv	40	11/9/2011 3:11:00 PM
1,2-Dibromoethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,2-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,2-Dichloroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,2-Dichloropropane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,3,5-Trimethylbenzene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,3-Butadiene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,3-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
1,4-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
2-Butanone	ND	40		ppbv	40	11/9/2011 3:11:00 PM
2-Hexanone	ND	40		ppbv	40	11/9/2011 3:11:00 PM
4-Methyl-2-pentanone	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Acetone	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Benzene	410	40		ppbv	40	11/9/2011 3:11:00 PM
Benzyl chloride	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Bromodichloromethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Bromoform	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Bromomethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Carbon disulfide	ND	40		ppbv	40	11/9/2011 3:11:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:22:00 AM

Project: Kirtland AFB

Lab ID: 1111023-016 **Matrix:** AIR

Client Sample ID VA0844

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Chlorobenzene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Chlorodibromomethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Chloroethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Chloroform	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Chloromethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
cis-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
cis-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Cyclohexane	1,100	80		ppbv	40	11/9/2011 3:11:00 PM
Dichlorodifluoromethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Ethyl acetate	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Ethylbenzene	110	80		ppbv	40	11/9/2011 3:11:00 PM
Heptane	640	40		ppbv	40	11/9/2011 3:11:00 PM
Hexachlorobutadiene	ND	80		ppbv	40	11/9/2011 3:11:00 PM
m,p-Xylene	320	80		ppbv	40	11/9/2011 3:11:00 PM
Methylene chloride	ND	200		ppbv	40	11/9/2011 3:11:00 PM
Naphthalene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
n-Hexane	410	80		ppbv	40	11/9/2011 3:11:00 PM
o-Xylene	110	40		ppbv	40	11/9/2011 3:11:00 PM
Propylene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Styrene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
tert-Butyl Methyl Ether	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Tetrachloroethene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Tetrahydrofuran	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Toluene	1,500	40		ppbv	40	11/9/2011 3:11:00 PM
trans-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
trans-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Trichloroethene	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Trichlorofluoromethane	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Vinyl acetate	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Vinyl chloride	ND	40		ppbv	40	11/9/2011 3:11:00 PM
Xylenes, Total	440	120		ppbv	40	11/9/2011 3:11:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	11/9/2011 3:11:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:22:00 AM

Project: Kirtland AFB

Lab ID: 1111023-016 **Matrix:** AIR

Client Sample ID VA0844

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: RH3
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	11/1/2011 8:12:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/1/2011 8:12:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/1/2011 8:12:00 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	11/1/2011 8:12:00 AM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/19/2011 9:54:00 AM
Project: Kirtland AFB
Lab ID: 1111023-017
Matrix: AIR
Client Sample ID VA0845

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.2	0.10		%	1	11/17/2011 5:26:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 5:26:00 PM
Methane	ND	0.50		%	1	11/17/2011 5:26:00 PM
Nitrogen	79	0.10		%	1	11/17/2011 5:26:00 PM
Oxygen	19	0.10		%	1	11/17/2011 5:26:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 5:31:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 5:31:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Acetone	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Benzene	570	400		ppbv	400	11/4/2011 5:31:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 5:31:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:54:00 AM

Project: Kirtland AFB

Lab ID: 1111023-017 **Matrix:** AIR

Client Sample ID VA0845

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Cyclohexane	1,700	800		ppbv	400	11/4/2011 5:31:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 5:31:00 AM
Heptane	1,100	400		ppbv	400	11/4/2011 5:31:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 5:31:00 AM
m,p-Xylene	560	800	J	ppbv	400	11/4/2011 5:31:00 AM
Methylene chloride	ND	2,000		ppbv	400	11/4/2011 5:31:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
n-Hexane	790	800	J	ppbv	400	11/4/2011 5:31:00 AM
o-Xylene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Propylene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Toluene	1,800	400		ppbv	400	11/4/2011 5:31:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 5:31:00 AM
Xylenes, Total	560	1,200	J	ppbv	400	11/4/2011 5:31:00 AM
Surr: 4-Bromofluorobenzene	130	70-130	S	%REC	400	11/4/2011 5:31:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
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RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:54:00 AM

Project: Kirtland AFB

Lab ID: 1111023-017 **Matrix:** AIR

Client Sample ID VA0845

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	110,000	47,000		µg/m³	400	11/10/2011 2:18:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 2:18:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/10/2011 2:18:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	11/10/2011 2:18:00 PM

Qualifiers:

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RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:54:00 AM

Project: Kirtland AFB

Lab ID: 1111023-018 **Matrix:** AIR

Client Sample ID VA0846

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.6	0.10		%	1	11/17/2011 5:47:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 5:47:00 PM
Methane	ND	0.50		%	1	11/17/2011 5:47:00 PM
Nitrogen	79	0.10		%	1	11/17/2011 5:47:00 PM
Oxygen	18	0.10		%	1	11/17/2011 5:47:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,1,2,2-Tetrachloroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,1,2-Trichloroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,1-Dichloroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,1-Dichloroethene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,2,4-Trichlorobenzene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,2,4-Trimethylbenzene	77	40		ppbv	40	11/9/2011 1:53:00 AM
1,2-Dibromoethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,2-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,2-Dichloroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,2-Dichloropropane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,3,5-Trimethylbenzene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,3-Butadiene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,3-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
1,4-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
2-Butanone	ND	40		ppbv	40	11/9/2011 1:53:00 AM
2-Hexanone	ND	40		ppbv	40	11/9/2011 1:53:00 AM
4-Methyl-2-pentanone	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Acetone	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Benzene	350	40		ppbv	40	11/9/2011 1:53:00 AM
Benzyl chloride	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Bromodichloromethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Bromoform	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Bromomethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Carbon disulfide	ND	40		ppbv	40	11/9/2011 1:53:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:54:00 AM

Project: Kirtland AFB

Lab ID: 1111023-018 **Matrix:** AIR

Client Sample ID VA0846

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Chlorobenzene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Chlorodibromomethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Chloroethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Chloroform	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Chloromethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
cis-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
cis-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Cyclohexane	1,100	80		ppbv	40	11/9/2011 1:53:00 AM
Dichlorodifluoromethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Ethyl acetate	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Ethylbenzene	110	80		ppbv	40	11/9/2011 1:53:00 AM
Heptane	700	40		ppbv	40	11/9/2011 1:53:00 AM
Hexachlorobutadiene	ND	80		ppbv	40	11/9/2011 1:53:00 AM
m,p-Xylene	320	80		ppbv	40	11/9/2011 1:53:00 AM
Methylene chloride	ND	200		ppbv	40	11/9/2011 1:53:00 AM
Naphthalene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
n-Hexane	410	80		ppbv	40	11/9/2011 1:53:00 AM
o-Xylene	110	40		ppbv	40	11/9/2011 1:53:00 AM
Propylene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Styrene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
tert-Butyl Methyl Ether	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Tetrachloroethene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Tetrahydrofuran	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Toluene	1,300	40		ppbv	40	11/9/2011 1:53:00 AM
trans-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
trans-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Trichloroethene	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Trichlorofluoromethane	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Vinyl acetate	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Vinyl chloride	ND	40		ppbv	40	11/9/2011 1:53:00 AM
Xylenes, Total	430	120		ppbv	40	11/9/2011 1:53:00 AM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	40	11/9/2011 1:53:00 AM

Qualifiers:

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

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 9:54:00 AM

Project: Kirtland AFB

Lab ID: 1111023-018 **Matrix:** AIR

Client Sample ID VA0846

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: RH3
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	120,000	47,000		µg/m³	400	11/10/2011 3:08:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 3:08:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/10/2011 3:08:00 PM
Surr: 4-Bromofluorobenzene	99.2	70-130		%REC	400	11/10/2011 3:08:00 PM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 10:47:00 AM

Project: Kirtland AFB

Lab ID: 1111023-019 **Matrix:** AIR

Client Sample ID VA0847

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	3.7	0.10		%	1	11/17/2011 6:45:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 6:45:00 PM
Methane	ND	0.50		%	1	11/17/2011 6:45:00 PM
Nitrogen	83	0.10		%	1	11/17/2011 6:45:00 PM
Oxygen	14	0.10		%	1	11/17/2011 6:45:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,1,2,2-Tetrachloroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,1,2-Trichloroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,1-Dichloroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,1-Dichloroethene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,2,4-Trichlorobenzene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,2,4-Trimethylbenzene	48	40		ppbv	40	11/9/2011 2:34:00 AM
1,2-Dibromoethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,2-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,2-Dichloroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,2-Dichloropropane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,3,5-Trimethylbenzene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,3-Butadiene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,3-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
1,4-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
2-Butanone	ND	40		ppbv	40	11/9/2011 2:34:00 AM
2-Hexanone	ND	40		ppbv	40	11/9/2011 2:34:00 AM
4-Methyl-2-pentanone	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Acetone	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Benzene	1,100	40		ppbv	40	11/9/2011 2:34:00 AM
Benzyl chloride	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Bromodichloromethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Bromoform	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Bromomethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Carbon disulfide	ND	40		ppbv	40	11/9/2011 2:34:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 10:47:00 AM

Project: Kirtland AFB

Lab ID: 1111023-019 **Matrix:** AIR

Client Sample ID VA0847

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Chlorobenzene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Chlorodibromomethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Chloroethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Chloroform	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Chloromethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
cis-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
cis-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Cyclohexane	10,000	1,600		ppbv	800	11/15/2011 12:52:00 PM
Dichlorodifluoromethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Ethyl acetate	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Ethylbenzene	58	80	J	ppbv	40	11/9/2011 2:34:00 AM
Heptane	980	40		ppbv	40	11/9/2011 2:34:00 AM
Hexachlorobutadiene	ND	80		ppbv	40	11/9/2011 2:34:00 AM
m,p-Xylene	140	80		ppbv	40	11/9/2011 2:34:00 AM
Methylene chloride	ND	200		ppbv	40	11/9/2011 2:34:00 AM
Naphthalene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
n-Hexane	5,200	1,600		ppbv	800	11/15/2011 12:52:00 PM
o-Xylene	49	40		ppbv	40	11/9/2011 2:34:00 AM
Propylene	46	40		ppbv	40	11/9/2011 2:34:00 AM
Styrene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
tert-Butyl Methyl Ether	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Tetrachloroethene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Tetrahydrofuran	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Toluene	370	40		ppbv	40	11/9/2011 2:34:00 AM
trans-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
trans-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Trichloroethene	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Trichlorofluoromethane	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Vinyl acetate	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Vinyl chloride	ND	40		ppbv	40	11/9/2011 2:34:00 AM
Xylenes, Total	190	120		ppbv	40	11/9/2011 2:34:00 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	40	11/9/2011 2:34:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
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Analytical Report

(consolidated)

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Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 10:47:00 AM

Project: Kirtland AFB

Lab ID: 1111023-019 **Matrix:** AIR

Client Sample ID VA0847

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR						
AIR-PHASE PETROLEUM HYDROCARBONS				MA_APH		Analyst: RH3
C5-C8 Aliphatic Hydrocarbons	670,000	47,000		µg/m³	400	11/10/2011 3:58:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 3:58:00 PM
C9-C12 Aliphatic Hydrocarbons	30,000	76,000	J	µg/m³	400	11/10/2011 3:58:00 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	400	11/10/2011 3:58:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 11:26:00 AM

Project: Kirtland AFB

Lab ID: 1111023-020 **Matrix:** AIR

Client Sample ID VA0848

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.62	0.10		%	1	11/17/2011 7:08:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 7:08:00 PM
Methane	ND	0.50		%	1	11/17/2011 7:08:00 PM
Nitrogen	80	0.10		%	1	11/17/2011 7:08:00 PM
Oxygen	19	0.10		%	1	11/17/2011 7:08:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,3-Butadiene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
2-Butanone	ND	800		ppbv	800	11/9/2011 4:42:00 PM
2-Hexanone	ND	800		ppbv	800	11/9/2011 4:42:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Acetone	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Benzene	8,400	800		ppbv	800	11/9/2011 4:42:00 PM
Benzyl chloride	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Bromodichloromethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Bromoform	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Bromomethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Carbon disulfide	ND	800		ppbv	800	11/9/2011 4:42:00 PM

Qualifiers:

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

Revision v1

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 11:26:00 AM

Project: Kirtland AFB

Lab ID: 1111023-020 **Matrix:** AIR

Client Sample ID VA0848

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Chlorobenzene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Chlorodibromomethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Chloroethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Chloroform	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Chloromethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Cyclohexane	6,700	1,600		ppbv	800	11/9/2011 4:42:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Ethyl acetate	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Ethylbenzene	ND	1,600		ppbv	800	11/9/2011 4:42:00 PM
Heptane	2,400	800		ppbv	800	11/9/2011 4:42:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	11/9/2011 4:42:00 PM
m,p-Xylene	ND	1,600		ppbv	800	11/9/2011 4:42:00 PM
Methylene chloride	ND	4,000		ppbv	800	11/9/2011 4:42:00 PM
Naphthalene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
n-Hexane	5,800	1,600		ppbv	800	11/9/2011 4:42:00 PM
o-Xylene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Propylene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Styrene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Tetrachloroethene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Tetrahydrofuran	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Toluene	12,000	800		ppbv	800	11/9/2011 4:42:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Trichloroethene	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Vinyl acetate	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Vinyl chloride	ND	800		ppbv	800	11/9/2011 4:42:00 PM
Xylenes, Total	ND	2,400		ppbv	800	11/9/2011 4:42:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	800	11/9/2011 4:42:00 PM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 11:26:00 AM

Project: Kirtland AFB

Lab ID: 1111023-020 **Matrix:** AIR

Client Sample ID VA0848

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	440,000	94,000		µg/m³	800	11/10/2011 4:45:00 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	11/10/2011 4:45:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	11/10/2011 4:45:00 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	800	11/10/2011 4:45:00 PM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/19/2011 12:04:00 PM
Project: Kirtland AFB
Lab ID: 1111023-021
Matrix: AIR
Client Sample ID VA0849

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.37	0.10		%	1	11/17/2011 7:28:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 7:28:00 PM
Methane	ND	0.50		%	1	11/17/2011 7:28:00 PM
Nitrogen	79	0.10		%	1	11/17/2011 7:28:00 PM
Oxygen	20	0.10		%	1	11/17/2011 7:28:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
2-Butanone	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
2-Hexanone	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Acetone	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Benzene	20,000	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Bromoform	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Bromomethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 12:04:00 PM

Project: Kirtland AFB

Lab ID: 1111023-021 **Matrix:** AIR

Client Sample ID VA0849

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Chloroethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Chloroform	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Chloromethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Cyclohexane	48,000	16,000		ppbv	8000	11/4/2011 8:54:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	11/4/2011 8:54:00 AM
Heptane	35,000	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/4/2011 8:54:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	11/4/2011 8:54:00 AM
Methylene chloride	ND	40,000		ppbv	8000	11/4/2011 8:54:00 AM
Naphthalene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
n-Hexane	32,000	16,000		ppbv	8000	11/4/2011 8:54:00 AM
o-Xylene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Propylene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Styrene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Toluene	47,000	8,000		ppbv	8000	11/4/2011 8:54:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Trichloroethene	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	11/4/2011 8:54:00 AM
Xylenes, Total	ND	24,000		ppbv	8000	11/4/2011 8:54:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	8000	11/4/2011 8:54:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 12:04:00 PM

Project: Kirtland AFB

Lab ID: 1111023-021 **Matrix:** AIR

Client Sample ID VA0849

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR						
AIR-PHASE PETROLEUM HYDROCARBONS				MA_APH		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	3,100,000	940,000		µg/m³	8000	11/10/2011 5:28:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	11/10/2011 5:28:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	11/10/2011 5:28:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	11/10/2011 5:28:00 PM

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

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 1:07:00 PM

Project: Kirtland AFB

Lab ID: 1111023-022 **Matrix:** AIR

Client Sample ID VA0850

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.4	0.10		%	1	11/17/2011 7:54:00 PM
Carbon Monoxide	ND	0.10		%	1	11/17/2011 7:54:00 PM
Methane	ND	0.50		%	1	11/17/2011 7:54:00 PM
Nitrogen	81	0.10		%	1	11/17/2011 7:54:00 PM
Oxygen	17	0.10		%	1	11/17/2011 7:54:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
2-Butanone	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
2-Hexanone	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Acetone	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Benzene	200,000	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Bromoform	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Bromomethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/19/2011 1:07:00 PM

Project: Kirtland AFB

Lab ID: 1111023-022 **Matrix:** AIR

Client Sample ID VA0850

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Chloroethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Chloroform	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Chloromethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Cyclohexane	510,000	16,000		ppbv	8000	11/4/2011 9:35:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	11/4/2011 9:35:00 AM
Heptane	190,000	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/4/2011 9:35:00 AM
m,p-Xylene	19,000	16,000		ppbv	8000	11/4/2011 9:35:00 AM
Methylene chloride	ND	40,000		ppbv	8000	11/4/2011 9:35:00 AM
Naphthalene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
n-Hexane	400,000	16,000		ppbv	8000	11/4/2011 9:35:00 AM
o-Xylene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Propylene	14,000	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Styrene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Toluene	260,000	8,000		ppbv	8000	11/4/2011 9:35:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Trichloroethene	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	11/4/2011 9:35:00 AM
Xylenes, Total	19,000	24,000	J	ppbv	8000	11/4/2011 9:35:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8000	11/4/2011 9:35:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/19/2011 1:07:00 PM
Project: Kirtland AFB
Lab ID: 1111023-022
Matrix: AIR
Client Sample ID VA0850

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: RH3
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	17,000,000	940,000		µg/m³	8000	11/10/2011 7:06:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	11/10/2011 7:06:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	11/10/2011 7:06:00 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	8000	11/10/2011 7:06:00 AM

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

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
Lab ID: 1111023-023
Client Sample ID VA0864

Collection Date: 10/18/2011 12:45:00 PM
Matrix: AIR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.73	0.10		%	1	11/16/2011 3:22:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 3:22:00 PM
Methane	ND	0.50		%	1	11/16/2011 3:22:00 PM
Nitrogen	78	0.10		%	1	11/16/2011 3:22:00 PM
Oxygen	20	0.10		%	1	11/16/2011 3:22:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,2,4-Trimethylbenzene	570	400		ppbv	400	11/4/2011 12:02:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 12:02:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 12:02:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Acetone	740	400		ppbv	400	11/4/2011 12:02:00 AM
Benzene	940	400		ppbv	400	11/4/2011 12:02:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 12:02:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 12:45:00 PM

Project: Kirtland AFB

Lab ID: 1111023-023 **Matrix:** AIR

Client Sample ID VA0864

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Cyclohexane	3,000	800		ppbv	400	11/4/2011 12:02:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 12:02:00 AM
Heptane	1,900	400		ppbv	400	11/4/2011 12:02:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 12:02:00 AM
m,p-Xylene	1,100	800		ppbv	400	11/4/2011 12:02:00 AM
Methylene chloride	2,000	2,000	J	ppbv	400	11/4/2011 12:02:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
n-Hexane	1,500	800		ppbv	400	11/4/2011 12:02:00 AM
o-Xylene	480	400		ppbv	400	11/4/2011 12:02:00 AM
Propylene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Toluene	3,400	400		ppbv	400	11/4/2011 12:02:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 12:02:00 AM
Xylenes, Total	1,600	1,200		ppbv	400	11/4/2011 12:02:00 AM
Surr: 4-Bromofluorobenzene	127	70-130		%REC	400	11/4/2011 12:02:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 12:45:00 PM

Project: Kirtland AFB

Lab ID: 1111023-023 **Matrix:** AIR

Client Sample ID VA0864

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: RH3
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	160,000	47,000		µg/m³	400	11/10/2011 8:37:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 8:37:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	11/10/2011 8:37:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	11/10/2011 8:37:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 1:19:00 PM

Project: Kirtland AFB

Lab ID: 1111023-024 **Matrix:** AIR

Client Sample ID VA0865

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.39	0.10		%	1	11/16/2011 3:45:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 3:45:00 PM
Methane	ND	0.50		%	1	11/16/2011 3:45:00 PM
Nitrogen	77	0.10		%	1	11/16/2011 3:45:00 PM
Oxygen	21	0.10		%	1	11/16/2011 3:45:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 12:49:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 12:49:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Acetone	760	400		ppbv	400	11/4/2011 12:49:00 AM
Benzene	620	400		ppbv	400	11/4/2011 12:49:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 12:49:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 1:19:00 PM

Project: Kirtland AFB

Lab ID: 1111023-024 **Matrix:** AIR

Client Sample ID VA0865

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Cyclohexane	2,000	800		ppbv	400	11/4/2011 12:49:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 12:49:00 AM
Heptane	1,200	400		ppbv	400	11/4/2011 12:49:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 12:49:00 AM
m,p-Xylene	610	800	J	ppbv	400	11/4/2011 12:49:00 AM
Methylene chloride	2,700	2,000		ppbv	400	11/4/2011 12:49:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
n-Hexane	1,000	800		ppbv	400	11/4/2011 12:49:00 AM
o-Xylene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Propylene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Tetrahydrofuran	540	400		ppbv	400	11/4/2011 12:49:00 AM
Toluene	2,200	400		ppbv	400	11/4/2011 12:49:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 12:49:00 AM
Xylenes, Total	610	1,200	J	ppbv	400	11/4/2011 12:49:00 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	11/4/2011 12:49:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 1:19:00 PM

Project: Kirtland AFB

Lab ID: 1111023-024 **Matrix:** AIR

Client Sample ID VA0865

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	140,000	47,000		µg/m³	400	11/10/2011 9:26:00 AM
C9-C10 Aromatic Hydrocarbons	27,000	53,000	J	µg/m³	400	11/10/2011 9:26:00 AM
C9-C12 Aliphatic Hydrocarbons	13,000	76,000	J	µg/m³	400	11/10/2011 9:26:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	11/10/2011 9:26:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 1:52:00 PM

Project: Kirtland AFB

Lab ID: 1111023-025 **Matrix:** AIR

Client Sample ID VA0866

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.18	0.10		%	1	11/16/2011 4:35:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 4:35:00 PM
Methane	ND	0.50		%	1	11/16/2011 4:35:00 PM
Nitrogen	79	0.10		%	1	11/16/2011 4:35:00 PM
Oxygen	21	0.10		%	1	11/16/2011 4:35:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,1,2,2-Tetrachloroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,1,2-Trichloroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,1-Dichloroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,1-Dichloroethene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,2,4-Trichlorobenzene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,2,4-Trimethylbenzene	77	40		ppbv	40	11/8/2011 11:46:00 PM
1,2-Dibromoethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,2-Dichlorobenzene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,2-Dichloroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,2-Dichloropropane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,3,5-Trimethylbenzene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,3-Butadiene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,3-Dichlorobenzene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
1,4-Dichlorobenzene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
2-Butanone	ND	40		ppbv	40	11/8/2011 11:46:00 PM
2-Hexanone	ND	40		ppbv	40	11/8/2011 11:46:00 PM
4-Methyl-2-pentanone	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Acetone	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Benzene	64	40		ppbv	40	11/8/2011 11:46:00 PM
Benzyl chloride	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Bromodichloromethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Bromoform	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Bromomethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Carbon disulfide	ND	40		ppbv	40	11/8/2011 11:46:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 1:52:00 PM

Project: Kirtland AFB

Lab ID: 1111023-025 **Matrix:** AIR

Client Sample ID VA0866

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Chlorobenzene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Chlorodibromomethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Chloroethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Chloroform	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Chloromethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
cis-1,2-Dichloroethene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
cis-1,3-dichloropropene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Cyclohexane	140	80		ppbv	40	11/8/2011 11:46:00 PM
Dichlorodifluoromethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Ethyl acetate	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Ethylbenzene	55	80	J	ppbv	40	11/8/2011 11:46:00 PM
Heptane	140	40		ppbv	40	11/8/2011 11:46:00 PM
Hexachlorobutadiene	ND	80		ppbv	40	11/8/2011 11:46:00 PM
m,p-Xylene	190	80		ppbv	40	11/8/2011 11:46:00 PM
Methylene chloride	ND	200		ppbv	40	11/8/2011 11:46:00 PM
Naphthalene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
n-Hexane	72	80	J	ppbv	40	11/8/2011 11:46:00 PM
o-Xylene	68	40		ppbv	40	11/8/2011 11:46:00 PM
Propylene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Styrene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
tert-Butyl Methyl Ether	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Tetrachloroethene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Tetrahydrofuran	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Toluene	380	40		ppbv	40	11/8/2011 11:46:00 PM
trans-1,2-Dichloroethene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
trans-1,3-dichloropropene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Trichloroethene	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Trichlorofluoromethane	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Vinyl acetate	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Vinyl chloride	ND	40		ppbv	40	11/8/2011 11:46:00 PM
Xylenes, Total	250	120		ppbv	40	11/8/2011 11:46:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	11/8/2011 11:46:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
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PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 1:52:00 PM

Project: Kirtland AFB

Lab ID: 1111023-025 **Matrix:** AIR

Client Sample ID VA0866

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR						
AIR-PHASE PETROLEUM HYDROCARBONS				MA_APH		Analyst: RH3
C5-C8 Aliphatic Hydrocarbons	9,900	4,700		µg/m³	40	11/10/2011 7:38:00 PM
C9-C10 Aromatic Hydrocarbons	1,700	5,300	J	µg/m³	40	11/10/2011 7:38:00 PM
C9-C12 Aliphatic Hydrocarbons	6,400	7,600	J	µg/m³	40	11/10/2011 7:38:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	40	11/10/2011 7:38:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 2:28:00 PM

Project: Kirtland AFB

Lab ID: 1111023-026 **Matrix:** AIR

Client Sample ID VA0867

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	11/16/2011 5:13:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 5:13:00 PM
Methane	ND	0.50		%	1	11/16/2011 5:13:00 PM
Nitrogen	78	0.10		%	1	11/16/2011 5:13:00 PM
Oxygen	21	0.10		%	1	11/16/2011 5:13:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,1,2,2-Tetrachloroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,1,2-Trichloroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,1-Dichloroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,1-Dichloroethene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,2,4-Trichlorobenzene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,2,4-Trimethylbenzene	83	40		ppbv	40	11/9/2011 12:27:00 AM
1,2-Dibromoethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,2-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,2-Dichloroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,2-Dichloropropane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,3,5-Trimethylbenzene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,3-Butadiene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,3-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
1,4-Dichlorobenzene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
2-Butanone	ND	40		ppbv	40	11/9/2011 12:27:00 AM
2-Hexanone	ND	40		ppbv	40	11/9/2011 12:27:00 AM
4-Methyl-2-pentanone	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Acetone	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Benzene	120	40		ppbv	40	11/9/2011 12:27:00 AM
Benzyl chloride	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Bromodichloromethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Bromoform	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Bromomethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Carbon disulfide	ND	40		ppbv	40	11/9/2011 12:27:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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Analytical Report

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WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 2:28:00 PM

Project: Kirtland AFB

Lab ID: 1111023-026 **Matrix:** AIR

Client Sample ID VA0867

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Chlorobenzene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Chlorodibromomethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Chloroethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Chloroform	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Chloromethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
cis-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
cis-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Cyclohexane	380	80		ppbv	40	11/9/2011 12:27:00 AM
Dichlorodifluoromethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Ethyl acetate	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Ethylbenzene	73	80	J	ppbv	40	11/9/2011 12:27:00 AM
Heptane	260	40		ppbv	40	11/9/2011 12:27:00 AM
Hexachlorobutadiene	ND	80		ppbv	40	11/9/2011 12:27:00 AM
m,p-Xylene	240	80		ppbv	40	11/9/2011 12:27:00 AM
Methylene chloride	ND	200		ppbv	40	11/9/2011 12:27:00 AM
Naphthalene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
n-Hexane	220	80		ppbv	40	11/9/2011 12:27:00 AM
o-Xylene	84	40		ppbv	40	11/9/2011 12:27:00 AM
Propylene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Styrene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
tert-Butyl Methyl Ether	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Tetrachloroethene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Tetrahydrofuran	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Toluene	600	40		ppbv	40	11/9/2011 12:27:00 AM
trans-1,2-Dichloroethene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
trans-1,3-dichloropropene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Trichloroethene	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Trichlorofluoromethane	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Vinyl acetate	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Vinyl chloride	ND	40		ppbv	40	11/9/2011 12:27:00 AM
Xylenes, Total	320	120		ppbv	40	11/9/2011 12:27:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	11/9/2011 12:27:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
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B	Analyte detected in the associated Method Blank
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 2:28:00 PM

Project: Kirtland AFB

Lab ID: 1111023-026 **Matrix:** AIR

Client Sample ID VA0867

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	15,000	4,700		µg/m³	40	11/10/2011 8:21:00 PM
C9-C10 Aromatic Hydrocarbons	1,700	5,300	J	µg/m³	40	11/10/2011 8:21:00 PM
C9-C12 Aliphatic Hydrocarbons	5,500	7,600	J	µg/m³	40	11/10/2011 8:21:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	40	11/10/2011 8:21:00 PM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 3:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-027 **Matrix:** AIR

Client Sample ID VA0868

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.19	0.10		%	1	11/16/2011 6:12:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 6:12:00 PM
Methane	ND	0.50		%	1	11/16/2011 6:12:00 PM
Nitrogen	79	0.10		%	1	11/16/2011 6:12:00 PM
Oxygen	20	0.10		%	1	11/16/2011 6:12:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 3:10:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 3:10:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Acetone	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Benzene	1,700	400		ppbv	400	11/4/2011 3:10:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 3:10:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

RTI
31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 3:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-027 **Matrix:** AIR

Client Sample ID VA0868

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Cyclohexane	7,000	800		ppbv	400	11/4/2011 3:10:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 3:10:00 AM
Heptane	960	400		ppbv	400	11/4/2011 3:10:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 3:10:00 AM
m,p-Xylene	520	800	J	ppbv	400	11/4/2011 3:10:00 AM
Methylene chloride	ND	2,000		ppbv	400	11/4/2011 3:10:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
n-Hexane	6,300	800		ppbv	400	11/4/2011 3:10:00 AM
o-Xylene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Propylene	670	400		ppbv	400	11/4/2011 3:10:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Toluene	3,500	400		ppbv	400	11/4/2011 3:10:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 3:10:00 AM
Xylenes, Total	520	1,200	J	ppbv	400	11/4/2011 3:10:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	400	11/4/2011 3:10:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 3:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-027 **Matrix:** AIR

Client Sample ID VA0868

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	610,000	94,000		µg/m³	800	11/10/2011 11:51:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	11/10/2011 11:51:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	11/10/2011 11:51:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	800	11/10/2011 11:51:00 AM

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 3:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-028 **Matrix:** AIR

Client Sample ID VA0869

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.15	0.10		%	1	11/16/2011 6:36:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 6:36:00 PM
Methane	ND	0.50		%	1	11/16/2011 6:36:00 PM
Nitrogen	78	0.10		%	1	11/16/2011 6:36:00 PM
Oxygen	20	0.10		%	1	11/16/2011 6:36:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 3:57:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 3:57:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Acetone	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Benzene	1,200	400		ppbv	400	11/4/2011 3:57:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 3:57:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 3:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-028 **Matrix:** AIR

Client Sample ID VA0869

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Cyclohexane	4,700	800		ppbv	400	11/4/2011 3:57:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 3:57:00 AM
Heptane	820	400		ppbv	400	11/4/2011 3:57:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 3:57:00 AM
m,p-Xylene	580	800	J	ppbv	400	11/4/2011 3:57:00 AM
Methylene chloride	ND	2,000		ppbv	400	11/4/2011 3:57:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
n-Hexane	4,200	800		ppbv	400	11/4/2011 3:57:00 AM
o-Xylene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Propylene	520	400		ppbv	400	11/4/2011 3:57:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Toluene	2,800	400		ppbv	400	11/4/2011 3:57:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 3:57:00 AM
Xylenes, Total	580	1,200	J	ppbv	400	11/4/2011 3:57:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	400	11/4/2011 3:57:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 3:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-028 **Matrix:** AIR

Client Sample ID VA0869

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	700,000	47,000		µg/m³	400	11/10/2011 12:41:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/10/2011 12:41:00 PM
C9-C12 Aliphatic Hydrocarbons	11,000	76,000	J	µg/m³	400	11/10/2011 12:41:00 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	400	11/10/2011 12:41:00 PM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 4:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-029 **Matrix:** AIR

Client Sample ID VA0870

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.16	0.10		%	1	11/16/2011 7:02:00 PM
Carbon Monoxide	ND	0.10		%	1	11/16/2011 7:02:00 PM
Methane	ND	0.50		%	1	11/16/2011 7:02:00 PM
Nitrogen	78	0.10		%	1	11/16/2011 7:02:00 PM
Oxygen	20	0.10		%	1	11/16/2011 7:02:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
2-Butanone	ND	400		ppbv	400	11/4/2011 4:44:00 AM
2-Hexanone	ND	400		ppbv	400	11/4/2011 4:44:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Acetone	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Benzene	5,600	400		ppbv	400	11/4/2011 4:44:00 AM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Bromoform	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Bromomethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 4:44:00 AM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 4:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-029 **Matrix:** AIR

Client Sample ID VA0870

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				TO-15		Analyst: RH3
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Chloroethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Chloroform	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Chloromethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Cyclohexane	15,000	800		ppbv	400	11/4/2011 4:44:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Ethylbenzene	670	800	J	ppbv	400	11/4/2011 4:44:00 AM
Heptane	5,200	400		ppbv	400	11/4/2011 4:44:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 4:44:00 AM
m,p-Xylene	1,200	800		ppbv	400	11/4/2011 4:44:00 AM
Methylene chloride	ND	2,000		ppbv	400	11/4/2011 4:44:00 AM
Naphthalene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
n-Hexane	16,000	800		ppbv	400	11/4/2011 4:44:00 AM
o-Xylene	410	400		ppbv	400	11/4/2011 4:44:00 AM
Propylene	900	400		ppbv	400	11/4/2011 4:44:00 AM
Styrene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Toluene	16,000	400		ppbv	400	11/4/2011 4:44:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Trichloroethene	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 4:44:00 AM
Xylenes, Total	1,700	1,200		ppbv	400	11/4/2011 4:44:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	11/4/2011 4:44:00 AM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 4:16:00 PM

Project: Kirtland AFB

Lab ID: 1111023-029 **Matrix:** AIR

Client Sample ID VA0870

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	1,700,000	94,000		µg/m³	800	11/10/2011 1:28:00 PM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	11/10/2011 1:28:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	11/10/2011 1:28:00 PM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	800	11/10/2011 1:28:00 PM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 12:43:00 PM

Project: Kirtland AFB

Lab ID: 1111023-030 **Matrix:** AIR

Client Sample ID VA0904

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.64	0.10		%	1	11/18/2011 4:47:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 4:47:00 PM
Methane	ND	0.50		%	1	11/18/2011 4:47:00 PM
Nitrogen	79	0.10		%	1	11/18/2011 4:47:00 PM
Oxygen	21	0.10		%	1	11/18/2011 4:47:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
2-Butanone	ND	400		ppbv	400	11/4/2011 12:30:00 PM
2-Hexanone	ND	400		ppbv	400	11/4/2011 12:30:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Acetone	660	400		ppbv	400	11/4/2011 12:30:00 PM
Benzene	1,900	400		ppbv	400	11/4/2011 12:30:00 PM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Bromoform	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Bromomethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 12:30:00 PM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/20/2011 12:43:00 PM
Project: Kirtland AFB
Lab ID: 1111023-030
Matrix: AIR
Client Sample ID VA0904

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Chloroethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Chloroform	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Chloromethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Cyclohexane	6,500	800		ppbv	400	11/4/2011 12:30:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Ethylbenzene	600	800	J	ppbv	400	11/4/2011 12:30:00 PM
Heptane	5,200	400		ppbv	400	11/4/2011 12:30:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 12:30:00 PM
m,p-Xylene	1,700	800		ppbv	400	11/4/2011 12:30:00 PM
Methylene chloride	3,000	2,000		ppbv	400	11/4/2011 12:30:00 PM
Naphthalene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
n-Hexane	3,800	800		ppbv	400	11/4/2011 12:30:00 PM
o-Xylene	500	400		ppbv	400	11/4/2011 12:30:00 PM
Propylene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Styrene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Toluene	5,100	400		ppbv	400	11/4/2011 12:30:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Trichloroethene	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 12:30:00 PM
Xylenes, Total	2,200	1,200		ppbv	400	11/4/2011 12:30:00 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	11/4/2011 12:30:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

RTI
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Livonia, MI 48150
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/20/2011 12:43:00 PM
Project: Kirtland AFB
Lab ID: 1111023-030
Matrix: AIR
Client Sample ID VA0904

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	330,000	47,000		µg/m³	400	11/4/2011 2:02:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/4/2011 2:02:00 AM
C9-C12 Aliphatic Hydrocarbons	71,000	76,000	J	µg/m³	400	11/4/2011 2:02:00 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	400	11/4/2011 2:02:00 AM

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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/20/2011 1:17:00 PM
Project: Kirtland AFB
Lab ID: 1111023-031
Matrix: AIR
Client Sample ID VA0905

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.93	0.10		%	1	11/18/2011 5:06:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 5:06:00 PM
Methane	ND	0.50		%	1	11/18/2011 5:06:00 PM
Nitrogen	78	0.10		%	1	11/18/2011 5:06:00 PM
Oxygen	20	0.10		%	1	11/18/2011 5:06:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
2-Butanone	ND	400		ppbv	400	11/4/2011 1:17:00 PM
2-Hexanone	ND	400		ppbv	400	11/4/2011 1:17:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Acetone	710	400		ppbv	400	11/4/2011 1:17:00 PM
Benzene	870	400		ppbv	400	11/4/2011 1:17:00 PM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Bromoform	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Bromomethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 1:17:00 PM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
Lab ID: 1111023-031
Client Sample ID VA0905

Collection Date: 10/20/2011 1:17:00 PM
Matrix: AIR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Chloroethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Chloroform	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Chloromethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Cyclohexane	2,400	800		ppbv	400	11/4/2011 1:17:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 1:17:00 PM
Heptane	1,100	400		ppbv	400	11/4/2011 1:17:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 1:17:00 PM
m,p-Xylene	520	800	J	ppbv	400	11/4/2011 1:17:00 PM
Methylene chloride	1,800	2,000	J	ppbv	400	11/4/2011 1:17:00 PM
Naphthalene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
n-Hexane	1,600	800		ppbv	400	11/4/2011 1:17:00 PM
o-Xylene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Propylene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Styrene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Toluene	1,600	400		ppbv	400	11/4/2011 1:17:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Trichloroethene	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 1:17:00 PM
Xylenes, Total	520	1,200	J	ppbv	400	11/4/2011 1:17:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	11/4/2011 1:17:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc
Collection Date: 10/20/2011 1:17:00 PM
Project: Kirtland AFB
Lab ID: 1111023-031
Matrix: AIR
Client Sample ID VA0905

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				MA_APH		Analyst: RH3
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	190,000	47,000		µg/m³	400	11/4/2011 2:51:00 AM
C9-C10 Aromatic Hydrocarbons	19,000	53,000	J	µg/m³	400	11/4/2011 2:51:00 AM
C9-C12 Aliphatic Hydrocarbons	30,000	76,000	J	µg/m³	400	11/4/2011 2:51:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	11/4/2011 2:51:00 AM

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

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 2:11:00 PM

Project: Kirtland AFB

Lab ID: 1111023-032 **Matrix:** AIR

Client Sample ID VA0906

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.66	0.10		%	1	11/18/2011 5:27:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 5:27:00 PM
Methane	ND	0.50		%	1	11/18/2011 5:27:00 PM
Nitrogen	78	0.10		%	1	11/18/2011 5:27:00 PM
Oxygen	21	0.10		%	1	11/18/2011 5:27:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
2-Butanone	ND	400		ppbv	400	11/4/2011 2:04:00 PM
2-Hexanone	ND	400		ppbv	400	11/4/2011 2:04:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Acetone	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Benzene	540	400		ppbv	400	11/4/2011 2:04:00 PM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Bromoform	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Bromomethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 2:04:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 2:11:00 PM

Project: Kirtland AFB

Lab ID: 1111023-032 **Matrix:** AIR

Client Sample ID VA0906

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				TO-15		Analyst: RH3
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Chloroethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Chloroform	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Chloromethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Cyclohexane	3,100	800		ppbv	400	11/4/2011 2:04:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Ethylbenzene	420	800	J	ppbv	400	11/4/2011 2:04:00 PM
Heptane	1,800	400		ppbv	400	11/4/2011 2:04:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 2:04:00 PM
m,p-Xylene	1,200	800		ppbv	400	11/4/2011 2:04:00 PM
Methylene chloride	ND	2,000		ppbv	400	11/4/2011 2:04:00 PM
Naphthalene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
n-Hexane	1,500	800		ppbv	400	11/4/2011 2:04:00 PM
o-Xylene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Propylene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Styrene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Toluene	2,200	400		ppbv	400	11/4/2011 2:04:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Trichloroethene	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 2:04:00 PM
Xylenes, Total	1,200	1,200		ppbv	400	11/4/2011 2:04:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	400	11/4/2011 2:04:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
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Revision v1

RTI LABORATORIES, INC.

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31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 2:11:00 PM

Project: Kirtland AFB

Lab ID: 1111023-032 **Matrix:** AIR

Client Sample ID VA0906

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	280,000	47,000		µg/m³	400	11/4/2011 3:40:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/4/2011 3:40:00 AM
C9-C12 Aliphatic Hydrocarbons	66,000	76,000	J	µg/m³	400	11/4/2011 3:40:00 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	400	11/4/2011 3:40:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1111023-033 **Matrix:** AIR

Client Sample ID VA0907

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.2	0.10		%	1	11/18/2011 6:00:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 6:00:00 PM
Methane	ND	0.50		%	1	11/18/2011 6:00:00 PM
Nitrogen	80	0.10		%	1	11/18/2011 6:00:00 PM
Oxygen	19	0.10		%	1	11/18/2011 6:00:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,3-Butadiene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
2-Butanone	ND	400		ppbv	400	11/4/2011 2:52:00 PM
2-Hexanone	ND	400		ppbv	400	11/4/2011 2:52:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Acetone	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Benzene	1,000	400		ppbv	400	11/4/2011 2:52:00 PM
Benzyl chloride	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Bromodichloromethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Bromoform	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Bromomethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Carbon disulfide	ND	400		ppbv	400	11/4/2011 2:52:00 PM

Qualifiers:

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1111023-033 **Matrix:** AIR

Client Sample ID VA0907

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				TO-15		Analyst: RH3
Carbon tetrachloride	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Chlorobenzene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Chlorodibromomethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Chloroethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Chloroform	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Chloromethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Cyclohexane	2,600	800		ppbv	400	11/4/2011 2:52:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Ethyl acetate	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Ethylbenzene	ND	800		ppbv	400	11/4/2011 2:52:00 PM
Heptane	2,100	400		ppbv	400	11/4/2011 2:52:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	11/4/2011 2:52:00 PM
m,p-Xylene	1,000	800		ppbv	400	11/4/2011 2:52:00 PM
Methylene chloride	1,100	2,000	J	ppbv	400	11/4/2011 2:52:00 PM
Naphthalene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
n-Hexane	1,400	800		ppbv	400	11/4/2011 2:52:00 PM
o-Xylene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Propylene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Styrene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Tetrachloroethene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Tetrahydrofuran	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Toluene	2,800	400		ppbv	400	11/4/2011 2:52:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Trichloroethene	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Vinyl acetate	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Vinyl chloride	ND	400		ppbv	400	11/4/2011 2:52:00 PM
Xylenes, Total	1,000	1,200	J	ppbv	400	11/4/2011 2:52:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	400	11/4/2011 2:52:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
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J	Estimated concentration
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RTI LABORATORIES, INC.

RTI
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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1111023-033 **Matrix:** AIR

Client Sample ID VA0907

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	220,000	47,000		µg/m³	400	11/4/2011 4:29:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	11/4/2011 4:29:00 AM
C9-C12 Aliphatic Hydrocarbons	68,000	76,000	J	µg/m³	400	11/4/2011 4:29:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	11/4/2011 4:29:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 3:34:00 PM

Project: Kirtland AFB

Lab ID: 1111023-034 **Matrix:** AIR

Client Sample ID VA0908

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.32	0.10		%	1	11/18/2011 6:47:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 6:47:00 PM
Methane	ND	0.50		%	1	11/18/2011 6:47:00 PM
Nitrogen	79	0.10		%	1	11/18/2011 6:47:00 PM
Oxygen	20	0.10		%	1	11/18/2011 6:47:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,3-Butadiene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
2-Butanone	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
2-Hexanone	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Acetone	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Benzene	99,000	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Benzyl chloride	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Bromodichloromethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Bromoform	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Bromomethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Carbon disulfide	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
Lab ID: 1111023-034
Client Sample ID VA0908

Collection Date: 10/20/2011 3:34:00 PM
Matrix: AIR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				TO-15		Analyst: RH3
Carbon tetrachloride	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Chlorobenzene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Chloroethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Chloroform	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Chloromethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Cyclohexane	130,000	16,000		ppbv	8000	11/4/2011 3:32:00 PM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Ethyl acetate	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Ethylbenzene	ND	16,000		ppbv	8000	11/4/2011 3:32:00 PM
Heptane	69,000	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/4/2011 3:32:00 PM
m,p-Xylene	9,800	16,000	J	ppbv	8000	11/4/2011 3:32:00 PM
Methylene chloride	ND	40,000		ppbv	8000	11/4/2011 3:32:00 PM
Naphthalene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
n-Hexane	120,000	16,000		ppbv	8000	11/4/2011 3:32:00 PM
o-Xylene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Propylene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Styrene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Tetrachloroethene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Toluene	140,000	8,000		ppbv	8000	11/4/2011 3:32:00 PM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Trichloroethene	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Vinyl acetate	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Vinyl chloride	ND	8,000		ppbv	8000	11/4/2011 3:32:00 PM
Xylenes, Total	9,800	24,000	J	ppbv	8000	11/4/2011 3:32:00 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	8000	11/4/2011 3:32:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
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Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 3:34:00 PM

Project: Kirtland AFB

Lab ID: 1111023-034 **Matrix:** AIR

Client Sample ID VA0908

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR						
AIR-PHASE PETROLEUM HYDROCARBONS				MA_APH		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	4,600,000	940,000		µg/m³	8000	11/3/2011 9:30:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	11/3/2011 9:30:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	11/3/2011 9:30:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	8000	11/3/2011 9:30:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 4:11:00 PM

Project: Kirtland AFB

Lab ID: 1111023-035 **Matrix:** AIR

Client Sample ID VA0909

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.51	0.10		%	1	11/18/2011 7:09:00 PM
Carbon Monoxide	ND	0.10		%	1	11/18/2011 7:09:00 PM
Methane	ND	0.50		%	1	11/18/2011 7:09:00 PM
Nitrogen	79	0.10		%	1	11/18/2011 7:09:00 PM
Oxygen	19	0.10		%	1	11/18/2011 7:09:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,1-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,1-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,2-Dibromoethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,2-Dichloroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,2-Dichloropropane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,3-Butadiene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
2-Butanone	14,000	8,000		ppbv	8000	11/4/2011 4:12:00 PM
2-Hexanone	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Acetone	38,000	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Benzene	350,000	20,000		ppbv	20000	11/9/2011 5:23:00 PM
Benzyl chloride	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Bromodichloromethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Bromoform	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Bromomethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Carbon disulfide	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM

Qualifiers:

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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/20/2011 4:11:00 PM

Project: Kirtland AFB

Lab ID: 1111023-035 **Matrix:** AIR

Client Sample ID VA0909

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Chlorobenzene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Chlorodibromomethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Chloroethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Chloroform	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Chloromethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Cyclohexane	970,000	40,000		ppbv	20000	11/9/2011 5:23:00 PM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Ethyl acetate	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Ethylbenzene	15,000	16,000	J	ppbv	8000	11/4/2011 4:12:00 PM
Heptane	580,000	20,000		ppbv	20000	11/9/2011 5:23:00 PM
Hexachlorobutadiene	ND	16,000		ppbv	8000	11/4/2011 4:12:00 PM
m,p-Xylene	51,000	16,000		ppbv	8000	11/4/2011 4:12:00 PM
Methylene chloride	ND	40,000		ppbv	8000	11/4/2011 4:12:00 PM
Naphthalene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
n-Hexane	1,100,000	40,000		ppbv	20000	11/9/2011 5:23:00 PM
o-Xylene	12,000	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Propylene	22,000	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Styrene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Tetrachloroethene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Tetrahydrofuran	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Toluene	500,000	20,000		ppbv	20000	11/9/2011 5:23:00 PM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Trichloroethene	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Trichlorofluoromethane	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Vinyl acetate	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Vinyl chloride	ND	8,000		ppbv	8000	11/4/2011 4:12:00 PM
Xylenes, Total	62,000	24,000		ppbv	8000	11/4/2011 4:12:00 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8000	11/4/2011 4:12:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
Lab ID: 1111023-035
Client Sample ID VA0909

Collection Date: 10/20/2011 4:11:00 PM
Matrix: AIR

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	37,000,000	2,300,000		µg/m³	20000	11/10/2011 6:12:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	11/10/2011 6:12:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000		µg/m³	20000	11/10/2011 6:12:00 PM
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	20000	11/10/2011 6:12:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Estimated concentration
ND	Not Detected at the Reporting Limit
RL	Reporting Limit
B	Analyte detected in the associated Method Blank
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PL	Permit Limit
S	Spike Recovery outside accepted recovery limits

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1111023

Date Reported: 11/30/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 8:00:00 AM

Project: Kirtland AFB

Lab ID: 1111023-036 **Matrix:** AIR

Client Sample ID VA8056-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,1,2,2-Tetrachloroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,1,2-Trichloroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,1-Dichloroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,1-Dichloroethene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,2,4-Trichlorobenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,2,4-Trimethylbenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,2-Dibromoethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,2-Dichlorobenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,2-Dichloroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,2-Dichloropropane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,3,5-Trimethylbenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,3-Butadiene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,3-Dichlorobenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
1,4-Dichlorobenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
2-Butanone	ND	40		ppbv	40	11/2/2011 5:17:00 PM
2-Hexanone	ND	40		ppbv	40	11/2/2011 5:17:00 PM
4-Methyl-2-pentanone	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Acetone	56	40		ppbv	40	11/2/2011 5:17:00 PM
Benzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Benzyl chloride	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Bromodichloromethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Bromoform	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Bromomethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Carbon disulfide	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Carbon tetrachloride	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Chlorobenzene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Chlorodibromomethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Chloroethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Chloroform	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Chloromethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
cis-1,2-Dichloroethene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
cis-1,3-dichloropropene	ND	40		ppbv	40	11/2/2011 5:17:00 PM

Qualifiers:

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

RTI LABORATORIES, INC.

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TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1111023**

Date Reported: **11/30/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 10/18/2011 8:00:00 AM

Project: Kirtland AFB

Lab ID: 1111023-036 **Matrix:** AIR

Client Sample ID VA8056-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Cyclohexane	ND	80		ppbv	40	11/2/2011 5:17:00 PM
Dichlorodifluoromethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Ethyl acetate	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Ethylbenzene	ND	80		ppbv	40	11/2/2011 5:17:00 PM
Heptane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Hexachlorobutadiene	ND	80		ppbv	40	11/2/2011 5:17:00 PM
m,p-Xylene	ND	80		ppbv	40	11/2/2011 5:17:00 PM
Methylene chloride	ND	200		ppbv	40	11/2/2011 5:17:00 PM
Naphthalene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
n-Hexane	ND	80		ppbv	40	11/2/2011 5:17:00 PM
o-Xylene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Propylene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Styrene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
tert-Butyl Methyl Ether	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Tetrachloroethene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Tetrahydrofuran	50	40		ppbv	40	11/2/2011 5:17:00 PM
Toluene	45	40		ppbv	40	11/2/2011 5:17:00 PM
trans-1,2-Dichloroethene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
trans-1,3-dichloropropene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Trichloroethene	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Trichlorofluoromethane	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Vinyl acetate	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Vinyl chloride	ND	40		ppbv	40	11/2/2011 5:17:00 PM
Xylenes, Total	ND	120		ppbv	40	11/2/2011 5:17:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	40	11/2/2011 5:17:00 PM

Qualifiers:

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

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43869

Sample ID:	BLK 103111 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	43869	
Client ID:	PBW	Batch ID:	R43869	TestNo:	MA_APH			Analysis Date:	10/31/2011	SeqNo:	859342	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	93		89.50		104	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43931

Sample ID:	MBLK2 VOA1 10311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43931
Client ID:	PBW	Batch ID:	R43931	TestNo:	TO-15			Analysis Date:	11/2/2011	SeqNo:	860877

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#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43931

Sample ID:	MBLK2 VOA1 10311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43931
Client ID:	PBW	Batch ID:	R43931	TestNo:	TO-15			Analysis Date:	11/2/2011	SeqNo:	860877

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		105	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Batch ID: R43931

Sample ID:	1110757-016ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43931
Client ID:	ZZZZZZ	Batch ID:	R43931	TestNo:	TO-15			Analysis Date:	11/2/2011	SeqNo:	860885

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	
1,1,2,2-Tetrachloroethane	ND	8,000						0	0	25	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000						0	0	25	
1,1,2-Trichloroethane	ND	8,000						0	0	25	
1,1-Dichloroethane	ND	8,000						0	0	25	
1,1-Dichloroethene	ND	8,000						0	0	25	
1,2,4-Trichlorobenzene	ND	8,000						0	0	25	
1,2,4-Trimethylbenzene	ND	8,000						0	0	25	
1,2-Dibromoethane	ND	8,000						0	0	25	
1,2-Dichlorobenzene	ND	8,000						0	0	25	
1,2-Dichloroethane	ND	8,000						0	0	25	
1,2-Dichloropropane	ND	8,000						0	0	25	
1,3,5-Trimethylbenzene	ND	8,000						0	0	25	
1,3-Butadiene	ND	8,000						0	0	25	
1,3-Dichlorobenzene	ND	8,000						0	0	25	
1,4-Dichlorobenzene	ND	8,000						0	0	25	
2-Butanone	ND	8,000						0	0	25	
2-Hexanone	ND	8,000						0	0	25	
4-Methyl-2-pentanone	ND	8,000						0	0	25	
Acetone	ND	8,000						0	0	25	
Benzene	59,000	8,000						44,480	28.3	25	R
Benzyl chloride	ND	8,000						0	0	25	
Bromodichloromethane	ND	8,000						0	0	25	
Bromoform	ND	8,000						0	0	25	
Bromomethane	ND	8,000						0	0	25	
Carbon disulfide	ND	8,000						0	0	25	
Carbon tetrachloride	ND	8,000						0	0	25	
Chlorobenzene	ND	8,000						0	0	25	
Chlorodibromomethane	ND	8,000						0	0	25	
Chloroethane	ND	8,000						0	0	25	
Chloroform	ND	8,000						0	0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43931

Sample ID:	1110757-016ADUP	Samp Type:	DUP	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	43931
Client ID:	ZZZZZZ	Batch ID:	R43931	TestNo:	TO-15			Analysis Date:	11/2/2011	SeqNo:	860885

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	
cis-1,2-Dichloroethene	ND	8,000						0	0	25	
cis-1,3-dichloropropene	ND	8,000						0	0	25	
Cyclohexane	140,000	16,000						113,500	18.1	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	
Ethyl acetate	ND	8,000						0	0	25	
Ethylbenzene	ND	16,000						0	0	25	
Heptane	87,000	8,000						74,000	15.8	25	
Hexachlorobutadiene	ND	16,000						0	0	25	
m,p-Xylene	14,000	16,000						12,400	13.8	25	J
Methylene chloride	ND	40,000						0	0	25	
n-Hexane	120,000	16,000						103,000	17.6	25	
Naphthalene	ND	8,000						0	0	25	
o-Xylene	ND	8,000						0	0	25	
Propylene	ND	8,000						0	0	25	
Styrene	ND	8,000						0	0	25	
tert-Butyl Methyl Ether	ND	8,000						0	0	25	
Tetrachloroethene	ND	8,000						0	0	25	
Tetrahydrofuran	ND	8,000						0	0	25	
Toluene	93,000	8,000						74,720	21.3	25	
trans-1,2-Dichloroethene	ND	8,000						0	0	25	
trans-1,3-dichloropropene	ND	8,000						0	0	25	
Trichloroethene	ND	8,000						0	0	25	
Trichlorofluoromethane	ND	8,000						0	0	25	
Vinyl acetate	ND	8,000						0	0	25	
Vinyl chloride	ND	8,000						0	0	25	
Xylenes, Total	14,000	24,000						12,400	13.8	25	J
Surr: 4-Bromofluorobenzene	100,000		100,000		104	70	130		0	25	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R43969

Sample ID:	BLK 110311 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	43969	
Client ID:	PBW	Batch ID:	R43969	TestNo:	MA_APH			Analysis Date:	11/3/2011	SeqNo:	861781	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	93		89.50		104	70	130				

Sample ID:	1111023-002ADUP	Samp Type:	DUP	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	43969	
Client ID:	VA0696-FQ	Batch ID:	R43969	TestNo:	MA_APH			Analysis Date:	11/3/2011	SeqNo:	861787	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	18,000,000	940,000						18,130,000	1.33	30	
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	750,000		716,000		104	70	130		0	30	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44059

Sample ID:	BLK VOA1 110311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44059
Client ID:	PBW	Batch ID:	R44059	TestNo:	TO-15			Analysis Date:	11/3/2011	SeqNo:	864036

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#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44059

Sample ID:	BLK VOA1 110311	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44059
Client ID:	PBW	Batch ID:	R44059	TestNo:	TO-15			Analysis Date:	11/3/2011	SeqNo:	864036

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		116	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44111

Sample ID:	BLK VOA1 110811	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44111
Client ID:	PBW	Batch ID:	R44111	TestNo:	TO-15			Analysis Date:	11/8/2011	SeqNo:	865076

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#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44111

Sample ID:	BLK VOA1 110811	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44111
Client ID:	PBW	Batch ID:	R44111	TestNo:	TO-15			Analysis Date:	11/8/2011	SeqNo:	865076

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#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44138

Sample ID:	BLK1 110911 VOA9	Samp Type:	MBLK	Test Code:	MA_APH	Units:	µg/m³	Prep Date:		RunNo:	44138	
Client ID:	PBW	Batch ID:	R44138	TestNo:	MA_APH			Analysis Date:	11/10/2011	SeqNo:	865721	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	ND	120									
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	88		89.50		98.1	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44219

Sample ID:	BLK VOA1 111411	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44219
Client ID:	PBW	Batch ID:	R44219	TestNo:	TO-15			Analysis Date:	11/14/2011	SeqNo:	867655

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#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44219

Sample ID:	BLK VOA1 111411	Samp Type:	MBLK	Test Code:	EPA_TO15	Units:	ppbv	Prep Date:		RunNo:	44219
Client ID:	PBW	Batch ID:	R44219	TestNo:	TO-15			Analysis Date:	11/14/2011	SeqNo:	867655

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		112	70	130				

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44466

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	44466
Client ID:	PBW	Batch ID:	R44466	TestNo:	ASTM-D2504			Analysis Date:	11/16/2011	SeqNo:	872631

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:	44466
Client ID:	LCSW	Batch ID:	R44466	TestNo:	ASTM-D2504			Analysis Date:	11/16/2011	SeqNo:	872633

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.3	0.10	2.500	0	93.0	70	130	2.503	7.42	0	
Carbon Monoxide	2.3	0.10	2.500	0	93.1	70	130	2.495	6.93	0	
Methane	1.9	0.50	2.000	0	93.4	70	130	2.003	6.92	0	
Nitrogen	2.6	0.10	2.500	0	105	70	130	2.862	8.18	0	
Oxygen	2.3	0.10	2.500	0	92.8	70	130	2.503	7.63	0	

Sample ID:	1111023-029bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	44466
Client ID:	VA0870	Batch ID:	R44466	TestNo:	ASTM-D2504			Analysis Date:	11/16/2011	SeqNo:	872642

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.16	0.10						0.1600	1.89	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						78.35	0.939	20	
Oxygen	20	0.10						20.49	0.235	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44467

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	44467
Client ID:	PBW	Batch ID:	R44467	TestNo:	ASTM-D2504			Analysis Date:	11/17/2011	SeqNo:	872645

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:	44467
Client ID:	LCSW	Batch ID:	R44467	TestNo:	ASTM-D2504			Analysis Date:	11/17/2011	SeqNo:	872647

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.2	0.10	2.500	0	89.5	70	130	2.154	3.83	0	
Carbon Monoxide	2.2	0.10	2.500	0	87.8	70	130	2.210	0.681	0	
Methane	1.8	0.50	2.000	0	89.4	70	130	1.790	0.0559	0	
Nitrogen	2.7	0.10	2.500	0	108	70	130	2.596	4.30	0	
Oxygen	2.3	0.10	2.500	0	92.3	70	130	2.199	4.79	0	

Sample ID:	1111023-022bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	44467
Client ID:	VA0850	Batch ID:	R44467	TestNo:	ASTM-D2504			Analysis Date:	11/17/2011	SeqNo:	872659

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	1.4	0.10						1.405	1.51	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	81	0.10						81.14	0.526	20	
Oxygen	17	0.10						17.06	0.523	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44468

Sample ID:	mblk	Samp Type:	MBLK	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	44468
Client ID:	PBW	Batch ID:	R44468	TestNo:	ASTM-D2504			Analysis Date:	11/18/2011	SeqNo:	872662

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:	44468
Client ID:	LCSW	Batch ID:	R44468	TestNo:	ASTM-D2504			Analysis Date:	11/18/2011	SeqNo:	872664

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.1	0.10	2.500	0	85.5	70	130	2.189	2.40	0	
Carbon Monoxide	2.2	0.10	2.500	0	86.1	70	130	2.200	2.21	0	
Methane	1.7	0.50	2.000	0	87.2	70	130	1.725	1.15	0	
Nitrogen	2.8	0.10	2.500	0	114	70	130	2.796	1.74	0	
Oxygen	2.3	0.10	2.500	0	92.8	70	130	2.286	1.52	0	

Sample ID:	1111023-035bdup	Samp Type:	DUP	Test Code:	ASTM-D2504	Units:	%	Prep Date:		RunNo:	44468
Client ID:	VA0909	Batch ID:	R44468	TestNo:	ASTM-D2504			Analysis Date:	11/18/2011	SeqNo:	872674

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.51	0.10						0.5120	0.196	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	79	0.10						79.21	0.219	20	
Oxygen	19	0.10						19.25	0.192	20	

RTI Laboratories - QC SUMMARY REPORT

WO#: 1111023

Date Reported: 11/30/2011
Revision v1

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB **Batch ID:** R44469

Sample ID: **mblk** Samp Type: **MBLK** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **44469**
Client ID: **PBW** Batch ID: **R44469** TestNo: **ASTM-D2504** Analysis Date: **11/20/2011** SeqNo: **872677**

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: **44469**
Client ID: **LCSW** Batch ID: **R44469** TestNo: **ASTM-D2504** Analysis Date: **11/20/2011** SeqNo: **872679**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	100	70	130	2.712	7.78	0	
Carbon Monoxide	2.4	0.10	2.500	0	97.2	70	130	2.547	4.66	0	
Methane	2.0	0.50	2.000	0	97.5	70	130	2.009	2.98	0	
Nitrogen	2.8	0.10	2.500	0	113	70	130	2.675	5.84	0	
Oxygen	2.5	0.10	2.500	0	102	70	130	2.465	3.27	0	

Sample ID: **1111023-015bdup** Samp Type: **DUP** Test Code: **ASTM-D2504** Units: **%** Prep Date: RunNo: **44469**
Client ID: **VA0789** Batch ID: **R44469** TestNo: **ASTM-D2504** Analysis Date: **11/20/2011** SeqNo: **872691**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Value	%RPD	RPDLimit	Qual
Carbon dioxide	0.095	0.10						0.09800	3.11	20	J
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						78.02	0.201	20	
Oxygen	21	0.10						20.95	0.00477	20	

RTI Laboratories

Run ID: VOA1_111101A **Run No.:** 43931

Analytical Run Date: 11/1/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 43931 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 110111	BFB_TUNE	TUNE	R43931	11/1/2011 8:10:00 PM	Charles O`Bryan		
1ppbv ICAL	EPA_TO15	ICAL	R43931	11/1/2011 9:34:00 PM	Charles O`Bryan		
10ppbv ICAL	EPA_TO15	ICAL	R43931	11/1/2011 10:14:00 PM	Charles O`Bryan		
12ppbv ICAL	EPA_TO15	ICAL	R43931	11/1/2011 10:55:00 PM	Charles O`Bryan		
15ppbv ICAL	EPA_TO15	ICAL	R43931	11/1/2011 11:36:00 PM	Charles O`Bryan		
20ppbv ICAL	EPA_TO15	ICAL	R43931	11/2/2011 12:18:00 AM	Charles O`Bryan		
30ppbv ICAL	EPA_TO15	ICAL	R43931	11/2/2011 1:00:00 AM	Charles O`Bryan		
50ppbv ICAL	EPA_TO15	ICAL	R43931	11/2/2011 1:43:00 AM	Charles O`Bryan		
BFB2 VOA1 103111	BFB_TUNE	TUNE	R43931	11/2/2011 2:24:00 AM	Charles O`Bryan		
CCV2 VOA1 103111	EPA_TO15	CCV	R43931	11/2/2011 3:04:00 AM	Charles O`Bryan		
RLVS3 VOA1 10311	EPA_TO15	RLVS	R43931	11/2/2011 3:46:00 AM	Charles O`Bryan		
MBLK2 VOA1 10311	EPA_TO15	MBLK	R43931	11/2/2011 4:33:00 AM	Charles O`Bryan		
1110757-002A	EPA_TO15	SAMP	R43931	11/2/2011 5:14:00 AM	Charles O`Bryan		
1110757-011A	EPA_TO15	SAMP	R43931	11/2/2011 5:58:00 AM	Charles O`Bryan		
1110757-012A	EPA_TO15	SAMP	R43931	11/2/2011 6:39:00 AM	Charles O`Bryan		
1110757-013A	EPA_TO15	SAMP	R43931	11/2/2011 7:26:00 AM	Charles O`Bryan		
1110757-014A	EPA_TO15	SAMP	R43931	11/2/2011 8:06:00 AM	Charles O`Bryan		
1110757-015A	EPA_TO15	SAMP	R43931	11/2/2011 8:47:00 AM	Charles O`Bryan		
1110757-016A	EPA_TO15	SAMP	R43931	11/2/2011 9:27:00 AM	Celeste Hoitash		
1110757-016ADUP	EPA_TO15	DUP	R43931	11/2/2011 10:08:00 AM	Celeste Hoitash		
1110757-017A	EPA_TO15	SAMP	R43931	11/2/2011 10:49:00 AM	Charles O`Bryan		
1110757-028A	EPA_TO15	SAMP	R43931	11/2/2011 11:31:00 AM	Charles O`Bryan		
1110757-029A	EPA_TO15	SAMP	R43931	11/2/2011 12:13:00 PM	Charles O`Bryan		
1110757-030A	EPA_TO15	SAMP	R43931	11/2/2011 1:01:00 PM	Charles O`Bryan		
1110757-031A	EPA_TO15	SAMP	R43931	11/2/2011 1:53:00 PM	Charles O`Bryan		
1110757-032A	EPA_TO15	SAMP	R43931	11/2/2011 2:34:00 PM	Charles O`Bryan		
1110757-033A	EPA_TO15	SAMP	R43931	11/2/2011 3:15:00 PM	Charles O`Bryan		
1110757-034A	EPA_TO15	SAMP	R43931	11/2/2011 3:56:00 PM	Charles O`Bryan		
1110757-017A	EPA_TO15	SAMP	R43931	11/2/2011 4:36:00 PM	Charles O`Bryan		
1111023-036A	EPA_TO15	SAMP	R43931	11/2/2011 5:17:00 PM	Charles O`Bryan		
RLVS3 VOA1 10311	EPA_TO15	RLVS	R43931	11/2/2011 11:32:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
860875	CCV2 VOA1 103111	EPA_TO15	CCV	\1\DATA\11011111	1/2/2011 3:04:0	1	R43931		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	9.99	9.99		10	0	0	0.211	1	0	100%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11	11		9.8	0	0	0.108	1	0	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.83	9.83		9.8	0	0	0.2	1	0	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.61	10.61		9.7	0	0	0.111	1	0	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.99	10.99		9.9	0	0	0.097	1	0	111%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.85	7.85		9.1	0	0	0.271	1	0	86%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.24	9.24		9.8	0	0	0.245	1	0	94%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.7	9.7		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.94	8.94		9.7	0	0	0.208	1	0	92%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.69	10.69		9.7	0	0	0.196	1	0	110%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.06	10.06		9.8	0	0	0.224	1	0	103%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.32	9.32		9.7	0	0	0.24	1	0	96%	70	130	0%	
1,3-Butadiene	A	ppbv	11.98	11.98		9.8	0	0	0.152	1	0	122%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.25	9.25		9.7	0	0	0.202	1	0	95%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	8.88	8.88		9.6	0	0	0.194	1	0	93%	70	130	0%	
1,4-Dioxane	A	ppbv	9.67	9.67		9.6	0	0	0.128	1	0	101%	70	130	0%	
2-Butanone	A	ppbv	10.51	10.51		9.9	0	0	0.287	1	0	106%	70	130	0%	
2-Hexanone	A	ppbv	9.76	9.76		9.8	0	0	0.135	1	0	100%	70	130	0%	
2-Propanol	A	ppbv	10.74	10.74		10.1	0	0	0.329	1	0	106%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.02	10.02		10	0	0	0.157	1	0	100%	70	130	0%	
Acetone	A	ppbv	10.51	10.51		10	0	0	0.43	1	0	105%	70	130	0%	
Benzene	A	ppbv	10.3	10.3		9.6	0	0	0.126	1	0	107%	70	130	0%	
Benzyl chloride	A	ppbv	10.24	10.24		9.7	0	0	0.155	1	0	106%	70	130	0%	
Bromodichloromethane	A	ppbv	10	10		9.6	0	0	0.156	1	0	104%	70	130	0%	
Bromoform	A	ppbv	9.7	9.7		9.6	0	0	0.197	1	0	101%	70	130	0%	
Bromomethane	A	ppbv	10.18	10.18		9.3	0	0	0.075	1	0	109%	70	130	0%	
Carbon disulfide	A	ppbv	10.8	10.8		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.45	10.45		9.5	0	0	0.114	1	0	110%	70	130	0%	
Chlorobenzene	A	ppbv	9.92	9.92		9.9	0	0	0.275	1	0	100%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.96	9.96		9.2	0	0	0.165	1	0	108%	70	130	0%	
Chloroethane	A	ppbv	10.21	10.21		9.8	0	0	0.063	1	0	104%	70	130	0%	
Chloroform	A	ppbv	11.14	11.14		9.4	0	0	0.126	1	0	119%	70	130	0%	
Chloromethane	A	ppbv	10.5	10.5		9.8	0	0	0.104	1	0	107%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
860875	CCV2 VOA1 103111	EPA_TO15	CCV	.\1\DATA\11011111	1/2/2011 3:04:0	1	R43931		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	10.45	10.45		9.8	0	0	0.107	1	0	107%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.83	9.83		9.5	0	0	0.166	1	0	103%	70	130	0%	
Cyclohexane	A	ppbv	11.38	11.38		9.8	0	0	0.684	2	0	116%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.75	9.75		9.2	0	0	0.086	1	0	106%	70	130	0%	
Ethanol	A	ppbv	10.17	10.17		9.2	0	0	1.962	5	0	111%	70	130	0%	
Ethyl acetate	A	ppbv	10.41	10.41		9.8	0	0	0.157	1	0	106%	70	130	0%	
Ethylbenzene	A	ppbv	10.02	10.02		9.8	0	0	0.737	2	0	102%	70	130	0%	
Heptane	A	ppbv	10.99	10.99		9.9	0	0	0.249	1	0	111%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.06	9.06		9.4	0	0	0.374	2	0	96%	70	130	0%	
m,p-Xylene	A	ppbv	20.56	20.56		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.84	10.84		10	0	0	2.077	5	0	108%	70	130	0%	
n-Hexane	A	ppbv	11.03	11.03		10.1	0	0	0.692	2	0	109%	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	10.06	10.06		10	0	0	0.258	1	0	101%	70	130	0%	
Propylene	A	ppbv	10.88	10.88		10.2	0	0	0.075	1	0	107%	70	130	0%	
Styrene	A	ppbv	9.82	9.82		9.8	0	0	0.263	1	0	100%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.51	10.51		9.9	0	0	0.228	1	0	106%	70	130	0%	
Tetrachloroethene	A	ppbv	9.89	9.89		9.6	0	0	0.148	1	0	103%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.72	10.72		10	0	0	0.201	1	0	107%	70	130	0%	
Toluene	A	ppbv	9.99	9.99		9.8	0	0	0.158	1	0	102%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.77	10.77		9.8	0	0	0.117	1	0	110%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.4	9.4		9.1	0	0	0.171	1	0	103%	70	130	0%	
Trichloroethene	A	ppbv	9.88	9.88		9.6	0	0	0.119	1	0	103%	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	11.78	11.78		9.9	0	0	0.266	1	0	119%	70	130	0%	
Vinyl chloride	A	ppbv	12.05	12.05		9.4	0	0	0.072	1	0	128%	70	130	0%	
Xylenes, Total	C	ppbv	30.62	30.62		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	12.62	12.62		12.5	0	0	0	0	0	101%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110111\11011111.D Vial: 2
Acq On : 2 Nov 2011 3:04 am Operator: RACHEL HILL
Sample : CCV2 VOA1 103111 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 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	106	0.00
2	T	Propylene	1.318	1.405	-6.6	103	0.00
3	T	Dichlorodifluoromethane	3.397	3.600	-6.0	105	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.225	2.377	-6.8	107	0.00
5	T	Chloromethane	1.416	1.565	-10.5	101	0.00
6	T	Vinyl chloride	1.431	1.834	-28.2	100	0.00
7	T	1,3-Butadiene	1.274	1.557	-22.2	104	0.00
8	T	Bromomethane	1.211	1.326	-9.5	107	0.00
9	T	Chloroethane	0.750	0.832	-10.9	106	0.00
10	T	Trichlorofluoromethane	2.980	3.261	-9.4	105	0.00
11	T	Ethanol	0.350	0.387	-10.6	105	0.00
12	T	Freon113	2.337	2.622	-12.2	105	0.00
13	T	1,1-Dichloroethene	1.958	2.173	-11.0	105	0.00
14	T	Acetone	1.978	2.079	-5.1	102	0.00
15	T	Carbon disulfide	3.208	3.571	-11.3	106	0.00
16	T	2-Propanol	1.827	1.943	-6.3	104	0.00
17	T	Methylene chloride	1.548	1.678	-8.4	103	0.00
18	T	tert-Butyl Methyl Ether	2.575	2.733	-6.1	103	0.00
19	T	trans-1,2-Dichloroethene	1.898	2.086	-9.9	104	0.00
20	T	n-Hexane	2.082	2.274	-9.2	103	0.00
21	T	1,1-Dichloroethane	2.142	2.344	-9.4	105	0.00
22	T	Vinyl acetate	2.841	3.379	-18.9	102	0.00
23	T	cis-1,2-Dichloroethene	1.160	1.238	-6.7	104	0.00
24	T	2-Butanone	2.010	2.135	-6.2	101	0.00
25	T	Ethyl acetate	2.611	2.773	-6.2	102	0.00
26	T	Tetrahydrofuran	1.292	1.386	-7.3	102	0.00
27	T	Chloroform	2.411	2.740	-13.6	104	0.00
28	T	1,1,1-Trichloroethane	2.291	2.629	-14.8	103	0.00
29	T	Cyclohexane	2.102	2.441	-16.1	103	0.00
30	T	Carbon tetrachloride	2.076	2.285	-10.1	105	0.00
31	T	Benzene	2.847	3.053	-7.2	103	0.00
32	T	1,2-Dichloroethane	1.403	1.546	-10.2	102	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
34	T	Heptane	0.889	0.987	-11.0	102	0.00
35	T	Trichloroethene	0.463	0.476	-2.8	105	0.00
36	T	1,2-Dichloropropane	0.372	0.382	-2.7	102	0.00
37	T	1,4-Dioxane	0.132	0.133	-0.8	106	0.00
38	T	Bromodichloromethane	0.681	0.709	-4.1	104	0.00
39	T	cis-1,3-Dichloropropene	0.562	0.581	-3.4	104	0.00
40	T	4-Methyl-2-pentanone	0.247	0.247	0.0	103	0.00
41	T	Toluene	0.954	0.973	-2.0	103	0.00
42	T	trans-1,3-Dichloropropene	0.482	0.498	-3.3	104	0.00
43	T	1,1,2-Trichloroethane	0.332	0.333	-0.3	103	0.00
44	T	Tetrachloroethene	0.501	0.516	-3.0	104	0.00
45	T	2-Hexanone	0.534	0.532	0.4	102	0.00
46	T	Chlorodibromomethane	0.513	0.522	-1.8	105	0.00
47	T	1,2-Dibromoethane	0.487	0.492	-1.0	104	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
49	T	Chlorobenzene	0.942	0.944	-0.2	103	0.00
50	T	Ethylbenzene	1.571	1.607	-2.3	104	0.00
51	T	m,p-Xylene	1.263	1.352	-7.0	103	0.00
52	T	o-Xylene	1.160	1.167	-0.6	104	0.00
53	T	Styrene	0.802	0.804	-0.2	104	0.00
54	T	Bromoform	0.609	0.615	-1.0	105	0.00
55	S	4-Bromofluorobenzene	0.596	0.602	-1.0	105	0.00

(#) = Out of Range
11011111.D 110111V1.M Thu Dec 01 14:43:51 2011 Page 1

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110111\11011111.D Vial: 2
Acq On : 2 Nov 2011 3:04 am Operator: RACHEL HILL
Sample : CCV2 VOA1 103111 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 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)
56	T	1,1,2,2-Tetrachloroethane	0.864	0.863	0.1	103	0.00
57	T	4-Ethyltoluene	1.427	1.394	2.3	104	0.00
58	T	1,3,5-Trimethylbenzene	1.230	1.182	3.9	104	0.00
59	T	1,2,4-Trimethylbenzene	1.144	1.079	5.7	102	0.00
60	T	1,3-Dichlorobenzene	0.627	0.598	4.6	101	0.00
61	T	1,4-Dichlorobenzene	0.585	0.541	7.5	101	0.00
62	T	Benzyl chloride	0.697	0.736	-5.6	104	0.00
63	T	1,2-Dichlorobenzene	0.576	0.531	7.8	102	0.00
64	T	1,2,4-Trichlorobenzene	0.080	0.069	13.7	102	0.00
65	T	Hexachlorobutadiene	0.199	0.192	3.5	107	0.00
66		Naphthalene	0.124	0.110	11.3	108	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110111\11011111.D Vial: 2
Acq On : 2 Nov 2011 3:04 am Operator: RACHEL HILL
Sample : CCV2 VOA1 103111 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 2 7:38 2011 Quant Results File: 110111V1.RES

Quant Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 2011
Response via : Initial Calibration
DataAcq Meth : 110111V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	514797	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1588118	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1020250	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	613867	12.62	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 100.96%				
Target Compounds							Qvalue
2) Propylene	5.53	41	590260	10.88	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1363824	9.75	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	929933	10.15	ppbv	#	71
5) Chloromethane	6.00	50	612118	10.50	ppbv		99
6) Vinyl chloride	6.21	62	709845	12.05	ppbv		99
7) 1,3-Butadiene	6.26	39	628576	11.98	ppbv		91
8) Bromomethane	6.85	94	507873	10.18	ppbv		98
9) Chloroethane	7.01	64	315208	10.21	ppbv		96
10) Trichlorofluoromethane	7.34	101	1289310	10.50	ppbv	#	98
11) Ethanol	7.56	45	146567	10.17	ppbv		98
12) Freon113	7.99	101	1058193	11.00	ppbv		88
13) 1,1-Dichloroethene	8.10	61	885996	10.99	ppbv	#	87
14) Acetone	8.19	43	856118	10.51	ppbv		92
15) Carbon disulfide	8.46	76	1426514	10.80	ppbv	#	100
16) 2-Propanol	8.23	45	808226	10.74	ppbv		83
17) Methylene chloride	8.75	49	691023	10.84	ppbv	#	79
18) tert-Butyl Methyl Ether	8.96	73	1114365	10.51	ppbv	#	89
19) trans-1,2-Dichloroethene	9.04	61	841801	10.77	ppbv	#	83
20) n-Hexane	9.22	57	945786	11.03	ppbv		89
21) 1,1-Dichloroethane	9.60	63	936236	10.61	ppbv	#	97
22) Vinyl acetate	9.53	43	1377827	11.78	ppbv	#	95
23) cis-1,2-Dichloroethene	10.28	96	499529	10.45	ppbv	#	82
24) 2-Butanone	10.25	43	870298	10.51	ppbv	#	89
25) Ethyl acetate	10.20	43	1119341	10.41	ppbv	#	98
26) Tetrahydrofuran	10.59	42	570601	10.72	ppbv		88
27) Chloroform	10.60	83	1105964	11.14	ppbv		100
28) 1,1,1-Trichloroethane	10.86	97	1039317	11.02	ppbv		95
29) Cyclohexane	10.86	56	985320	11.38	ppbv		87
30) Carbon tetrachloride	11.02	117	893855	10.45	ppbv		97
31) Benzene	11.30	78	1207230	10.30	ppbv		95
32) 1,2-Dichloroethane	11.37	62	617660	10.69	ppbv	#	98
34) Heptane	11.35	43	1242040	10.99	ppbv	#	88
35) Trichloroethene	12.03	130	580752	9.88	ppbv		92
36) 1,2-Dichloropropane	12.38	63	475685	10.06	ppbv		97
37) 1,4-Dioxane	12.46	88	161766	9.67	ppbv	#	82
38) Bromodichloromethane	12.67	83	865165	10.00	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	701496	9.83	ppbv		96
40) 4-Methyl-2-pentanone	13.33	58	314011	10.02	ppbv	#	91
41) Toluene	13.63	91	1211695	9.99	ppbv		97
42) trans-1,3-Dichloropropene	13.93	75	575701	9.40	ppbv		95
43) 1,1,2-Trichloroethane	14.20	97	414294	9.83	ppbv		96
44) Tetrachloroethene	14.33	166	629651	9.89	ppbv		98
45) 2-Hexanone	14.41	43	662132	9.76	ppbv		93
46) Chlorodibromomethane	14.75	129	649339	9.96	ppbv		99
47) 1,2-Dibromoethane	14.99	107	600220	9.70	ppbv		99
49) Chlorobenzene	15.58	112	762919	9.92	ppbv	#	87
50) Ethylbenzene	15.62	91	1285027	10.02	ppbv		91
51) m,p-Xylene	15.78	91	2119063	20.56	ppbv		90
52) o-Xylene	16.37	91	952736	10.06	ppbv	#	88

(#) = qualifier out of range (m) = manual integration
11011111.D 110111V1.M Thu Dec 01 14:43:48 2011 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110111\11011111.D Vial: 2
Acq On : 2 Nov 2011 3:04 am Operator: RACHEL HILL
Sample : CCV2 VOA1 103111 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 2 7:38 2011 Quant Results File: 110111V1.RES

Quant Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 2011
Response via : Initial Calibration
DataAcq Meth : 110111V1

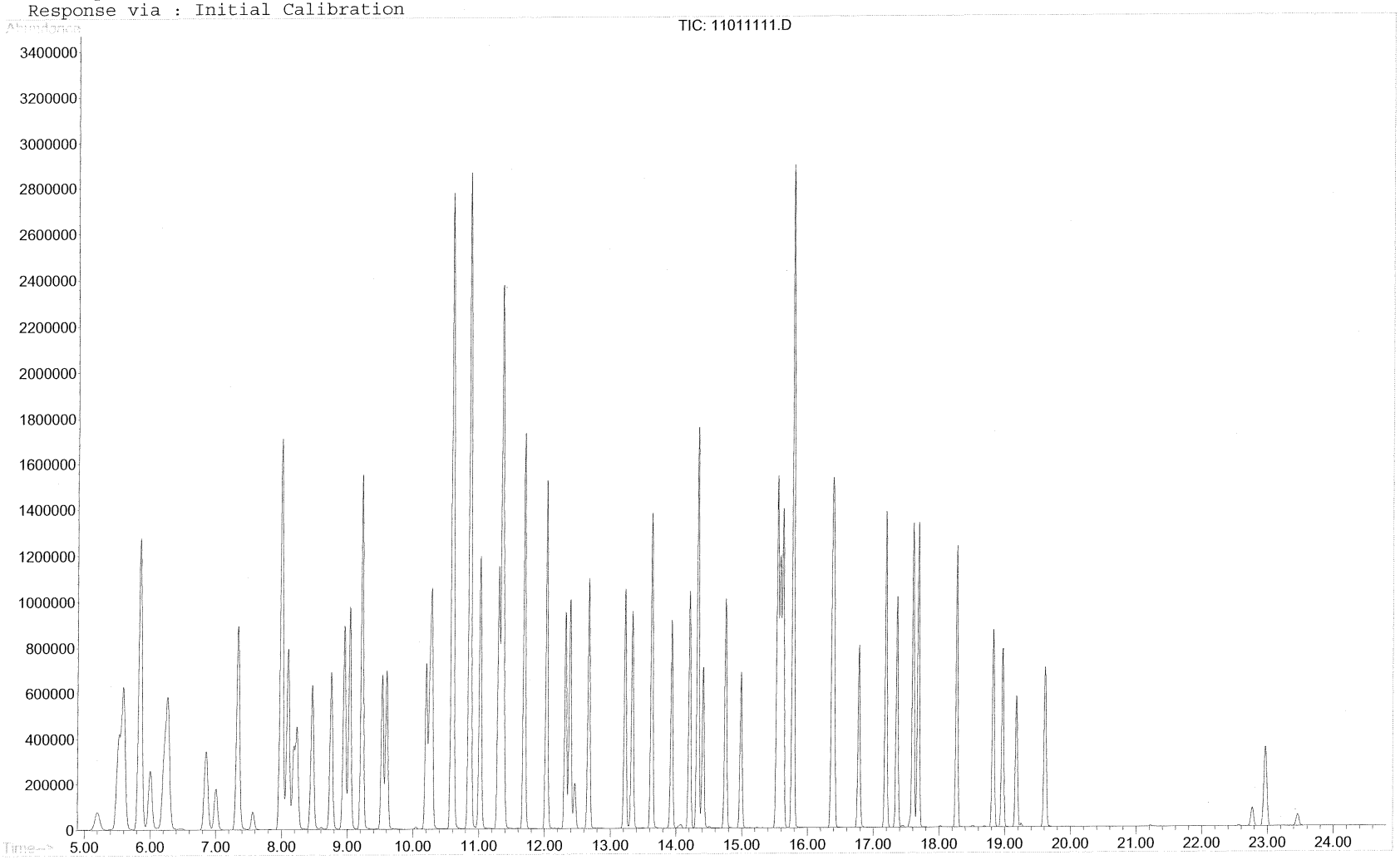
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53) Styrene	16.40	104	642763	9.82	ppbv		96
54) Bromoform	16.78	173	482124	9.70	ppbv	#	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	704418	9.99	ppbv	#	99
57) 4-Ethyltoluene	17.60	105	1115419	9.58	ppbv		95
58) 1,3,5-Trimethylbenzene	17.68	105	935479	9.32	ppbv		95
59) 1,2,4-Trimethylbenzene	18.27	105	863089	9.24	ppbv		96
60) 1,3-Dichlorobenzene	18.82	146	473444	9.25	ppbv	#	97
61) 1,4-Dichlorobenzene	18.97	146	423692	8.88	ppbv	#	97
62) Benzyl chloride	19.18	91	582711	10.24	ppbv		95
63) 1,2-Dichlorobenzene	19.61	146	420176	8.94	ppbv		97
64) 1,2,4-Trichlorobenzene	22.76	180	51306	7.85	ppbv		99
65) Hexachlorobutadiene	22.97	225	147163	9.06	ppbv		99
66) Naphthalene	23.45	128	82666	8.18	ppbv		99

(#) = qualifier out of range (m) = manual integration
11011111.D 110111V1.M Thu Dec 01 14:43:48 2011 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\110111\11011111.D Vial: 2
Acq On : 2 Nov 2011 3:04 am Operator: RACHEL HILL
Sample : CCV2 VOA1 103111 Inst : VOA 1
Misc : CCV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 2 7:38 2011 Quant Results File: 110111V1.RES

Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111103A **Run No.:** 44059

Analytical Run Date: 11/3/2011 **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 110311	BFB_TUNE	TUNE	R44059	11/3/2011 9:23:00 AM	Charles O`Bryan		
1ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 2:56:00 PM	Charles O`Bryan		
10ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 3:36:00 PM	Charles O`Bryan		
12ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 4:17:00 PM	Charles O`Bryan		
15ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 4:58:00 PM	Charles O`Bryan		
20ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 5:39:00 PM	Charles O`Bryan		
30ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 6:21:00 PM	Charles O`Bryan		
50ppbv ICAL	EPA_TO15	ICAL	R44059	11/3/2011 7:05:00 PM	Charles O`Bryan		
BFB2 VOA1 110311	BFB_TUNE	TUNE	R44059	11/3/2011 7:44:00 PM	Charles O`Bryan		
ICV VOA1 110311	EPA_TO15	ICV	R44059	11/3/2011 8:25:00 PM	Charles O`Bryan		
RLVS VOA1 110311	EPA_TO15	RLVS	R44059	11/3/2011 9:07:00 PM	Charles O`Bryan		
BLK VOA1 110311	EPA_TO15	MBLK	R44059	11/3/2011 9:54:00 PM	Charles O`Bryan		
1110757-023A	EPA_TO15	SAMP	R44059	11/3/2011 10:34:00 PM	Charles O`Bryan		
1110757-034A	EPA_TO15	SAMP	R44059	11/3/2011 11:15:00 PM	Charles O`Bryan		
1111023-023A	EPA_TO15	SAMP	R44059	11/4/2011 12:02:00 AM	Charles O`Bryan		
1111023-024A	EPA_TO15	SAMP	R44059	11/4/2011 12:49:00 AM	Charles O`Bryan		
1111023-027A	EPA_TO15	SAMP	R44059	11/4/2011 3:10:00 AM	Charles O`Bryan		
1111023-028A	EPA_TO15	SAMP	R44059	11/4/2011 3:57:00 AM	Charles O`Bryan		
1111023-029A	EPA_TO15	SAMP	R44059	11/4/2011 4:44:00 AM	Charles O`Bryan		
1111023-017A	EPA_TO15	SAMP	R44059	11/4/2011 5:31:00 AM	Charles O`Bryan		
1111023-018A	EPA_TO15	SAMP	R44059	11/4/2011 6:12:00 AM	Charles O`Bryan		Over diluted sample. Will re-run at lower dilution. Reported here to show that sample and duplicate were analyzed.
1111023-018ADUP	EPA_TO15	SAMP	R44059	11/4/2011 6:52:00 AM	Charles O`Bryan		
1111023-021A	EPA_TO15	SAMP	R44059	11/4/2011 8:54:00 AM	Charles O`Bryan		
1111023-022A	EPA_TO15	SAMP	R44059	11/4/2011 9:35:00 AM	Charles O`Bryan		
1111023-001A	EPA_TO15	SAMP	R44059	11/4/2011 10:22:00 AM	Charles O`Bryan		
1111023-002A	EPA_TO15	SAMP	R44059	11/4/2011 11:02:00 AM	Charles O`Bryan		
1111023-005A	EPA_TO15	SAMP	R44059	11/4/2011 11:43:00 AM	Charles O`Bryan		
1111023-030A	EPA_TO15	SAMP	R44059	11/4/2011 12:30:00 PM	Charles O`Bryan		
1111023-031A	EPA_TO15	SAMP	R44059	11/4/2011 1:17:00 PM	Charles O`Bryan		
1111023-032A	EPA_TO15	SAMP	R44059	11/4/2011 2:04:00 PM	Charles O`Bryan		
1111023-033A	EPA_TO15	SAMP	R44059	11/4/2011 2:52:00 PM	Charles O`Bryan		
1111023-034A	EPA_TO15	SAMP	R44059	11/4/2011 3:32:00 PM	Charles O`Bryan		
1111023-035A	EPA_TO15	SAMP	R44059	11/4/2011 4:12:00 PM	Charles O`Bryan		
1111023-012A	EPA_TO15	SAMP	R44059	11/4/2011 5:40:00 PM	Charles O`Bryan		
RLVS2 VOA1 11031	EPA_TO15	RLVS	R44059	11/4/2011 6:22:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
864034	ICV VOA1 110311	EPA_TO15	ICV	.\1\DATA\110311\11/3/2011 8:25:0		1	R44059		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	11.28	11.28		9.6	0	0	0.107	1	0	118%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.99	10.99		10	0	0	0.211	1	0	110%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.27	11.27		9.8	0	0	0.108	1	0	115%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.42	10.42		9.8	0	0	0.2	1	0	106%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.1	11.1		9.7	0	0	0.111	1	0	114%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.39	11.39		9.9	0	0	0.097	1	0	115%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.52	9.52		9.1	0	0	0.271	1	0	105%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.25	10.25		9.8	0	0	0.245	1	0	105%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.34	10.34		9.6	0	0	0.186	1	0	108%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.65	10.65		9.7	0	0	0.208	1	0	110%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.4	11.4		9.7	0	0	0.196	1	0	118%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.75	10.75		9.8	0	0	0.224	1	0	110%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.13	10.13		9.7	0	0	0.24	1	0	104%	70	130	0%	
1,3-Butadiene	A	ppbv	11.22	11.22		9.8	0	0	0.152	1	0	114%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.48	10.48		9.7	0	0	0.202	1	0	108%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	10.49	10.49		9.6	0	0	0.194	1	0	109%	70	130	0%	
1,4-Dioxane	A	ppbv	10.59	10.59		9.6	0	0	0.128	1	0	110%	70	130	0%	
2-Butanone	A	ppbv	10.91	10.91		9.9	0	0	0.287	1	0	110%	70	130	0%	
2-Hexanone	A	ppbv	10.51	10.51		9.8	0	0	0.135	1	0	107%	70	130	0%	
2-Propanol	A	ppbv	11.3	11.3		10.1	0	0	0.329	1	0	112%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.78	10.78		10	0	0	0.157	1	0	108%	70	130	0%	
Acetone	A	ppbv	11.44	11.44		10	0	0	0.43	1	0	114%	70	130	0%	
Benzene	A	ppbv	11.03	11.03		9.6	0	0	0.126	1	0	115%	70	130	0%	
Benzyl chloride	A	ppbv	11.78	11.78		9.7	0	0	0.155	1	0	121%	70	130	0%	
Bromodichloromethane	A	ppbv	10.48	10.48		9.6	0	0	0.156	1	0	109%	70	130	0%	
Bromoform	A	ppbv	10.45	10.45		9.6	0	0	0.197	1	0	109%	70	130	0%	
Bromomethane	A	ppbv	10.16	10.16		9.3	0	0	0.075	1	0	109%	70	130	0%	
Carbon disulfide	A	ppbv	10.89	10.89		9.7	0	0	0.093	1	0	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.9	10.9		9.5	0	0	0.114	1	0	115%	70	130	0%	
Chlorobenzene	A	ppbv	10.52	10.52		9.9	0	0	0.275	1	0	106%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.45	10.45		9.2	0	0	0.165	1	0	114%	70	130	0%	
Chloroethane	A	ppbv	10.25	10.25		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	11.48	11.48		9.4	0	0	0.126	1	0	122%	70	130	0%	
Chloromethane	A	ppbv	10.29	10.29		9.8	0	0	0.104	1	0	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
864034	ICV VOA1 110311	EPA_TO15	ICV	\1\DATA\110311\11	3/2011 8:25:0	1	R44059		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	10.93	10.93		9.8	0	0	0.107	1	0	112%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.39	10.39		9.5	0	0	0.166	1	0	109%	70	130	0%	
Cyclohexane	A	ppbv	11.5	11.5		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.86	9.86		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	10.57	10.57		9.2	0	0	1.962	5	0	115%	70	130	0%	
Ethyl acetate	A	ppbv	11.23	11.23		9.8	0	0	0.157	1	0	115%	70	130	0%	
Ethylbenzene	A	ppbv	10.62	10.62		9.8	0	0	0.737	2	0	108%	70	130	0%	
Heptane	A	ppbv	11.04	11.04		9.9	0	0	0.249	1	0	112%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.37	10.37		9.4	0	0	0.374	2	0	110%	70	130	0%	
m,p-Xylene	A	ppbv	21.71	21.71		19.2	0	0	0.524	2	0	113%	70	130	0%	
Methylene chloride	A	ppbv	11.2	11.2		10	0	0	2.077	5	0	112%	70	130	0%	
n-Hexane	A	ppbv	11.43	11.43		10.1	0	0	0.692	2	0	113%	70	130	0%	
Naphthalene	A	ppbv	9.93	9.93		9.2	0	0	0.247	1	0	108%	70	130	0%	
o-Xylene	A	ppbv	10.74	10.74		10	0	0	0.258	1	0	107%	70	130	0%	
Propylene	A	ppbv	10.78	10.78		10.2	0	0	0.075	1	0	106%	70	130	0%	
Styrene	A	ppbv	10.44	10.44		9.8	0	0	0.263	1	0	107%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.6	11.6		9.9	0	0	0.228	1	0	117%	70	130	0%	
Tetrachloroethene	A	ppbv	10.21	10.21		9.6	0	0	0.148	1	0	106%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.4	11.4		10	0	0	0.201	1	0	114%	70	130	0%	
Toluene	A	ppbv	10.61	10.61		9.8	0	0	0.158	1	0	108%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.2	11.2		9.8	0	0	0.117	1	0	114%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.03	10.03		9.1	0	0	0.171	1	0	110%	70	130	0%	
Trichloroethene	A	ppbv	10.19	10.19		9.6	0	0	0.119	1	0	106%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.87	10.87		9.6	0	0	0.148	1	0	113%	70	130	0%	
Vinyl acetate	A	ppbv	12.37	12.37		9.9	0	0	0.266	1	0	125%	70	130	0%	
Vinyl chloride	A	ppbv	11.54	11.54		9.4	0	0	0.072	1	0	123%	70	130	0%	
Xylenes, Total	C	ppbv	32.45	32.45		29.2	0	0	0.782	3	0	111%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	13.08	13.08		12.5	0	0	0	0	0	105%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110311\11031113.D Vial: 3
Acq On : 3 Nov 2011 8:25 pm Operator: RACHEL HILL
Sample : ICV VOA1 110311 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 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	117	0.00
2	T	Propylene	1.346	1.422	-5.6	110	0.01
3	T	Dichlorodifluoromethane	3.327	3.566	-7.2	113	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.223	2.376	-6.9	114	0.00
5	T	Chloromethane	1.499	1.624	-8.3	106	0.00
6	T	Vinyl chloride	1.542	1.893	-22.8	108	0.00
7	T	1,3-Butadiene	1.315	1.506	-14.5	109	0.00
8	T	Bromomethane	1.224	1.337	-9.2	113	0.00
9	T	Chloroethane	0.772	0.860	-11.4	111	0.00
10	T	Trichlorofluoromethane	2.916	3.302	-13.2	116	0.00
11	T	Ethanol	0.375	0.431	-14.9	105	0.00
12	T	Freon113	2.378	2.736	-15.1	111	0.00
13	T	1,1-Dichloroethene	1.980	2.279	-15.1	110	0.00
14	T	Acetone	2.057	2.353	-14.4	103	0.00
15	T	Carbon disulfide	3.322	3.731	-12.3	111	0.00
16	T	2-Propanol	1.908	2.136	-11.9	106	0.00
17	T	Methylene chloride	1.588	1.778	-12.0	107	0.00
18	T	tert-Butyl Methyl Ether	2.699	3.161	-17.1	104	0.00
19	T	trans-1,2-Dichloroethene	1.914	2.187	-14.3	109	0.00
20	T	n-Hexane	2.134	2.414	-13.1	107	0.00
21	T	1,1-Dichloroethane	2.236	2.557	-14.4	106	0.00
22	T	Vinyl acetate	3.075	3.843	-25.0	102	0.00
23	T	cis-1,2-Dichloroethene	1.178	1.313	-11.5	108	0.00
24	T	2-Butanone	2.159	2.380	-10.2	94	0.00
25	T	Ethyl acetate	2.810	3.221	-14.6	101	0.00
26	T	Tetrahydrofuran	1.384	1.579	-14.1	101	0.00
27	T	Chloroform	2.451	2.871	-17.1	110	0.00
28	T	1,1,1-Trichloroethane	2.329	2.736	-17.5	110	0.00
29	T	Cyclohexane	2.189	2.569	-17.4	106	0.00
30	T	Carbon tetrachloride	2.065	2.369	-14.7	111	0.00
31	T	Benzene	3.008	3.455	-14.9	103	0.00
32	T	1,2-Dichloroethane	1.423	1.671	-17.4	105	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	119	0.00
34	T	Heptane	0.911	1.017	-11.6	105	0.00
35	T	Trichloroethene	0.462	0.490	-6.1	109	0.00
36	T	1,2-Dichloropropane	0.390	0.428	-9.7	102	0.00
37	T	1,4-Dioxane	0.139	0.154	-10.8	109	0.00
38	T	Bromodichloromethane	0.695	0.759	-9.2	107	0.00
39	T	cis-1,3-Dichloropropene	0.565	0.618	-9.4	105	0.00
40	T	4-Methyl-2-pentanone	0.262	0.283	-8.0	104	0.00
41	T	Toluene	1.003	1.086	-8.3	104	0.00
42	T	trans-1,3-Dichloropropene	0.482	0.531	-10.2	106	0.00
43	T	1,1,2-Trichloroethane	0.340	0.362	-6.5	105	0.00
44	T	Tetrachloroethene	0.504	0.537	-6.5	109	0.00
45	T	2-Hexanone	0.557	0.598	-7.4	103	0.00
46	T	Chlorodibromomethane	0.516	0.550	-6.6	107	0.00
47	T	1,2-Dibromoethane	0.479	0.515	-7.5	107	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	118	0.00
49	T	Chlorobenzene	0.972	1.033	-6.3	105	0.00
50	T	Ethylbenzene	1.659	1.798	-8.4	104	0.00
51	T	m,p-Xylene	1.330	1.504	-13.1	105	0.00
52	T	o-Xylene	1.209	1.298	-7.4	105	0.00
53	T	Styrene	0.816	0.870	-6.6	106	0.00
54	T	Bromoform	0.598	0.651	-8.9	110	0.00
55	S	4-Bromofluorobenzene	0.557	0.583	-4.7	124	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110311\11031113.D Vial: 3
Acq On : 3 Nov 2011 8:25 pm Operator: RACHEL HILL
Sample : ICV VOA1 110311 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 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)
56	T	1,1,2,2-Tetrachloroethane	0.860	0.946	-10.0	111	0.00
57	T	4-Ethyltoluene	1.357	1.433	-5.6	111	0.00
58	T	1,3,5-Trimethylbenzene	1.140	1.190	-4.4	111	0.00
59	T	1,2,4-Trimethylbenzene	1.051	1.099	-4.6	113	0.00
60	T	1,3-Dichlorobenzene	0.630	0.680	-7.9	115	0.00
61	T	1,4-Dichlorobenzene	0.582	0.636	-9.3	114	0.00
62	T	Benzyl chloride	0.727	0.882	-21.3	113	0.00
63	T	1,2-Dichlorobenzene	0.571	0.627	-9.8	116	0.00
64	T	1,2,4-Trichlorobenzene	0.103	0.108	-4.9	108	0.00
65	T	Hexachlorobutadiene	0.242	0.267	-10.3	108	0.00
66		Naphthalene	0.163	0.176	-8.0	111	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110311\11031113.D Vial: 3
Acq On : 3 Nov 2011 8:25 pm Operator: RACHEL HILL
Sample : ICV VOA1 110311 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 4 9:40 2011 Quant Results File: 110311V1.RES

Quant Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 2011
Response via : Initial Calibration
DataAcq Meth : 110111V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	500567	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1581788	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	978138	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	570566	13.08	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 104.64%				
Target Compounds							Qvalue
2) Propylene	5.52	41	580960	10.78	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1313657	9.86	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	903880	10.15	ppbv	#	71
5) Chloromethane	6.00	50	617773	10.29	ppbv		99
6) Vinyl chloride	6.21	62	712566	11.54	ppbv		99
7) 1,3-Butadiene	6.26	39	590861	11.22	ppbv		92
8) Bromomethane	6.85	94	497865	10.16	ppbv		99
9) Chloroethane	7.00	64	316707	10.25	ppbv		96
10) Trichlorofluoromethane	7.34	101	1269329	10.87	ppbv	#	98
11) Ethanol	7.56	45	158649	10.57	ppbv		99
12) Freon113	7.99	101	1073851	11.27	ppbv		88
13) 1,1-Dichloroethene	8.09	61	903315	11.39	ppbv	#	87
14) Acetone	8.18	43	942309	11.44	ppbv		94
15) Carbon disulfide	8.46	76	1449236	10.89	ppbv	#	100
16) 2-Propanol	8.23	45	863813	11.30	ppbv		86
17) Methylene chloride	8.75	49	712175	11.20	ppbv	#	80
18) tert-Butyl Methyl Ether	8.95	73	1253094	11.60	ppbv	#	89
19) trans-1,2-Dichloroethene	9.04	61	858270	11.20	ppbv	#	84
20) n-Hexane	9.22	57	976202	11.43	ppbv		90
21) 1,1-Dichloroethane	9.59	63	993316	11.10	ppbv	#	98
22) Vinyl acetate	9.53	43	1523399	12.37	ppbv	#	95
23) cis-1,2-Dichloroethene	10.28	96	515406	10.93	ppbv	#	83
24) 2-Butanone	10.25	43	943440	10.91	ppbv	#	90
25) Ethyl acetate	10.20	43	1263903	11.23	ppbv	#	98
26) Tetrahydrofuran	10.58	42	632155	11.40	ppbv		88
27) Chloroform	10.60	83	1126880	11.48	ppbv		100
28) 1,1,1-Trichloroethane	10.86	97	1051835	11.28	ppbv		95
29) Cyclohexane	10.86	56	1008189	11.50	ppbv		87
30) Carbon tetrachloride	11.02	117	901404	10.90	ppbv		97
31) Benzene	11.30	78	1328138	11.03	ppbv		95
32) 1,2-Dichloroethane	11.37	62	649246	11.40	ppbv	#	98
34) Heptane	11.35	43	1273577	11.04	ppbv	#	88
35) Trichloroethene	12.03	130	595159	10.19	ppbv		93
36) 1,2-Dichloropropane	12.38	63	530832	10.75	ppbv		97
37) 1,4-Dioxane	12.46	88	186790	10.59	ppbv	#	83
38) Bromodichloromethane	12.67	83	921478	10.48	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	743146	10.39	ppbv		96
40) 4-Methyl-2-pentanone	13.33	58	357555	10.78	ppbv	#	91
41) Toluene	13.63	91	1346434	10.61	ppbv		97
42) trans-1,3-Dichloropropene	13.93	75	611056	10.03	ppbv		96
43) 1,1,2-Trichloroethane	14.20	97	448376	10.42	ppbv		96
44) Tetrachloroethene	14.33	166	651967	10.21	ppbv		98
45) 2-Hexanone	14.41	43	741094	10.51	ppbv		93
46) Chlorodibromomethane	14.75	129	682261	10.45	ppbv		99
47) 1,2-Dibromoethane	14.99	107	626053	10.34	ppbv		99
49) Chlorobenzene	15.58	112	800563	10.52	ppbv	#	86
50) Ethylbenzene	15.63	91	1379156	10.62	ppbv		92
51) m,p-Xylene	15.78	91	2259255	21.71	ppbv		91
52) o-Xylene	16.37	91	1015894	10.74	ppbv	#	89

(#) = qualifier out of range (m) = manual integration
11031113.D 110311V1.M Wed Nov 09 14:05:00 2011

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110311\11031113.D Vial: 3
Acq On : 3 Nov 2011 8:25 pm Operator: RACHEL HILL
Sample : ICV VOA1 110311 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 4 9:40 2011 Quant Results File: 110311V1.RES

Quant Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 2011
Response via : Initial Calibration
DataAcq Meth : 110111V1

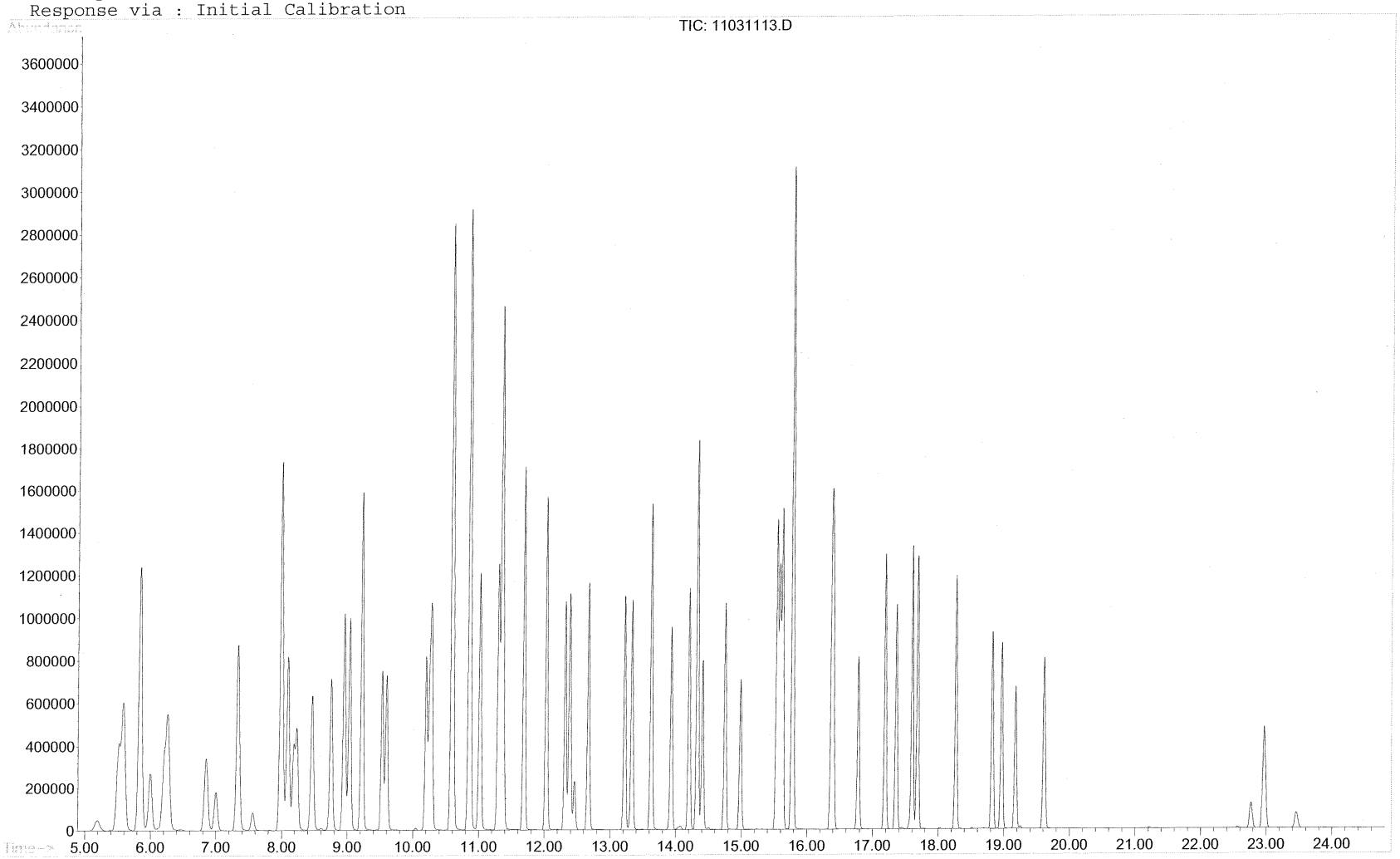
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.40	104	667065	10.44	ppbv		97
54)	Bromoform	16.78	173	489278	10.45	ppbv	#	98
56)	1,1,2,2-Tetrachloroethane	17.36	83	739942	10.99	ppbv	#	99
57)	4-Ethyltoluene	17.60	105	1098933	10.35	ppbv		95
58)	1,3,5-Trimethylbenzene	17.69	105	903560	10.13	ppbv		96
59)	1,2,4-Trimethylbenzene	18.27	105	842929	10.25	ppbv		96
60)	1,3-Dichlorobenzene	18.82	146	516238	10.48	ppbv		97
61)	1,4-Dichlorobenzene	18.97	146	477642	10.49	ppbv		97
62)	Benzyl chloride	19.18	91	669750	11.78	ppbv		96
63)	1,2-Dichlorobenzene	19.61	146	475755	10.65	ppbv		98
64)	1,2,4-Trichlorobenzene	22.77	180	76779	9.52	ppbv		99
65)	Hexachlorobutadiene	22.97	225	196622	10.37	ppbv		99
66)	Naphthalene	23.45	128	127037	9.93	ppbv		99

(#) = qualifier out of range (m) = manual integration
11031113.D 110311V1.M Wed Nov 09 14:05:00 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\110311\11031113.D Vial: 3
Acq On : 3 Nov 2011 8:25 pm Operator: RACHEL HILL
Sample : ICV VOA1 110311 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 4 9:40 2011 Quant Results File: 110311V1.RES

Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111108A **Run No.:** 44111

Analytical Run Date: 11/8/2011 **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 110811	BFB_TUNE	TUNE	R44111	11/8/2011 12:59:00 PM	Charles O`Bryan		
1ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 2:24:00 PM	Charles O`Bryan		
10ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 3:06:00 PM	Charles O`Bryan		
12ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 3:47:00 PM	Charles O`Bryan		
15ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 4:29:00 PM	Charles O`Bryan		
20ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 5:11:00 PM	Charles O`Bryan		
30ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 5:54:00 PM	Charles O`Bryan		
50ppbv ICAL	EPA_TO15	ICAL	R44111	11/8/2011 6:38:00 PM	Charles O`Bryan		
BFB2 VOA1 110811	BFB_TUNE	TUNE	R44111	11/8/2011 7:19:00 PM	Charles O`Bryan		
ICV VOA1 110811	EPA_TO15	ICV	R44111	11/8/2011 9:35:00 PM	Charles O`Bryan		
RLVS1 VOA1 11081	EPA_TO15	RLVS	R44111	11/8/2011 10:17:00 PM	Charles O`Bryan		
BLK VOA1 110811	EPA_TO15	MBLK	R44111	11/8/2011 11:05:00 PM	Charles O`Bryan		
1111023-025A	EPA_TO15	SAMP	R44111	11/8/2011 11:46:00 PM	Charles O`Bryan		
1111023-026A	EPA_TO15	SAMP	R44111	11/9/2011 12:27:00 AM	Charles O`Bryan		
1111023-018A	EPA_TO15	SAMP	R44111	11/9/2011 1:53:00 AM	Charles O`Bryan		
1111023-019A	EPA_TO15	SAMP	R44111	11/9/2011 2:34:00 AM	Charles O`Bryan		
1111023-002A	EPA_TO15	SAMP	R44111	11/9/2011 4:00:00 AM	Charles O`Bryan		
1111023-003A	EPA_TO15	SAMP	R44111	11/9/2011 4:41:00 AM	Charles O`Bryan		
1111023-003ADUP	EPA_TO15	SAMP	R44111	11/9/2011 5:22:00 AM	Charles O`Bryan		
1111023-010A	EPA_TO15	SAMP	R44111	11/9/2011 6:10:00 AM	Charles O`Bryan		
1111023-011A	EPA_TO15	SAMP	R44111	11/9/2011 6:58:00 AM	Charles O`Bryan		
1111023-013A	EPA_TO15	SAMP	R44111	11/9/2011 7:46:00 AM	Charles O`Bryan		
1111023-014A	EPA_TO15	SAMP	R44111	11/9/2011 8:34:00 AM	Charles O`Bryan		
1111023-015A	EPA_TO15	SAMP	R44111	11/9/2011 11:46:00 AM	Charles O`Bryan		
1111023-016A	EPA_TO15	SAMP	R44111	11/9/2011 3:11:00 PM	Charles O`Bryan		
1111023-020A	EPA_TO15	SAMP	R44111	11/9/2011 4:42:00 PM	Charles O`Bryan		
1111023-035A	EPA_TO15	SAMP	R44111	11/9/2011 5:23:00 PM	Charles O`Bryan		
RLVS2 VOA1 11081	EPA_TO15	RLVS	R44111	11/9/2011 6:05:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
865074	ICV VOA1 110811	EPA_TO15	ICV	\\1\DATA\110811\11/8/2011 9:35:0		1	R44111		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	11.36	11.36		9.6	0	0	0.107	1	0	118%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	11.13	11.13		10	0	0	0.211	1	0	111%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.57	11.57		9.8	0	0	0.108	1	0	118%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.33	10.33		9.8	0	0	0.2	1	0	105%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.28	11.28		9.7	0	0	0.111	1	0	116%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.53	11.53		9.9	0	0	0.097	1	0	116%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.25	10.25		9.1	0	0	0.271	1	0	113%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	10.63	10.63		9.8	0	0	0.245	1	0	108%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.3	10.3		9.6	0	0	0.186	1	0	107%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	11.16	11.16		9.7	0	0	0.208	1	0	115%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.08	11.08		9.7	0	0	0.196	1	0	114%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.48	10.48		9.8	0	0	0.224	1	0	107%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	10.22	10.22		9.7	0	0	0.24	1	0	105%	70	130	0%	
1,3-Butadiene	A	ppbv	11.34	11.34		9.8	0	0	0.152	1	0	116%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.79	10.79		9.7	0	0	0.202	1	0	111%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	10.69	10.69		9.6	0	0	0.194	1	0	111%	70	130	0%	
1,4-Dioxane	A	ppbv	11.45	11.45		9.6	0	0	0.128	1	0	119%	70	130	0%	
2-Butanone	A	ppbv	11.5	11.5		9.9	0	0	0.287	1	0	116%	70	130	0%	
2-Hexanone	A	ppbv	10.87	10.87		9.8	0	0	0.135	1	0	111%	70	130	0%	
2-Propanol	A	ppbv	11.75	11.75		10.1	0	0	0.329	1	0	116%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	11.02	11.02		10	0	0	0.157	1	0	110%	70	130	0%	
Acetone	A	ppbv	11.73	11.73		10	0	0	0.43	1	0	117%	70	130	0%	
Benzene	A	ppbv	10.85	10.85		9.6	0	0	0.126	1	0	113%	70	130	0%	
Benzyl chloride	A	ppbv	11.72	11.72		9.7	0	0	0.155	1	0	121%	70	130	0%	
Bromodichloromethane	A	ppbv	10.58	10.58		9.6	0	0	0.156	1	0	110%	70	130	0%	
Bromoform	A	ppbv	10.35	10.35		9.6	0	0	0.197	1	0	108%	70	130	0%	
Bromomethane	A	ppbv	10.91	10.91		9.3	0	0	0.075	1	0	117%	70	130	0%	
Carbon disulfide	A	ppbv	11.26	11.26		9.7	0	0	0.093	1	0	116%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.13	11.13		9.5	0	0	0.114	1	0	117%	70	130	0%	
Chlorobenzene	A	ppbv	10.39	10.39		9.9	0	0	0.275	1	0	105%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.41	10.41		9.2	0	0	0.165	1	0	113%	70	130	0%	
Chloroethane	A	ppbv	10.72	10.72		9.8	0	0	0.063	1	0	109%	70	130	0%	
Chloroform	A	ppbv	11.44	11.44		9.4	0	0	0.126	1	0	122%	70	130	0%	
Chloromethane	A	ppbv	10.32	10.32		9.8	0	0	0.104	1	0	105%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
865074	ICV VOA1 110811	EPA_TO15	ICV	\1\DATA\110811\11/8/2011 9:35:0		1	R44111		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	10.97	10.97		9.8	0	0	0.107	1	0	112%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.31	10.31		9.5	0	0	0.166	1	0	109%	70	130	0%	
Cyclohexane	A	ppbv	11.24	11.24		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.79	10.79		9.2	0	0	0.086	1	0	117%	70	130	0%	
Ethanol	A	ppbv	11.22	11.22		9.2	0	0	1.962	5	0	122%	70	130	0%	
Ethyl acetate	A	ppbv	11.14	11.14		9.8	0	0	0.157	1	0	114%	70	130	0%	
Ethylbenzene	A	ppbv	10.32	10.32		9.8	0	0	0.737	2	0	105%	70	130	0%	
Heptane	A	ppbv	10.79	10.79		9.9	0	0	0.249	1	0	109%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.38	10.38		9.4	0	0	0.374	2	0	110%	70	130	0%	
m,p-Xylene	A	ppbv	20.88	20.88		19.2	0	0	0.524	2	0	109%	70	130	0%	
Methylene chloride	A	ppbv	11.15	11.15		10	0	0	2.077	5	0	112%	70	130	0%	
n-Hexane	A	ppbv	11.38	11.38		10.1	0	0	0.692	2	0	113%	70	130	0%	
Naphthalene	A	ppbv	10.46	10.46		9.2	0	0	0.247	1	0	114%	70	130	0%	
o-Xylene	A	ppbv	10.54	10.54		10	0	0	0.258	1	0	105%	70	130	0%	
Propylene	A	ppbv	11.13	11.13		10.2	0	0	0.075	1	0	109%	70	130	0%	
Styrene	A	ppbv	10.31	10.31		9.8	0	0	0.263	1	0	105%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.53	11.53		9.9	0	0	0.228	1	0	116%	70	130	0%	
Tetrachloroethene	A	ppbv	10.29	10.29		9.6	0	0	0.148	1	0	107%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.32	11.32		10	0	0	0.201	1	0	113%	70	130	0%	
Toluene	A	ppbv	10.5	10.5		9.8	0	0	0.158	1	0	107%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.36	11.36		9.8	0	0	0.117	1	0	116%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.99	9.99		9.1	0	0	0.171	1	0	110%	70	130	0%	
Trichloroethene	A	ppbv	10.28	10.28		9.6	0	0	0.119	1	0	107%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.43	11.43		9.6	0	0	0.148	1	0	119%	70	130	0%	
Vinyl acetate	A	ppbv	11.28	11.28		9.9	0	0	0.266	1	0	114%	70	130	0%	
Vinyl chloride	A	ppbv	11.39	11.39		9.4	0	0	0.072	1	0	121%	70	130	0%	
Xylenes, Total	C	ppbv	31.42	31.42		29.2	0	0	0.782	3	0	108%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	13.1	13.1		12.5	0	0	0	0	0	105%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110811\11081111.D Vial: 3
Acq On : 8 Nov 2011 9:35 pm Operator: RACHEL HILL
Sample : ICV VOA1 110811 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 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	135	0.00
2	T	Propylene	1.430	1.560	-9.1	128	0.00
3	T	Dichlorodifluoromethane	3.279	3.846	-17.3	141	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.269	2.589	-14.1	139	0.00
5	T	Chloromethane	1.585	1.722	-8.6	123	0.00
6	T	Vinyl chloride	1.705	2.065	-21.1	138	0.00
7	T	1,3-Butadiene	1.383	1.600	-15.7	124	0.01
8	T	Bromomethane	1.256	1.473	-17.3	140	0.01
9	T	Chloroethane	0.804	0.937	-16.5	135	0.00
10	T	Trichlorofluoromethane	2.861	3.406	-19.0	144	0.00
11	T	Ethanol	0.364	0.444	-22.0	152#	0.00
12	T	Freon113	2.424	2.863	-18.1	135	0.00
13	T	1,1-Dichloroethene	2.022	2.355	-16.5	130	0.00
14	T	Acetone	1.997	2.343	-17.3	125	0.00
15	T	Carbon disulfide	3.485	4.046	-16.1	133	0.00
16	T	2-Propanol	1.890	2.198	-16.3	127	0.00
17	T	Methylene chloride	1.639	1.828	-11.5	123	0.00
18	T	tert-Butyl Methyl Ether	2.599	3.026	-16.4	126	0.00
19	T	trans-1,2-Dichloroethene	1.917	2.222	-15.9	129	0.00
20	T	n-Hexane	2.175	2.450	-12.6	124	0.00
21	T	1,1-Dichloroethane	2.222	2.583	-16.2	129	0.00
22	T	Vinyl acetate	3.200	3.646	-13.9	119	0.00
23	T	cis-1,2-Dichloroethene	1.183	1.324	-11.9	128	0.00
24	T	2-Butanone	2.137	2.482	-16.1	125	0.00
25	T	Ethyl acetate	2.822	3.207	-13.6	122	0.00
26	T	Tetrahydrofuran	1.365	1.546	-13.3	119	0.00
27	T	Chloroform	2.384	2.783	-16.7	132	0.00
28	T	1,1,1-Trichloroethane	2.215	2.623	-18.4	134	0.00
29	T	Cyclohexane	2.224	2.551	-14.7	122	0.00
30	T	Carbon tetrachloride	1.964	2.301	-17.2	136	0.00
31	T	Benzene	2.972	3.358	-13.0	123	0.00
32	T	1,2-Dichloroethane	1.345	1.537	-14.3	126	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	136	0.00
34	T	Heptane	0.869	0.947	-9.0	120	0.00
35	T	Trichloroethene	0.436	0.467	-7.1	128	0.00
36	T	1,2-Dichloropropane	0.366	0.391	-6.8	119	0.00
37	T	1,4-Dioxane	0.130	0.155	-19.2	146	0.00
38	T	Bromodichloromethane	0.635	0.700	-10.2	129	0.00
39	T	cis-1,3-Dichloropropene	0.525	0.570	-8.6	125	0.00
40	T	4-Methyl-2-pentanone	0.253	0.279	-10.3	123	0.00
41	T	Toluene	0.936	1.003	-7.2	122	0.00
42	T	trans-1,3-Dichloropropene	0.447	0.491	-9.8	127	0.00
43	T	1,1,2-Trichloroethane	0.321	0.339	-5.6	123	0.00
44	T	Tetrachloroethene	0.481	0.515	-7.1	126	0.00
45	T	2-Hexanone	0.530	0.588	-10.9	126	0.00
46	T	Chlorodibromomethane	0.480	0.509	-6.0	128	0.00
47	T	1,2-Dibromoethane	0.456	0.489	-7.2	127	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	136	0.00
49	T	Chlorobenzene	0.927	0.973	-5.0	123	0.00
50	T	Ethylbenzene	1.568	1.651	-5.3	122	0.00
51	T	m,p-Xylene	1.248	1.357	-8.7	122	0.00
52	T	o-Xylene	1.138	1.200	-5.4	124	0.00
53	T	Styrene	0.793	0.834	-5.2	126	0.00
54	T	Bromoform	0.587	0.633	-7.8	130	0.00
55	S	4-Bromofluorobenzene	0.555	0.581	-4.7	142	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\110811\11081111.D Vial: 3
Acq On : 8 Nov 2011 9:35 pm Operator: RACHEL HILL
Sample : ICV VOA1 110811 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 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)
56	T	1,1,2,2-Tetrachloroethane	0.899	1.001	-11.3	136	0.00
57	T	4-Ethyltoluene	1.356	1.404	-3.5	127	0.00
58	T	1,3,5-Trimethylbenzene	1.146	1.208	-5.4	132	0.00
59	T	1,2,4-Trimethylbenzene	1.076	1.167	-8.5	134	0.00
60	T	1,3-Dichlorobenzene	0.669	0.744	-11.2	135	0.00
61	T	1,4-Dichlorobenzene	0.625	0.696	-11.4	135	0.00
62	T	Benzyl chloride	0.792	0.956	-20.7	143	0.00
63	T	1,2-Dichlorobenzene	0.624	0.718	-15.1	142	0.00
64	T	1,2,4-Trichlorobenzene	0.117	0.132	-12.8	136	0.00
65	T	Hexachlorobutadiene	0.271	0.299	-10.3	126	0.00
66		Naphthalene	0.190	0.216	-13.7	136	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110811\11081111.D Vial: 3
Acq On : 8 Nov 2011 9:35 pm Operator: RACHEL HILL
Sample : ICV VOA1 110811 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 9 9:11 2011 Quant Results File: 110811V1.RES

Quant Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 2011
Response via : Initial Calibration
DataAcq Meth : 110811V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	462467	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1524150	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	949612	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.18	95	552037	13.10	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 104.80%				
Target Compounds							Qvalue
2) Propylene	5.52	41	588625	11.13	ppbv		98
3) Dichlorodifluoromethane	5.59	85	1309255	10.79	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	910041	10.84	ppbv	#	71
5) Chloromethane	6.00	50	605225	10.32	ppbv		99
6) Vinyl chloride	6.20	62	718185	11.39	ppbv		98
7) 1,3-Butadiene	6.27	39	580080	11.34	ppbv		93
8) Bromomethane	6.86	94	506692	10.91	ppbv		99
9) Chloroethane	7.00	64	319018	10.72	ppbv		97
10) Trichlorofluoromethane	7.33	101	1209764	11.43	ppbv	#	98
11) Ethanol	7.56	45	151177	11.22	ppbv		99
12) Freon113	8.00	101	1037956	11.57	ppbv		88
13) 1,1-Dichloroethene	8.09	61	862608	11.53	ppbv		90
14) Acetone	8.18	43	866710	11.73	ppbv	#	90
15) Carbon disulfide	8.47	76	1451921	11.26	ppbv	#	100
16) 2-Propanol	8.23	45	821413	11.75	ppbv		83
17) Methylene chloride	8.75	49	676192	11.15	ppbv	#	81
18) tert-Butyl Methyl Ether	8.95	73	1108401	11.53	ppbv	#	89
19) trans-1,2-Dichloroethene	9.04	61	805531	11.36	ppbv		86
20) n-Hexane	9.22	57	915648	11.38	ppbv		92
21) 1,1-Dichloroethane	9.60	63	927001	11.28	ppbv	#	97
22) Vinyl acetate	9.53	43	1335555	11.28	ppbv	#	96
23) cis-1,2-Dichloroethene	10.28	96	480197	10.97	ppbv	#	85
24) 2-Butanone	10.24	43	909150	11.50	ppbv	#	89
25) Ethyl acetate	10.20	43	1162902	11.14	ppbv	#	100
26) Tetrahydrofuran	10.58	42	571813	11.32	ppbv		88
27) Chloroform	10.61	83	1009160	11.44	ppbv		100
28) 1,1,1-Trichloroethane	10.85	97	931527	11.36	ppbv	#	95
29) Cyclohexane	10.86	56	925058	11.24	ppbv		87
30) Carbon tetrachloride	11.01	117	808657	11.13	ppbv		97
31) Benzene	11.30	78	1192615	10.85	ppbv		95
32) 1,2-Dichloroethane	11.37	62	551452	11.08	ppbv		98
34) Heptane	11.35	43	1143162	10.79	ppbv	#	89
35) Trichloroethene	12.03	130	546824	10.28	ppbv		93
36) 1,2-Dichloropropane	12.38	63	467535	10.48	ppbv		96
37) 1,4-Dioxane	12.46	88	181543	11.45	ppbv	#	85
38) Bromodichloromethane	12.67	83	818897	10.58	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	660721	10.31	ppbv		96
40) 4-Methyl-2-pentanone	13.33	58	340438	11.02	ppbv	#	90
41) Toluene	13.63	91	1198385	10.50	ppbv		97
42) trans-1,3-Dichloropropene	13.93	75	545131	9.99	ppbv		96
43) 1,1,2-Trichloroethane	14.20	97	404814	10.33	ppbv		96
44) Tetrachloroethene	14.33	166	603385	10.29	ppbv		99
45) 2-Hexanone	14.41	43	702588	10.87	ppbv		94
46) Chlorodibromomethane	14.75	129	608749	10.41	ppbv		99
47) 1,2-Dibromoethane	14.99	107	572964	10.30	ppbv		100
49) Chlorobenzene	15.58	112	731786	10.39	ppbv	#	88
50) Ethylbenzene	15.62	91	1229384	10.32	ppbv		91
51) m,p-Xylene	15.78	91	1978732	20.88	ppbv		91
52) o-Xylene	16.37	91	911576	10.54	ppbv	#	89

(#) = qualifier out of range (m) = manual integration
11081111.D 110811V1.M Tue Nov 15 15:52:21 2011 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110811\11081111.D Vial: 3
Acq On : 8 Nov 2011 9:35 pm Operator: RACHEL HILL
Sample : ICV VOA1 110811 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 9 9:11 2011 Quant Results File: 110811V1.RES

Quant Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 2011
Response via : Initial Calibration
DataAcq Meth : 110811V1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.40	104	621248	10.31	ppbv		98
54)	Bromoform	16.78	173	461365	10.35	ppbv	#	97
56)	1,1,2,2-Tetrachloroethane	17.36	83	760157	11.13	ppbv	#	99
57)	4-Ethyltoluene	17.60	105	1045614	10.15	ppbv		95
58)	1,3,5-Trimethylbenzene	17.68	105	889922	10.22	ppbv		95
59)	1,2,4-Trimethylbenzene	18.27	105	869092	10.63	ppbv		97
60)	1,3-Dichlorobenzene	18.82	146	548515	10.79	ppbv		98
61)	1,4-Dichlorobenzene	18.96	146	507627	10.69	ppbv		98
62)	Benzyl chloride	19.17	91	704778	11.72	ppbv		96
63)	1,2-Dichlorobenzene	19.61	146	529071	11.16	ppbv		97
64)	1,2,4-Trichlorobenzene	22.77	180	91002	10.25	ppbv		98
65)	Hexachlorobutadiene	22.96	225	213633	10.38	ppbv		99
66)	Naphthalene	23.46	128	151011	10.46	ppbv		100

(#) = qualifier out of range (m) = manual integration
11081111.D 110811V1.M Tue Nov 15 15:52:21 2011 Page 2

Quantitation Report

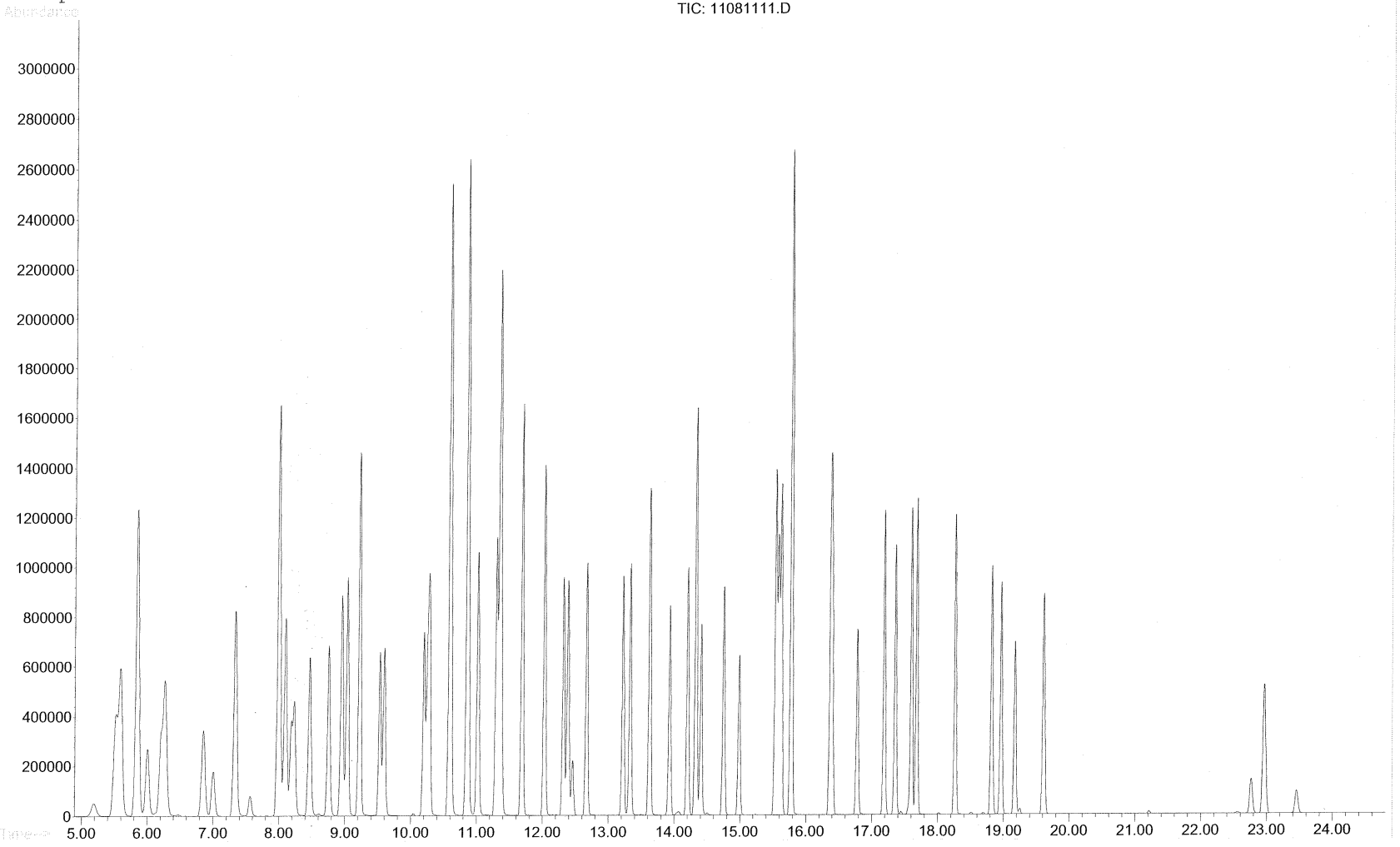
Data File : C:\HPCHEM\1\DATA\110811\11081111.D
Acq On : 8 Nov 2011 9:35 pm
Sample : ICV VOA1 110811
Misc : ICV EPA TO15
MS Integration Params: CLME.P
Quant Time: Nov 9 9:11 2011

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

Quant Results File: 110811V1.RES

Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 2011
Response via : Initial Calibration

TIC: 11081111.D



RTI Laboratories

Run ID: VOA1_111114A **Run No.:** 44219

Analytical Run Date: 11/14/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 44219 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 111411	BFB_TUNE	TUNE	R44219	11/14/2011 9:13:00 AM	Charles O`Bryan		
1ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 12:26:00 PM	Charles O`Bryan		
10ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 2:38:00 PM	Charles O`Bryan		
12ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 3:19:00 PM	Charles O`Bryan		
15ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 4:01:00 PM	Charles O`Bryan		
20ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 4:43:00 PM	Charles O`Bryan		
30ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 5:27:00 PM	Charles O`Bryan		
50ppbv ICAL	EPA_TO15	ICAL	R44219	11/14/2011 6:11:00 PM	Charles O`Bryan		
BFB2 VOA2 111411	BFB_TUNE	TUNE	R44219	11/14/2011 6:52:00 PM	Charles O`Bryan		
ICV VOA1 111411	EPA_TO15	ICV	R44219	11/14/2011 7:33:00 PM	Charles O`Bryan		
RLVS1 VOA1 11141	EPA_TO15	RLVS	R44219	11/14/2011 8:16:00 PM	Charles O`Bryan		
BLK VOA1 111411	EPA_TO15	MBLK	R44219	11/14/2011 9:04:00 PM	Charles O`Bryan		
1111023-004A	EPA_TO15	SAMP	R44219	11/14/2011 10:26:00 PM	Charles O`Bryan		
1111023-006A	EPA_TO15	SAMP	R44219	11/14/2011 11:14:00 PM	Charles O`Bryan		
1111023-007A	EPA_TO15	SAMP	R44219	11/15/2011 12:02:00 AM	Charles O`Bryan		
1111023-008A	EPA_TO15	SAMP	R44219	11/15/2011 12:51:00 AM	Charles O`Bryan		
1111023-009A	EPA_TO15	SAMP	R44219	11/15/2011 1:35:00 AM	Charles O`Bryan		
1111437-044A	EPA_TO15	SAMP	R44219	11/15/2011 2:58:00 AM	Charles O`Bryan		
1111437-029A	EPA_TO15	SAMP	R44219	11/15/2011 3:40:00 AM	Charles O`Bryan		
1111437-030A	EPA_TO15	SAMP	R44219	11/15/2011 4:21:00 AM	Charles O`Bryan		
1111437-033A	EPA_TO15	SAMP	R44219	11/15/2011 5:45:00 AM	Charles O`Bryan		Over diluted sample. Re-analyzed at lower dilution later in run. Imported here to show that sample and duplicate were analyzed.
1111437-033Adup	EPA_TO15	SAMP	R44219	11/15/2011 6:26:00 AM	Charles O`Bryan		
1111437-031A	EPA_TO15	SAMP	R44219	11/15/2011 9:12:00 AM	Charles O`Bryan		
1111437-033A	EPA_TO15	SAMP	R44219	11/15/2011 9:54:00 AM	Charles O`Bryan		
1111437-034A	EPA_TO15	SAMP	R44219	11/15/2011 11:23:00 AM	Charles O`Bryan		
1111023-019A	EPA_TO15	SAMP	R44219	11/15/2011 12:52:00 PM	Charles O`Bryan		
1111437-035A	EPA_TO15	SAMP	R44219	11/15/2011 1:34:00 PM	Charles O`Bryan		
1111437-036A	EPA_TO15	SAMP	R44219	11/15/2011 2:16:00 PM	Charles O`Bryan		
1111437-022A	EPA_TO15	SAMP	R44219	11/15/2011 3:46:00 PM	Charles O`Bryan		
1111437-023A	EPA_TO15	SAMP	R44219	11/15/2011 4:31:00 PM	Charles O`Bryan		
RLVS2 VOA1 11141	EPA_TO15	RLVS	R44219	11/15/2011 6:03:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
867653	ICV VOA1 111411	EPA_TO15	ICV	\1\DATA\111411	11/14/2011 7:33:	1	R44219		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	10.54	10.54		9.6	0	0	0.107	1	0	110%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.12	10.12		10	0	0	0.211	1	0	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.77	10.77		9.8	0	0	0.108	1	0	110%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.8	9.8		9.8	0	0	0.2	1	0	100%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.27	10.27		9.7	0	0	0.111	1	0	106%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.74	10.74		9.9	0	0	0.097	1	0	108%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.21	9.21		9.1	0	0	0.271	1	0	101%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.63	9.63		9.8	0	0	0.245	1	0	98%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.81	9.81		9.6	0	0	0.186	1	0	102%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.08	10.08		9.7	0	0	0.208	1	0	104%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.05	10.05		9.7	0	0	0.196	1	0	104%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.85	9.85		9.8	0	0	0.224	1	0	101%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.43	9.43		9.7	0	0	0.24	1	0	97%	70	130	0%	
1,3-Butadiene	A	ppbv	11.11	11.11		9.8	0	0	0.152	1	0	113%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.9	9.9		9.7	0	0	0.202	1	0	102%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.85	9.85		9.6	0	0	0.194	1	0	103%	70	130	0%	
1,4-Dioxane	A	ppbv	10.36	10.36		9.6	0	0	0.128	1	0	108%	70	130	0%	
2-Butanone	A	ppbv	10.48	10.48		9.9	0	0	0.287	1	0	106%	70	130	0%	
2-Hexanone	A	ppbv	10.44	10.44		9.8	0	0	0.135	1	0	107%	70	130	0%	
2-Propanol	A	ppbv	10.99	10.99		10.1	0	0	0.329	1	0	109%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.45	10.45		10	0	0	0.157	1	0	105%	70	130	0%	
Acetone	A	ppbv	10.49	10.49		10	0	0	0.43	1	0	105%	70	130	0%	
Benzene	A	ppbv	10.02	10.02		9.6	0	0	0.126	1	0	104%	70	130	0%	
Benzyl chloride	A	ppbv	10.62	10.62		9.7	0	0	0.155	1	0	109%	70	130	0%	
Bromodichloromethane	A	ppbv	9.8	9.8		9.6	0	0	0.156	1	0	102%	70	130	0%	
Bromoform	A	ppbv	10.01	10.01		9.6	0	0	0.197	1	0	104%	70	130	0%	
Bromomethane	A	ppbv	10.03	10.03		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.59	10.59		9.7	0	0	0.093	1	0	109%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.17	10.17		9.5	0	0	0.114	1	0	107%	70	130	0%	
Chlorobenzene	A	ppbv	10.03	10.03		9.9	0	0	0.275	1	0	101%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.96	9.96		9.2	0	0	0.165	1	0	108%	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	10.63	10.63		9.4	0	0	0.126	1	0	113%	70	130	0%	
Chloromethane	A	ppbv	9.95	9.95		9.8	0	0	0.104	1	0	102%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
867653	ICV VOA1 111411	EPA_TO15	ICV	\1\DATA\11141111/14/2011 7:33:		1	R44219		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	10.27	10.27		9.8	0	0	0.107	1	0	105%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.62	9.62		9.5	0	0	0.166	1	0	101%	70	130	0%	
Cyclohexane	A	ppbv	10.83	10.83		9.8	0	0	0.684	2	0	111%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.9	9.9		9.2	0	0	0.086	1	0	108%	70	130	0%	
Ethanol	A	ppbv	9.81	9.81		9.2	0	0	1.962	5	0	107%	70	130	0%	
Ethyl acetate	A	ppbv	10.64	10.64		9.8	0	0	0.157	1	0	109%	70	130	0%	
Ethylbenzene	A	ppbv	9.99	9.99		9.8	0	0	0.737	2	0	102%	70	130	0%	
Heptane	A	ppbv	10.54	10.54		9.9	0	0	0.249	1	0	106%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.13	10.13		9.4	0	0	0.374	2	0	108%	70	130	0%	
m,p-Xylene	A	ppbv	20.46	20.46		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.6	10.6		10	0	0	2.077	5	0	106%	70	130	0%	
n-Hexane	A	ppbv	10.77	10.77		10.1	0	0	0.692	2	0	107%	70	130	0%	
Naphthalene	A	ppbv	9.55	9.55		9.2	0	0	0.247	1	0	104%	70	130	0%	
o-Xylene	A	ppbv	10.11	10.11		10	0	0	0.258	1	0	101%	70	130	0%	
Propylene	A	ppbv	10.66	10.66		10.2	0	0	0.075	1	0	105%	70	130	0%	
Styrene	A	ppbv	9.94	9.94		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.18	10.18		9.9	0	0	0.228	1	0	103%	70	130	0%	
Tetrachloroethene	A	ppbv	10.12	10.12		9.6	0	0	0.148	1	0	105%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.66	10.66		10	0	0	0.201	1	0	107%	70	130	0%	
Toluene	A	ppbv	9.97	9.97		9.8	0	0	0.158	1	0	102%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.45	10.45		9.8	0	0	0.117	1	0	107%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.3	9.3		9.1	0	0	0.171	1	0	102%	70	130	0%	
Trichloroethene	A	ppbv	9.87	9.87		9.6	0	0	0.119	1	0	103%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.42	10.42		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	10.57	10.57		9.9	0	0	0.266	1	0	107%	70	130	0%	
Vinyl chloride	A	ppbv	11.29	11.29		9.4	0	0	0.072	1	0	120%	70	130	0%	
Xylenes, Total	C	ppbv	30.57	30.57		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	12.93	12.93		12.5	0	0	0	0	0	103%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111411\11141114.D Vial: 3
Acq On : 14 Nov 2011 7:33 pm Operator: RACHEL HILL
Sample : ICV VOA1 111411 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 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	117	0.00
2	T	Propylene	1.331	1.392	-4.6	110	0.00
3	T	Dichlorodifluoromethane	3.270	3.520	-7.6	113	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.263	2.424	-7.1	113	0.00
5	T	Chloromethane	1.358	1.422	-4.7	104	0.00
6	T	Vinyl chloride	1.527	1.834	-20.1	114	0.00
7	T	1,3-Butadiene	1.250	1.418	-13.4	111	0.00
8	T	Bromomethane	1.280	1.380	-7.8	113	0.00
9	T	Chloroethane	0.801	0.863	-7.7	112	0.00
10	T	Trichlorofluoromethane	2.951	3.203	-8.5	113	0.00
11	T	Ethanol	0.333	0.355	-6.6	106	0.00
12	T	Freon113	2.389	2.626	-9.9	110	0.00
13	T	1,1-Dichloroethene	2.004	2.174	-8.5	109	0.00
14	T	Acetone	1.748	1.833	-4.9	99	0.00
15	T	Carbon disulfide	3.496	3.816	-9.2	112	0.00
16	T	2-Propanol	1.650	1.795	-8.8	105	0.00
17	T	Methylene chloride	1.508	1.598	-6.0	104	0.00
18	T	tert-Butyl Methyl Ether	2.377	2.445	-2.9	100	0.00
19	T	trans-1,2-Dichloroethene	1.835	1.957	-6.6	105	0.00
20	T	n-Hexane	2.034	2.169	-6.6	106	0.00
21	T	1,1-Dichloroethane	2.165	2.294	-6.0	105	0.00
22	T	Vinyl acetate	2.638	2.817	-6.8	99	0.00
23	T	cis-1,2-Dichloroethene	1.145	1.200	-4.8	106	0.00
24	T	2-Butanone	1.787	1.892	-5.9	107	0.00
25	T	Ethyl acetate	2.316	2.514	-8.5	103	0.00
26	T	Tetrahydrofuran	1.161	1.238	-6.6	101	0.00
27	T	Chloroform	2.234	2.422	-8.4	107	0.00
28	T	1,1,1-Trichloroethane	2.116	2.323	-9.8	107	0.00
29	T	Cyclohexane	2.029	2.242	-10.5	105	0.00
30	T	Carbon tetrachloride	1.957	2.094	-7.0	107	0.00
31	T	Benzene	2.753	2.872	-4.3	102	0.00
32	T	1,2-Dichloroethane	1.204	1.248	-3.7	101	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	121	0.00
34	T	Heptane	0.773	0.823	-6.5	105	0.00
35	T	Trichloroethene	0.423	0.435	-2.8	107	0.00
36	T	1,2-Dichloropropane	0.328	0.330	-0.6	102	0.00
37	T	1,4-Dioxane	0.127	0.137	-7.9	107	0.00
38	T	Bromodichloromethane	0.623	0.637	-2.2	105	0.00
39	T	cis-1,3-Dichloropropene	0.490	0.496	-1.2	104	0.00
40	T	4-Methyl-2-pentanone	0.228	0.238	-4.4	104	0.00
41	T	Toluene	0.874	0.889	-1.7	105	0.00
42	T	trans-1,3-Dichloropropene	0.424	0.434	-2.4	105	0.00
43	T	1,1,2-Trichloroethane	0.305	0.305	0.0	106	0.00
44	T	Tetrachloroethene	0.468	0.493	-5.3	110	0.00
45	T	2-Hexanone	0.482	0.513	-6.4	105	0.00
46	T	Chlorodibromomethane	0.468	0.475	-1.5	107	0.00
47	T	1,2-Dibromoethane	0.437	0.446	-2.1	107	0.00
48	I	Chlorobenzene-d5	1.000	1.000	0.0	121	0.00
49	T	Chlorobenzene	0.842	0.853	-1.3	107	0.00
50	T	Ethylbenzene	1.408	1.435	-1.9	106	0.00
51	T	m,p-Xylene	1.103	1.175	-6.5	108	0.00
52	T	o-Xylene	1.040	1.051	-1.1	107	0.00
53	T	Styrene	0.729	0.739	-1.4	109	0.00
54	T	Bromoform	0.550	0.573	-4.2	110	0.00
55	S	4-Bromofluorobenzene	0.579	0.599	-3.5	122	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111411\11141114.D Vial: 3
Acq On : 14 Nov 2011 7:33 pm Operator: RACHEL HILL
Sample : ICV VOA1 111411 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 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)
56	T	1,1,2,2-Tetrachloroethane	0.799	0.809	-1.3	107	0.00
57	T	4-Ethyltoluene	1.239	1.227	1.0	108	0.00
58	T	1,3,5-Trimethylbenzene	1.028	0.999	2.8	107	0.00
59	T	1,2,4-Trimethylbenzene	0.961	0.945	1.7	108	0.00
60	T	1,3-Dichlorobenzene	0.616	0.629	-2.1	109	0.00
61	T	1,4-Dichlorobenzene	0.577	0.592	-2.6	108	0.00
62	T	Benzyl chloride	0.740	0.810	-9.5	108	0.00
63	T	1,2-Dichlorobenzene	0.557	0.579	-3.9	109	0.00
64	T	1,2,4-Trichlorobenzene	0.122	0.124	-1.6	104	0.00
65	T	Hexachlorobutadiene	0.274	0.295	-7.7	109	0.00
66		Naphthalene	0.207	0.215	-3.9	106	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\111411\11141114.D Vial: 3
Acq On : 14 Nov 2011 7:33 pm Operator: RACHEL HILL
Sample : ICV VOA1 111411 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 15 9:20 2011 Quant Results File: 111411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 2011
Response via : Initial Calibration
DataAcq Meth : 110811V1

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane	10.59	130	588321	12.50	ppbv		0.00
33) 1,4-Difluorobenzene	11.69	114	1940680	12.50	ppbv		0.00
48) Chlorobenzene-d5	15.54	117	1288203	12.50	ppbv		0.00
System Monitoring Compounds							
55) 4-Bromofluorobenzene	17.19	95	771469	12.93	ppbv		0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 103.44%				
Target Compounds							Qvalue
2) Propylene	5.51	41	668224	10.66	ppbv		99
3) Dichlorodifluoromethane	5.58	85	1524295	9.90	ppbv		99
4) 1,2-Dichloro-1,2,2,2-tetra	5.83	135	1083734	10.18	ppbv	#	74
5) Chloromethane	5.99	50	635615	9.95	ppbv		99
6) Vinyl chloride	6.20	62	811439	11.29	ppbv		99
7) 1,3-Butadiene	6.26	39	653848	11.11	ppbv		93
8) Bromomethane	6.85	94	604029	10.03	ppbv		99
9) Chloroethane	7.00	64	373560	9.90	ppbv		98
10) Trichlorofluoromethane	7.33	101	1447001	10.42	ppbv		98
11) Ethanol	7.56	45	153734	9.81	ppbv		99
12) Freon113	7.99	101	1211118	10.77	ppbv		90
13) 1,1-Dichloroethene	8.09	61	1012947	10.74	ppbv		91
14) Acetone	8.18	43	862834	10.49	ppbv		95
15) Carbon disulfide	8.46	76	1742236	10.59	ppbv	#	100
16) 2-Propanol	8.22	45	853469	10.99	ppbv	#	79
17) Methylene chloride	8.75	49	752205	10.60	ppbv	#	83
18) tert-Butyl Methyl Ether	8.95	73	1139283	10.18	ppbv	#	90
19) trans-1,2-Dichloroethene	9.03	61	902549	10.45	ppbv		87
20) n-Hexane	9.22	57	1030951	10.77	ppbv		93
21) 1,1-Dichloroethane	9.60	63	1047127	10.27	ppbv		98
22) Vinyl acetate	9.53	43	1312365	10.57	ppbv	#	96
23) cis-1,2-Dichloroethene	10.28	96	553489	10.27	ppbv		88
24) 2-Butanone	10.24	43	881486	10.48	ppbv	#	90
25) Ethyl acetate	10.20	43	1159526	10.64	ppbv	#	100
26) Tetrahydrofuran	10.58	42	582550	10.66	ppbv		90
27) Chloroform	10.60	83	1117156	10.63	ppbv		99
28) 1,1,1-Trichloroethane	10.85	97	1049773	10.54	ppbv		96
29) Cyclohexane	10.86	56	1034235	10.83	ppbv		89
30) Carbon tetrachloride	11.01	117	936441	10.17	ppbv		98
31) Benzene	11.30	78	1297734	10.02	ppbv		96
32) 1,2-Dichloroethane	11.37	62	569572	10.05	ppbv		98
34) Heptane	11.35	43	1265045	10.54	ppbv	#	90
35) Trichloroethene	12.03	130	648559	9.87	ppbv		93
36) 1,2-Dichloropropane	12.38	63	501532	9.85	ppbv		96
37) 1,4-Dioxane	12.46	88	204193	10.36	ppbv	#	87
38) Bromodichloromethane	12.67	83	948847	9.80	ppbv		99
39) cis-1,3-Dichloropropene	13.22	75	730896	9.62	ppbv		97
40) 4-Methyl-2-pentanone	13.33	58	369906	10.45	ppbv	#	92
41) Toluene	13.63	91	1352712	9.97	ppbv		97
42) trans-1,3-Dichloropropene	13.93	75	612633	9.30	ppbv		96
43) 1,1,2-Trichloroethane	14.20	97	464446	9.80	ppbv		97
44) Tetrachloroethene	14.33	166	734992	10.12	ppbv		98
45) 2-Hexanone	14.41	43	780445	10.44	ppbv		95
46) Chlorodibromomethane	14.75	129	722886	9.96	ppbv		98
47) 1,2-Dibromoethane	14.99	107	665480	9.81	ppbv		99
49) Chlorobenzene	15.58	112	870400	10.03	ppbv	#	89
50) Ethylbenzene	15.63	91	1449221	9.99	ppbv		92
51) m,p-Xylene	15.78	91	2324755	20.46	ppbv		92
52) o-Xylene	16.37	91	1083585	10.11	ppbv	#	90

(#) = qualifier out of range (m) = manual integration
11141114.D 111411V1.M Thu Nov 17 13:24:54 2011 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\111411\11141114.D Vial: 3
Acq On : 14 Nov 2011 7:33 pm Operator: RACHEL HILL
Sample : ICV VOA1 111411 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 15 9:20 2011 Quant Results File: 111411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 2011
Response via : Initial Calibration
DataAcq Meth : 110811V1

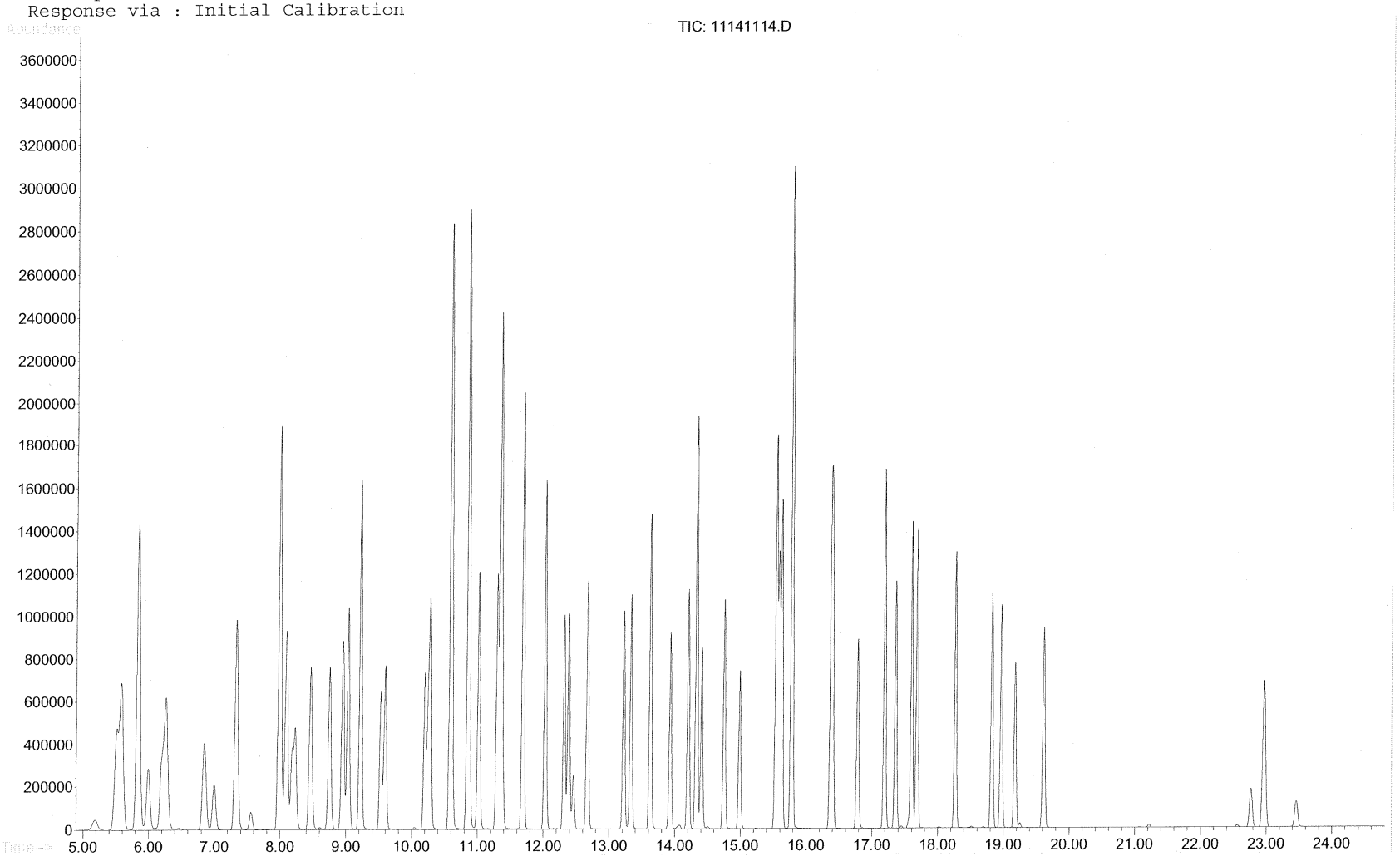
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	Styrene	16.40	104	746768	9.94	ppbv		98
54)	Bromoform	16.78	173	567338	10.01	ppbv	#	98
56)	1,1,2,2-Tetrachloroethane	17.36	83	833892	10.12	ppbv	#	98
57)	4-Ethyltoluene	17.60	105	1239067	9.71	ppbv		96
58)	1,3,5-Trimethylbenzene	17.68	105	998800	9.43	ppbv		97
59)	1,2,4-Trimethylbenzene	18.27	105	953923	9.63	ppbv		97
60)	1,3-Dichlorobenzene	18.82	146	628837	9.90	ppbv		98
61)	1,4-Dichlorobenzene	18.97	146	585946	9.85	ppbv		98
62)	Benzyl chloride	19.18	91	809413	10.62	ppbv		97
63)	1,2-Dichlorobenzene	19.61	146	579114	10.08	ppbv		98
64)	1,2,4-Trichlorobenzene	22.77	180	115856	9.21	ppbv		97
65)	Hexachlorobutadiene	22.97	225	286088	10.13	ppbv		99
66)	Naphthalene	23.45	128	203552	9.55	ppbv		99

(#) = qualifier out of range (m) = manual integration
11141114.D 111411V1.M Thu Nov 17 13:24:54 2011 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\111411\11141114.D Vial: 3
Acq On : 14 Nov 2011 7:33 pm Operator: RACHEL HILL
Sample : ICV VOA1 111411 Inst : VOA 1
Misc : ICV EPA TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Nov 15 9:20 2011 Quant Results File: 111411V1.RES

Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 2011
Response via : Initial Calibration

Calibration Files
2 =11011103.D 4 =11011104.D 5 =11011105.D
6 =11011106.D 7 =11011107.D 8 =11011108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.478	1.436	1.379	1.311	1.204	1.178	1.318	8.88
3)	T	Dichlorodifluoromet	3.646	3.630	3.504	3.362	3.155	3.141	3.397	6.09
4)	T	1,2-Dichloro-1,2,2,	2.007	2.355	2.314	2.271	2.181	2.228	2.225	5.08
5)	T	Chloromethane	1.632	1.631	1.561	1.431	1.306	1.193	1.416	14.20
6)	T	Vinyl chloride	1.606	1.932	1.723	1.464	1.194	1.066	1.431	24.21
7)	T	1,3-Butadiene	1.544	1.588	1.524	1.419	1.096	0.891	1.274	24.97
8)	T	Bromomethane	1.189	1.315	1.252	1.212	1.136	1.124	1.211	5.64
9)	T	Chloroethane	0.777	0.828	0.788	0.752	0.695	0.675	0.750	7.13
10)	T	Trichlorofluorometh	2.977	3.267	3.126	3.014	2.855	2.784	2.980	5.78
11)	T	Ethanol		0.387	0.365	0.355	0.336	0.316	0.350	7.09
12)	T	Freon113	2.194	2.629	2.493	2.438	2.366	2.218	2.337	8.85
13)	T	1,1-Dichloroethene	2.088	2.194	2.060	1.948	1.842	1.777	1.958	8.25
14)	T	Acetone	2.829	2.152	1.955	1.858	1.765	1.628	1.978	21.07
15)	T	Carbon disulfide	3.364	3.561	3.376	3.196	2.980	2.896	3.208	7.44
16)	T	2-Propanol	2.200	1.976	1.853	1.783	1.692	1.606	1.827	11.25
17)	T	Methylene chloride	1.918	1.716	1.603	1.502	1.408	1.339	1.548	13.77
18)	T	tert-Butyl Methyl E	3.048	2.811	2.541	2.435	2.428	2.321	2.575	10.08
19)	T	trans-1,2-Dichloroe	1.996	2.112	1.982	1.899	1.811	1.753	1.898	7.41
20)	T	n-Hexane	2.198	2.323	2.187	2.094	2.019	1.915	2.082	8.24
21)	T	1,1-Dichloroethane	2.244	2.367	2.215	2.106	2.049	1.985	2.142	6.43
22)	T	Vinyl acetate	1.933	3.505	3.167	3.017	2.898	2.670	2.841	17.34
23)	T	cis-1,2-Dichloroeth	1.128	1.255	1.177	1.139	1.113	1.129	1.160	4.21
24)	T	2-Butanone	2.513	2.230	2.058	1.917	1.870	1.773	2.010	14.06
25)	T	Ethyl acetate	3.054	2.872	2.774	2.513	2.426	2.364	2.611	11.17
26)	T	Tetrahydrofuran	1.769	1.437	1.323	1.260	1.186	1.073	1.292	19.87
27)	T	Chloroform	2.460	2.782	2.616	2.512	2.360	2.170	2.411	11.27
28)	T	1,1,1-Trichloroetha	2.090	2.685	2.551	2.464	2.312	2.083	2.291	13.00
29)	T	Cyclohexane	2.202	2.505	2.352	2.231	2.041	1.802	2.102	15.27
30)	T	Carbon tetrachlorid	1.901	2.301	2.183	2.121	2.085	2.022	2.076	6.86
31)	T	Benzene	3.180	3.124	2.868	2.737	2.683	2.605	2.847	7.85
32)	T	1,2-Dichloroethane	1.563	1.601	1.478	1.414	1.366	1.238	1.403	11.63
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.842	1.019	0.983	0.961	0.918	0.837	0.889	13.45
35)	T	Trichloroethene	0.385	0.478	0.469	0.479	0.492	0.501	0.463	8.66
36)	T	1,2-Dichloropropane	0.349	0.395	0.370	0.370	0.378	0.379	0.372	3.90
37)	T	1,4-Dioxane	0.164	0.132	0.129	0.123	0.127	0.122	0.132	11.25
38)	T	Bromodichloromethan	0.571	0.717	0.695	0.696	0.717	0.720	0.681	7.99
39)	T	cis-1,3-Dichloropro	0.479	0.590	0.564	0.563	0.576	0.586	0.562	6.78
40)	T	4-Methyl-2-pentanon	0.254	0.254	0.243	0.241	0.244	0.246	0.247	2.09
41)	T	Toluene	0.934	0.997	0.942	0.942	0.962	0.972	0.954	2.55
42)	T	trans-1,3-Dichlorop	0.383	0.506	0.485	0.485	0.498	0.508	0.482	9.26
43)	T	1,1,2-Trichloroetha	0.306	0.339	0.322	0.326	0.336	0.348	0.332	4.34
44)	T	Tetrachloroethene	0.454	0.523	0.514	0.515	0.534	0.524	0.501	7.35
45)	T	2-Hexanone	0.658	0.550	0.525	0.512	0.518	0.501	0.534	11.08
46)	T	Chlorodibromomethan	0.413	0.523	0.508	0.519	0.548	0.566	0.513	9.48
47)	T	1,2-Dibromoethane	0.434	0.496	0.481	0.483	0.503	0.520	0.487	5.52
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.946	0.960	0.915	0.918	0.944	0.973	0.942	2.21
50)	T	Ethylbenzene	1.663	1.629	1.551	1.550	1.575	1.599	1.571	4.74
51)	T	m,p-Xylene	1.350	1.380	1.330	1.330	1.320	1.206	1.263	12.57
52)	T	o-Xylene	1.271	1.182	1.139	1.129	1.166	1.186	1.160	5.80
53)	T	Styrene	0.818	0.816	0.783	0.785	0.811	0.835	0.802	2.95
54)	T	Bromoform	0.540	0.615	0.607	0.610	0.646	0.660	0.609	6.47
55)	S	4-Bromofluorobenzen	0.629	0.604	0.601	0.597	0.597	0.577	0.596	3.42
56)	T	1,1,2,2-Tetrachloro	1.083	0.884	0.843	0.822	0.839	0.821	0.864	12.03
57)	T	4-Ethyltoluene	1.922	1.415	1.344	1.329	1.365	1.353	1.427	15.67

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 2011
Response via : Initial Calibration

Calibration Files
2 =11011103.D 4 =11011104.D 5 =11011105.D
6 =11011106.D 7 =11011107.D 8 =11011108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.733	1.198	1.145	1.130	1.177	1.162	1.230	18.32
59)	T	1,2,4-Trimethylbenz	1.667	1.107	1.047	1.035	1.078	1.056	1.144	20.29
60)	T	1,3-Dichlorobenzene	0.776	0.620	0.602	0.586	0.607	0.596	0.627	10.56
61)	T	1,4-Dichlorobenzene	0.773	0.561	0.545	0.535	0.555	0.553	0.585	14.33
62)	T	Benzyl chloride	0.450	0.746	0.739	0.715	0.755	0.731	0.697	15.75
63)	T	1,2-Dichlorobenzene	0.873	0.548	0.533	0.512	0.533	0.509	0.576	22.86
64)	T	1,2,4-Trichlorobenz		0.071	0.075	0.070	0.083	0.090	0.080	11.93
65)	T	Hexachlorobutadiene		0.188	0.196	0.181	0.206	0.213	0.199	6.54
66)		Naphthalene		0.107	0.119	0.110	0.128	0.138	0.124	11.35

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\110111V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 02 07:37:51 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	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.52	0.522	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5	T	Chloromethane	50	6.01	0.567	A	3	A	B
6	T	Vinyl chloride	62	6.21	0.587	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.85	0.647	A	3	A	B
9	T	Chloroethane	64	7.01	0.662	A	3	A	B
10	T	Trichlorofluoromethane	101	7.34	0.693	A	3	A	B
11	T	Ethanol	45	7.56	0.714	A	2	A	B
12	T	Freon113	101	8.00	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.10	0.764	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.47	0.800	A	3	A	B
16	T	2-Propanol	45	8.23	0.777	A	2	A	B
17	T	Methylene chloride	49	8.76	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.04	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.60	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	0.971	A	3	A	B
24	T	2-Butanone	43	10.25	0.967	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.59	1.000	A	2	A	B
27	T	Chloroform	83	10.60	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	11.02	1.040	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.971	A	3	A	B
35	T	Trichloroethene	130	12.03	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.46	1.066	A	2	A	B
38	T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.22	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.191	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	1.226	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	16.40	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	17.68	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.26	1.175	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	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	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.510	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
--------------------------------------------------------------------------
          110111V1.M     Thu Dec 01 14:43:40 2011
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Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 2011
Response via : Initial Calibration

Calibration Files
2 =11031105.D 4 =11031106.D 5 =11031107.D
6 =11031108.D 7 =11031109.D 8 =11031110.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.557	1.519	1.491	1.311	1.287	1.120	1.346	13.43
3)	T	Dichlorodifluoromet	3.426	3.685	3.702	3.266	3.258	2.900	3.327	9.04
4)	T	1,2-Dichloro-1,2,2,	1.983	2.449	2.481	2.201	2.262	2.084	2.223	8.44
5)	T	Chloromethane	1.679	1.788	1.748	1.499	1.441	1.203	1.499	17.28
6)	T	Vinyl chloride	1.674	2.047	1.900	1.587	1.390	1.142	1.542	24.06
7)	T	1,3-Butadiene	1.535	1.618	1.595	1.387	1.263	0.940	1.315	23.36
8)	T	Bromomethane	1.198	1.382	1.391	1.193	1.195	1.070	1.224	9.85
9)	T	Chloroethane	0.784	0.906	0.901	0.748	0.743	0.650	0.772	13.10
10)	T	Trichlorofluorometh	2.781	3.336	3.388	2.761	2.857	2.602	2.916	10.81
11)	T	Ethanol		0.481	0.467	0.333	0.363	0.300	0.375	21.40
12)	T	Freon113	2.180	2.891	2.929	2.217	2.356	2.134	2.378	16.13
13)	T	1,1-Dichloroethene	2.038	2.430	2.370	1.830	1.869	1.653	1.980	15.94
14)	T	Acetone	2.677	2.678	2.520	1.679	1.836	1.519	2.057	26.52
15)	T	Carbon disulfide	3.351	3.954	3.909	3.151	3.216	2.795	3.322	13.79
16)	T	2-Propanol	2.130	2.372	2.271	1.723	1.823	1.515	1.908	18.40
17)	T	Methylene chloride	1.916	1.953	1.898	1.419	1.424	1.252	1.588	20.20
18)	T	tert-Butyl Methyl E	3.025	3.558	3.359	2.166	2.410	2.136	2.699	22.33
19)	T	trans-1,2-Dichloroe	1.934	2.360	2.325	1.751	1.776	1.620	1.914	16.26
20)	T	n-Hexane	2.148	2.653	2.615	1.951	1.998	1.813	2.134	17.08
21)	T	1,1-Dichloroethane	2.181	2.818	2.733	2.030	2.077	1.882	2.236	17.11
22)	T	Vinyl acetate	2.409	4.423	4.141	2.691	2.884	2.497	3.075	27.44
23)	T	cis-1,2-Dichloroeth	1.104	1.420	1.416	1.076	1.096	1.034	1.178	14.08
24)	T	2-Butanone	2.521	2.969	2.583	1.746	1.924	1.713	2.159	24.22
25)	T	Ethyl acetate	3.134	3.733	3.447	2.335	2.612	2.184	2.810	22.32
26)	T	Tetrahydrofuran	1.666	1.826	1.712	1.189	1.272	1.052	1.384	24.89
27)	T	Chloroform	2.340	3.061	3.025	2.334	2.391	2.093	2.451	17.86
28)	T	1,1,1-Trichloroetha	2.017	2.907	2.939	2.256	2.344	2.036	2.329	18.99
29)	T	Cyclohexane	2.172	2.837	2.775	2.113	2.112	1.774	2.189	21.82
30)	T	Carbon tetrachlorid	1.808	2.510	2.495	1.918	2.008	1.886	2.065	14.80
31)	T	Benzene	3.121	3.921	3.730	2.577	2.720	2.446	3.008	19.99
32)	T	1,2-Dichloroethane	1.417	1.874	1.797	1.243	1.340	1.174	1.423	21.11
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.789	1.150	1.134	0.870	0.964	0.802	0.911	19.82
35)	T	Trichloroethene	0.363	0.533	0.543	0.427	0.488	0.456	0.462	13.98
36)	T	1,2-Dichloropropane	0.335	0.499	0.479	0.334	0.391	0.347	0.390	17.98
37)	T	1,4-Dioxane	0.145	0.167	0.165	0.120	0.141	0.119	0.139	15.29
38)	T	Bromodichloromethan	0.534	0.843	0.828	0.625	0.730	0.665	0.695	16.12
39)	T	cis-1,3-Dichloropro	0.446	0.701	0.680	0.496	0.579	0.523	0.565	16.70
40)	T	4-Methyl-2-pentanon	0.228	0.324	0.312	0.229	0.269	0.236	0.262	15.49
41)	T	Toluene	0.874	1.245	1.199	0.872	1.015	0.915	1.003	15.70
42)	T	trans-1,3-Dichlorop	0.365	0.594	0.576	0.428	0.496	0.448	0.482	16.86
43)	T	1,1,2-Trichloroetha	0.280	0.409	0.395	0.296	0.349	0.320	0.340	14.11
44)	T	Tetrachloroethene	0.414	0.583	0.587	0.469	0.546	0.495	0.504	13.76
45)	T	2-Hexanone	0.578	0.691	0.651	0.487	0.554	0.477	0.557	15.97
46)	T	Chlorodibromomethan	0.380	0.608	0.594	0.461	0.547	0.521	0.516	15.28
47)	T	1,2-Dibromoethane	0.395	0.570	0.556	0.423	0.490	0.453	0.479	13.57
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.900	1.160	1.137	0.840	0.963	0.899	0.972	12.92
50)	T	Ethylbenzene	1.577	2.036	1.965	1.448	1.644	1.518	1.659	14.79
51)	T	m,p-Xylene	1.232	1.680	1.648	1.229	1.391	1.189	1.330	19.82
52)	T	o-Xylene	1.157	1.453	1.406	1.057	1.203	1.137	1.209	13.27
53)	T	Styrene	0.774	0.964	0.938	0.712	0.813	0.771	0.816	11.90
54)	T	Bromoform	0.507	0.696	0.695	0.538	0.610	0.587	0.598	12.42
55)	S	4-Bromofluorobenzen	0.622	0.552	0.544	0.557	0.551	0.542	0.557	5.32
56)	T	1,1,2,2-Tetrachloro	1.046	1.002	0.970	0.761	0.811	0.736	0.860	16.52
57)	T	4-Ethyltoluene	1.782	1.521	1.462	1.150	1.261	1.176	1.357	17.70

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 2011
Response via : Initial Calibration

Calibration Files
2 =11031105.D 4 =11031106.D 5 =11031107.D
6 =11031108.D 7 =11031109.D 8 =11031110.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.543	1.257	1.220	0.954	1.048	0.994	1.140	18.82
59)	T	1,2,4-Trimethylbenz	1.534	1.140	1.103	0.888	0.934	0.884	1.051	22.80
60)	T	1,3-Dichlorobenzene	0.894	0.698	0.688	0.551	0.555	0.518	0.630	22.30
61)	T	1,4-Dichlorobenzene	0.784	0.654	0.638	0.515	0.519	0.493	0.582	19.56
62)	T	Benzyl chloride	0.522	0.922	0.917	0.709	0.728	0.672	0.727	20.37
63)	T	1,2-Dichlorobenzene	0.886	0.636	0.616	0.501	0.485	0.452	0.571	28.05
64)	T	1,2,4-Trichlorobenz		0.118	0.116	0.091	0.092	0.101	0.103	11.03
65)	T	Hexachlorobutadiene		0.290	0.276	0.218	0.217	0.231	0.242	13.24
66)		Naphthalene		0.187	0.184	0.146	0.147	0.161	0.163	11.08

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\110311V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Fri Nov 04 09:39:32 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	10.59	1.000	A	2	A	B
2		T	Propylene	41	5.51	0.520	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.58	0.527	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.551	A	2	A	B
5		T	Chloromethane	50	6.00	0.566	A	3	A	B
6		T	Vinyl chloride	62	6.20	0.586	A	2	A	B
7		T	1,3-Butadiene	39	6.26	0.592	A	2	A	B
8		T	Bromomethane	94	6.84	0.646	A	3	A	B
9		T	Chloroethane	64	7.00	0.661	A	3	A	B
10		T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11		T	Ethanol	45	7.55	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	0.777	A	2	A	B
17		T	Methylene chloride	49	8.75	0.827	A	2	A	B
18		T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19		T	trans-1,2-Dichloroethene	61	9.04	0.853	A	2	A	B
20		T	n-Hexane	57	9.22	0.871	A	3	A	B
21		T	1,1-Dichloroethane	63	9.59	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	10.28	0.971	A	3	A	B
24		T	2-Butanone	43	10.24	0.967	A	2	A	B
25		T	Ethyl acetate	43	10.20	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	10.86	1.025	A	3	A	B
29		T	Cyclohexane	56	10.86	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31		T	Benzene	78	11.30	1.067	A	3	A	B
32		T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34		T	Heptane	43	11.35	0.971	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	12.67	1.084	A	2	A	B
39		T	cis-1,3-Dichloropropene	75	13.22	1.132	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	15.63	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	22.96	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
--------------------------------------------------------------------------------
          110311V1.M     Wed Nov 09 14:02:22 2011
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Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 2011
Response via : Initial Calibration

Calibration Files
2 =11081103.D 4 =11081104.D 5 =11081105.D
6 =11081106.D 7 =11081107.D 8 =11081108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.658	1.638	1.545	1.458	1.324	1.215	1.430	13.81
3)	T	Dichlorodifluoromet	3.080	3.678	3.554	3.414	3.176	3.026	3.279	8.18
4)	T	1,2-Dichloro-1,2,2,	2.038	2.514	2.439	2.354	2.217	2.160	2.269	7.55
5)	T	Chloromethane	1.767	1.888	1.785	1.655	1.476	1.324	1.585	16.28
6)	T	Vinyl chloride	1.807	2.015	1.990	1.903	1.711	1.420	1.705	19.86
7)	T	1,3-Butadiene	1.424	1.739	1.527	1.451	1.320	1.237	1.383	17.18
8)	T	Bromomethane	1.175	1.411	1.362	1.305	1.211	1.161	1.256	8.22
9)	T	Chloroethane	0.776	0.933	0.890	0.838	0.768	0.721	0.804	10.72
10)	T	Trichlorofluorometh	2.604	3.175	3.084	2.933	2.747	2.708	2.861	7.33
11)	T	Ethanol	0.340	0.393	0.417	0.371	0.338	0.326	0.364	9.81
12)	T	Freon113	2.230	2.862	2.703	2.472	2.313	2.309	2.424	11.34
13)	T	1,1-Dichloroethene	1.991	2.434	2.291	2.052	1.877	1.786	2.022	12.87
14)	T	Acetone	2.336	2.524	2.323	1.968	1.734	1.616	1.997	20.25
15)	T	Carbon disulfide	3.386	4.080	3.885	3.602	3.312	3.119	3.485	11.27
16)	T	2-Propanol	1.725	2.337	2.222	1.976	1.778	1.654	1.890	15.84
17)	T	Methylene chloride	1.938	2.004	1.825	1.622	1.451	1.352	1.639	17.69
18)	T	tert-Butyl Methyl E	2.866	3.220	2.957	2.520	2.284	2.200	2.599	16.14
19)	T	trans-1,2-Dichloroe	1.913	2.323	2.152	1.933	1.761	1.691	1.917	12.97
20)	T	n-Hexane	2.156	2.663	2.465	2.199	2.004	1.912	2.175	13.86
21)	T	1,1-Dichloroethane	2.299	2.697	2.500	2.221	2.026	1.932	2.222	13.62
22)	T	Vinyl acetate	3.701	4.128	3.733	3.122	2.770	2.561	3.200	20.83
23)	T	cis-1,2-Dichloroeth	1.132	1.393	1.305	1.193	1.097	1.069	1.183	10.40
24)	T	2-Butanone	2.360	2.667	2.375	2.189	1.874	1.830	2.137	16.85
25)	T	Ethyl acetate	3.185	3.551	3.289	2.844	2.421	2.293	2.822	19.10
26)	T	Tetrahydrofuran	1.409	1.751	1.601	1.390	1.251	1.131	1.365	18.77
27)	T	Chloroform	2.382	2.847	2.655	2.430	2.246	2.153	2.384	12.49
28)	T	1,1,1-Trichloroetha	1.957	2.624	2.489	2.303	2.187	2.095	2.215	12.54
29)	T	Cyclohexane	2.193	2.807	2.581	2.313	2.104	1.929	2.224	17.59
30)	T	Carbon tetrachlorid	1.743	2.279	2.156	1.990	1.885	1.859	1.964	9.75
31)	T	Benzene	3.198	3.678	3.370	2.946	2.673	2.518	2.972	15.74
32)	T	1,2-Dichloroethane	1.437	1.644	1.520	1.334	1.229	1.166	1.345	14.89
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.777	1.078	0.996	0.893	0.840	0.804	0.869	15.10
35)	T	Trichloroethene	0.368	0.497	0.472	0.434	0.422	0.436	0.436	9.30
36)	T	1,2-Dichloropropane	0.347	0.448	0.407	0.357	0.338	0.334	0.366	12.18
37)	T	1,4-Dioxane	0.107	0.145	0.149	0.135	0.127	0.125	0.130	10.82
38)	T	Bromodichloromethan	0.526	0.739	0.698	0.630	0.609	0.622	0.635	10.72
39)	T	cis-1,3-Dichloropro	0.460	0.620	0.582	0.518	0.494	0.497	0.525	10.63
40)	T	4-Methyl-2-pentanon	0.180	0.310	0.290	0.260	0.249	0.243	0.253	16.32
41)	T	Toluene	0.854	1.121	1.028	0.919	0.884	0.870	0.936	10.75
42)	T	trans-1,3-Dichlorop	0.380	0.525	0.495	0.444	0.428	0.426	0.447	10.77
43)	T	1,1,2-Trichloroetha	0.291	0.375	0.345	0.314	0.303	0.304	0.321	9.01
44)	T	Tetrachloroethene	0.410	0.555	0.525	0.477	0.477	0.480	0.481	9.97
45)	T	2-Hexanone	0.410	0.638	0.613	0.554	0.521	0.497	0.530	14.90
46)	T	Chlorodibromomethan	0.384	0.542	0.510	0.475	0.469	0.483	0.480	10.22
47)	T	1,2-Dibromoethane	0.411	0.524	0.491	0.450	0.435	0.436	0.456	8.43
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.884	1.071	0.993	0.899	0.885	0.876	0.927	8.16
50)	T	Ethylbenzene	1.502	1.837	1.705	1.542	1.510	1.460	1.568	9.47
51)	T	m,p-Xylene	1.149	1.510	1.403	1.270	1.242	1.178	1.248	13.81
52)	T	o-Xylene	1.064	1.312	1.224	1.120	1.103	1.083	1.138	8.33
53)	T	Styrene	0.785	0.899	0.839	0.780	0.761	0.744	0.793	7.19
54)	T	Bromoform	0.528	0.659	0.623	0.590	0.576	0.570	0.587	7.30
55)	S	4-Bromofluorobenzen	0.636	0.553	0.549	0.562	0.547	0.525	0.555	7.12
56)	T	1,1,2,2-Tetrachloro	1.077	0.998	0.963	0.907	0.843	0.776	0.899	13.80
57)	T	4-Ethyltoluene	1.706	1.501	1.401	1.295	1.245	1.185	1.356	14.41

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 2011
Response via : Initial Calibration

Calibration Files
2 =11081103.D 4 =11081104.D 5 =11081105.D
6 =11081106.D 7 =11081107.D 8 =11081108.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.487	1.242	1.175	1.090	1.051	1.003	1.146	15.49
59)	T	1,2,4-Trimethylbenz	1.393	1.177	1.120	1.037	0.979	0.925	1.076	15.92
60)	T	1,3-Dichlorobenzene	0.835	0.746	0.716	0.663	0.619	0.567	0.669	15.68
61)	T	1,4-Dichlorobenzene	0.749	0.699	0.671	0.623	0.587	0.536	0.625	13.87
62)	T	Benzyl chloride	0.653	0.905	0.900	0.851	0.803	0.741	0.792	12.68
63)	T	1,2-Dichlorobenzene	0.821	0.687	0.663	0.629	0.574	0.518	0.624	18.49
64)	T	1,2,4-Trichlorobenz		0.131	0.124	0.119	0.115	0.109	0.117	8.47
65)	T	Hexachlorobutadiene		0.321	0.292	0.275	0.261	0.245	0.271	11.99
66)		Naphthalene		0.216	0.202	0.195	0.187	0.173	0.190	9.56

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\110811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Nov 09 09:10:08 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	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.52	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.58	0.527	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.85	0.552	A	2	A	B
5	T	Chloromethane	50	6.00	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.586	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.646	A	3	A	B
9	T	Chloroethane	64	7.00	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11	T	Ethanol	45	7.57	0.715	A	2	A	B
12	T	Freon113	101	7.99	0.755	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.47	0.799	A	3	A	B
16	T	2-Propanol	45	8.24	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	9.04	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.60	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	0.971	A	3	A	B
24	T	2-Butanone	43	10.25	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.20	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	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	10.86	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.35	0.971	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	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.22	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.141	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	15.63	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	17.68	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	22.76	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
--------------------------------------------------------------------------------
          110811V1.M     Tue Nov 15 15:52:13 2011
```

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 2011
Response via : Initial Calibration

Calibration Files
2 =11141105.D 4 =11141107.D 5 =11141108.D
6 =11141109.D 7 =11141110.D 8 =11141111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.557	1.473	1.398	1.309	1.241	1.161	1.331	11.29
3)	T	Dichlorodifluoromet	3.260	3.656	3.481	3.269	3.146	2.999	3.270	7.05
4)	T	1,2-Dichloro-1,2,2,	2.128	2.513	2.385	2.265	2.240	2.174	2.263	6.27
5)	T	Chloromethane	1.532	1.592	1.486	1.366	1.273	1.149	1.358	13.97
6)	T	Vinyl chloride	1.713	1.887	1.790	1.683	1.546	1.138	1.527	23.28
7)	T	1,3-Butadiene	1.379	1.493	1.386	1.297	1.256	1.136	1.250	18.03
8)	T	Bromomethane	1.229	1.431	1.351	1.278	1.241	1.184	1.280	6.55
9)	T	Chloroethane	0.800	0.900	0.856	0.802	0.771	0.731	0.801	7.44
10)	T	Trichlorofluorometh	2.837	3.301	3.133	2.940	2.886	2.802	2.951	6.64
11)	T	Ethanol	0.337	0.391	0.363	0.312	0.308	0.287	0.333	11.69
12)	T	Freon113	2.353	2.800	2.581	2.374	2.359	2.261	2.389	10.53
13)	T	1,1-Dichloroethene	2.118	2.326	2.138	1.960	1.894	1.823	2.004	9.88
14)	T	Acetone	2.326	2.163	1.914	1.564	1.503	1.421	1.748	22.15
15)	T	Carbon disulfide	3.531	3.989	3.754	3.497	3.375	3.164	3.496	8.64
16)	T	2-Propanol	1.702	1.990	1.844	1.607	1.580	1.442	1.650	12.95
17)	T	Methylene chloride	1.858	1.792	1.601	1.409	1.348	1.290	1.508	16.17
18)	T	tert-Butyl Methyl E	3.080	2.866	2.551	2.075	2.058	2.015	2.377	19.09
19)	T	trans-1,2-Dichloroe	2.027	2.177	1.961	1.742	1.687	1.654	1.835	11.97
20)	T	n-Hexane	2.212	2.394	2.191	1.937	1.907	1.852	2.034	11.53
21)	T	1,1-Dichloroethane	2.442	2.562	2.341	2.037	1.968	1.919	2.165	12.74
22)	T	Vinyl acetate	3.171	3.310	2.935	2.407	2.308	2.207	2.638	18.53
23)	T	cis-1,2-Dichloroeth	1.217	1.319	1.212	1.078	1.061	1.056	1.145	9.04
24)	T	2-Butanone	2.345	2.069	1.895	1.652	1.616	1.454	1.787	18.55
25)	T	Ethyl acetate	2.807	2.856	2.553	2.165	2.051	1.894	2.316	18.05
26)	T	Tetrahydrofuran	1.364	1.433	1.298	1.101	1.062	0.981	1.161	17.65
27)	T	Chloroform	2.461	2.655	2.443	2.175	2.108	1.982	2.234	13.37
28)	T	1,1,1-Trichloroetha	2.157	2.547	2.358	2.107	2.061	1.903	2.116	13.45
29)	T	Cyclohexane	2.239	2.504	2.264	2.011	1.937	1.741	2.029	16.73
30)	T	Carbon tetrachlorid	2.007	2.291	2.103	1.875	1.865	1.826	1.957	9.77
31)	T	Benzene	3.403	3.307	2.973	2.491	2.412	2.361	2.753	16.93
32)	T	1,2-Dichloroethane	1.507	1.443	1.317	1.101	1.073	1.027	1.204	17.95
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.794	0.949	0.872	0.767	0.749	0.697	0.773	15.30
35)	T	Trichloroethene	0.392	0.491	0.456	0.410	0.412	0.421	0.423	9.14
36)	T	1,2-Dichloropropane	0.361	0.391	0.355	0.302	0.298	0.302	0.328	12.21
37)	T	1,4-Dioxane	0.122	0.154	0.142	0.124	0.120	0.118	0.127	12.01
38)	T	Bromodichloromethan	0.593	0.735	0.676	0.597	0.592	0.604	0.623	9.62
39)	T	cis-1,3-Dichloropro	0.506	0.577	0.527	0.458	0.452	0.458	0.490	9.99
40)	T	4-Methyl-2-pentanon	0.194	0.278	0.255	0.224	0.221	0.217	0.228	12.65
41)	T	Toluene	0.946	1.026	0.938	0.817	0.807	0.810	0.874	10.89
42)	T	trans-1,3-Dichlorop	0.431	0.497	0.460	0.401	0.392	0.395	0.424	9.67
43)	T	1,1,2-Trichloroetha	0.318	0.349	0.324	0.284	0.284	0.291	0.305	8.32
44)	T	Tetrachloroethene	0.439	0.542	0.508	0.458	0.473	0.461	0.468	10.14
45)	T	2-Hexanone	0.416	0.589	0.544	0.484	0.471	0.450	0.482	13.42
46)	T	Chlorodibromomethan	0.425	0.537	0.497	0.448	0.454	0.470	0.468	8.19
47)	T	1,2-Dibromoethane	0.447	0.503	0.468	0.412	0.410	0.417	0.437	8.61
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.909	0.959	0.894	0.792	0.784	0.788	0.842	9.04
50)	T	Ethylbenzene	1.578	1.626	1.494	1.347	1.319	1.295	1.408	11.36
51)	T	m,p-Xylene	1.222	1.316	1.226	1.105	1.075	0.985	1.103	16.07
52)	T	o-Xylene	1.143	1.179	1.097	1.006	0.990	0.977	1.040	9.91
53)	T	Styrene	0.792	0.819	0.767	0.705	0.688	0.690	0.729	8.84
54)	T	Bromoform	0.527	0.626	0.596	0.543	0.535	0.534	0.550	8.33
55)	S	4-Bromofluorobenzen	0.637	0.590	0.588	0.581	0.564	0.552	0.579	5.48
56)	T	1,1,2,2-Tetrachloro	1.045	0.910	0.851	0.762	0.723	0.681	0.799	18.20
57)	T	4-Ethyltoluene	1.710	1.366	1.260	1.157	1.108	1.065	1.239	19.42

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 2011
Response via : Initial Calibration

Calibration Files
2 =11141105.D 4 =11141107.D 5 =11141108.D
6 =11141109.D 7 =11141110.D 8 =11141111.D

		Compound	2	4	5	6	7	8	Avg	%RSD
58)	T	1,3,5-Trimethylbenz	1.440	1.125	1.046	0.939	0.918	O.890	1.028	20.05
59)	T	1,2,4-Trimethylbenz	1.374	1.055	0.982	0.887	0.852	O.812	0.961	21.59
60)	T	1,3-Dichlorobenzene	0.839	0.698	0.656	0.579	0.549	O.515	0.616	20.17
61)	T	1,4-Dichlorobenzene	0.753	0.663	0.618	0.547	0.519	O.489	0.577	18.34
62)	T	Benzyl chloride	0.705	0.903	0.855	0.757	0.717	O.648	0.740	14.82
63)	T	1,2-Dichlorobenzene	0.797	0.638	0.595	0.527	0.493	O.444	0.557	23.88
64)	T	1,2,4-Trichlorobenz		0.143	0.128	0.119	0.118	O.113	0.122	9.73
65)	T	Hexachlorobutadiene		0.328	0.294	0.273	0.262	O.246	0.274	11.89
66)		Naphthalene		0.245	0.217	0.205	0.200	O.187	0.207	10.70

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\111411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Nov 15 09:19:29 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	10.59	1.000	A	2	A	B
2	T	Propylene	41	5.51	0.520	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.58	0.527	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.551	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.586	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.646	A	3	A	B
9	T	Chloroethane	64	6.99	0.661	A	3	A	B
10	T	Trichlorofluoromethane	101	7.33	0.692	A	3	A	B
11	T	Ethanol	45	7.55	0.713	A	2	A	B
12	T	Freon113	101	7.99	0.754	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.18	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.23	0.777	A	2	A	B
17	T	Methylene chloride	49	8.75	0.827	A	2	A	B
18	T	tert-Butyl Methyl Ether	73	8.95	0.845	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.52	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	0.971	A	3	A	B
24	T	2-Butanone	43	10.25	0.968	A	2	A	B
25	T	Ethyl acetate	43	10.19	0.963	A	3	A	B
26	T	Tetrahydrofuran	42	10.58	1.000	A	2	A	B
27	T	Chloroform	83	10.60	1.001	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.02	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.37	1.074	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.69	1.000	A	2	A	B
34	T	Heptane	43	11.34	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	1.060	A	3	A	B
37	T	1,4-Dioxane	88	12.45	1.065	A	2	A	B
38	T	Bromodichloromethane	83	12.67	1.084	A	2	A	B
39	T	cis-1,3-Dichloropropene	75	13.22	1.131	A	2	A	B
40	T	4-Methyl-2-pentanone	58	13.33	1.140	A	3	A	B
41	T	Toluene	91	13.63	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	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	1.226	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	16.40	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	17.68	1.138	A	2	A	B
59	T	1,2,4-Trimethylbenzene	105	18.26	1.175	A	2	A	B
60	T	1,3-Dichlorobenzene	146	18.82	1.211	A	3	A	B
61	T	1,4-Dichlorobenzene	146	18.97	1.220	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	22.77	1.465	A	3	A	B
65	T	Hexachlorobutadiene	225	22.97	1.478	A	2	A	B
66		Naphthalene	128	23.46	1.510	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
--------------------------------------------------------------------------
          111411V1.M     Thu Nov 17 13:24:39 2011
```

RTI Laboratories

Run ID: VOA9_111031A **Run No.:** 43869

Analytical Run Date: 10/31/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:**

Column Length:

Run Comments: *RLVS was analyzed after CCV, though due to time change on computer it is showing up as being analyzed beforehand. This was not actually the case.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 103111 VOA9	BFB_TUNE	TUNE	R43869	10/31/2011 10:07:00 AM	Charles O`Bryan		
RLVS1 103111 VOA	MA_APH	RLVS	R43869	10/31/2011 10:38:00 AM	Charles O`Bryan		
CCV 103111 VOA9	MA_APH	CCV	R43869	10/31/2011 10:49:00 AM	Charles O`Bryan		
BLK 103111 VOA9	MA_APH	MBLK	R43869	10/31/2011 11:26:00 AM	Charles O`Bryan		
1110757-021A	MA_APH	SAMP	R43869	10/31/2011 12:12:00 PM	Charles O`Bryan		
1110757-027A	MA_APH	SAMP	R43869	10/31/2011 12:55:00 PM	Charles O`Bryan		
1110757-028A	MA_APH	SAMP	R43869	10/31/2011 1:39:00 PM	Charles O`Bryan		
1110757-029A	MA_APH	SAMP	R43869	10/31/2011 2:22:00 PM	Charles O`Bryan		
1110757-030A	MA_APH	SAMP	R43869	10/31/2011 3:11:00 PM	Charles O`Bryan		
1110757-032A	MA_APH	SAMP	R43869	10/31/2011 4:35:00 PM	Charles O`Bryan		
1110757-033A	MA_APH	SAMP	R43869	10/31/2011 5:17:00 PM	Charles O`Bryan		
1110757-033ADUP	MA_APH	SAMP	R43869	10/31/2011 5:59:00 PM	Charles O`Bryan		
1110757-009A	MA_APH	SAMP	R43869	10/31/2011 8:47:00 PM	Charles O`Bryan		
1110757-017A	MA_APH	SAMP	R43869	10/31/2011 9:30:00 PM	Charles O`Bryan		
1110757-026A	MA_APH	SAMP	R43869	10/31/2011 10:12:00 PM	Charles O`Bryan		
1111023-003A	MA_APH	SAMP	R43869	10/31/2011 10:54:00 PM	Charles O`Bryan		
1111023-010A	MA_APH	SAMP	R43869	11/1/2011 6:35:00 AM	Charles O`Bryan		
1111023-011A	MA_APH	SAMP	R43869	11/1/2011 7:23:00 AM	Charles O`Bryan		
1111023-016A	MA_APH	SAMP	R43869	11/1/2011 8:12:00 AM	Charles O`Bryan		
RLVS2 103111 VOA	MA_APH	RLVS	R43869	11/1/2011 8:54:00 AM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
859366	CCV 103111 VOA9	MA_APH	CCV	\1\DATA\103111	10/31/2011 10:4	1	R43869		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	254.61	254.61		234	0	0	0	0	0	109%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	243.19	243.19		266	0	0	0	0	0	91%	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	413.55	413.55		378	0	0	0	0	0	109%	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	92.3	92.3		89.5	0	0	0	0	0	103%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
859342	BLK 103111 VOA9	MA_APH	MBLK	\1\DATA\103111	10/31/2011 11:2	1	R43869		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	166.52	166.52		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³	26.94	0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³	1.19	0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³	82.23	82.23		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³	0	0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³	-186.14	0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³	139.58	139.58		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³	268.37	268.37		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	93.12	93.12		89.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\103111\10311102.D Vial: 2
Acq On : 31 Oct 2011 10:49 am Operator: RACHEL HILL
Sample : CCV 103111 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 20:11 2011 Quant Results File: 101111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:43:25 2011
Response via : Initial Calibration
DataAcq Meth : 101111V9

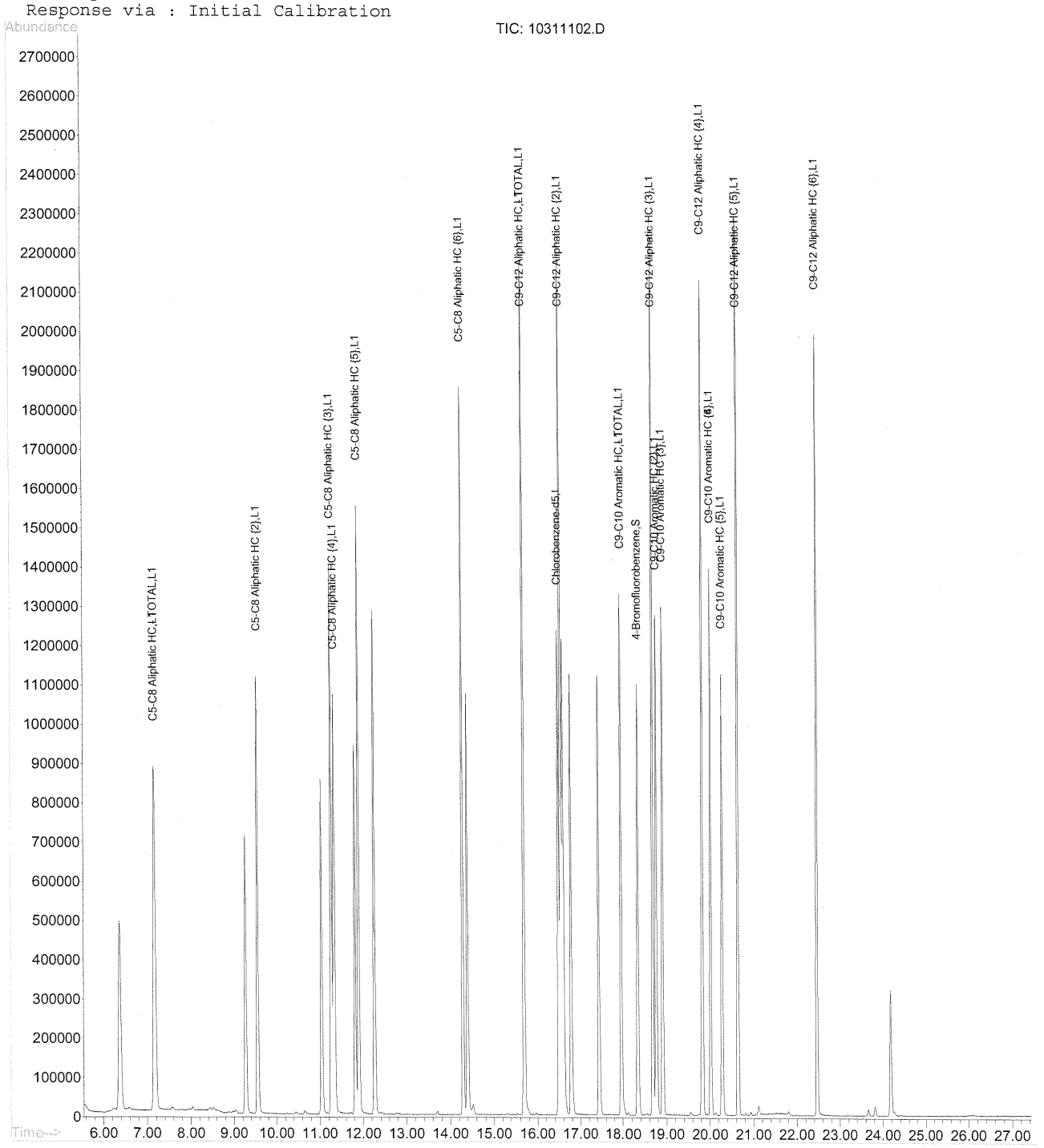
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	830392	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	552402	92.30	ug/m3	-0.01
Spiked Amount 89.500	Range 70 - 130		Recovery = 103.13%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	3005924	37.16	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2810429	38.59	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3522454	43.99	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2736479	37.41	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3389986	44.92	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3982143	52.21	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	19447415m	254.61	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	4925267	58.67	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	4896965	60.55	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4720051	68.24	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	4625289	66.03	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	4754528	79.00	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	4053176	80.59	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	27975276m	413.55	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	288659	47.03	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	302410	46.85	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	445320	48.17	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	104932	54.70	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	345806	48.07	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	252222	51.94	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1739349m	243.19	ug/m3	

(#) = qualifier out of range (m) = manual integration
10311102.D 101111V9.M Wed Nov 09 17:15:35 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\103111\10311102.D Vial: 2
Acq On : 31 Oct 2011 10:49 am Operator: RACHEL HILL
Sample : CCV 103111 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 31 20:11 2011 Quant Results File: 101111V9.RES

Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:43:25 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111103A **Run No.:** 43969

Analytical Run Date: 11/3/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 110311 VOA9	BFB_TUNE	TUNE	R43969	11/3/2011 9:17:00 AM	Charles O`Bryan		
CCV 110311 VOA9	MA_APH	CCV	R43969	11/3/2011 10:00:00 AM	Charles O`Bryan		
RLVS1 110311 VOA	MA_APH	RLVS	R43969	11/3/2011 10:46:00 AM	Charles O`Bryan		
BLK 110311 VOA9	MA_APH	MBLK	R43969	11/3/2011 11:35:00 AM	Charles O`Bryan		
1110757-035A	MA_APH	SAMP	R43969	11/3/2011 12:17:00 PM	Charles O`Bryan		
1110757-004A	MA_APH	SAMP	R43969	11/3/2011 1:00:00 PM	Charles O`Bryan		
1110757-008A	MA_APH	SAMP	R43969	11/3/2011 1:42:00 PM	Charles O`Bryan		
1110757-034A	MA_APH	SAMP	R43969	11/3/2011 3:11:00 PM	Charles O`Bryan		
1111023-002A	MA_APH	SAMP	R43969	11/3/2011 4:36:00 PM	Charles O`Bryan		
1111023-002ADUP	MA_APH	DUP	R43969	11/3/2011 5:18:00 PM	Charles O`Bryan		
1111023-005A	MA_APH	SAMP	R43969	11/3/2011 6:00:00 PM	Charles O`Bryan		
1111023-034A	MA_APH	SAMP	R43969	11/3/2011 9:30:00 PM	Charles O`Bryan		
1110757-031A	MA_APH	SAMP	R43969	11/4/2011 12:25:00 AM	Charles O`Bryan		
1111023-001A	MA_APH	SAMP	R43969	11/4/2011 1:14:00 AM	Charles O`Bryan		
1111023-030A	MA_APH	SAMP	R43969	11/4/2011 2:02:00 AM	Charles O`Bryan		
1111023-031A	MA_APH	SAMP	R43969	11/4/2011 2:51:00 AM	Charles O`Bryan		
1111023-032A	MA_APH	SAMP	R43969	11/4/2011 3:40:00 AM	Charles O`Bryan		
1111023-033A	MA_APH	SAMP	R43969	11/4/2011 4:29:00 AM	Charles O`Bryan		
1111023-012A	MA_APH	SAMP	R43969	11/4/2011 7:29:00 AM	Charles O`Bryan		
RLVS2 110311 VOA	MA_APH	RLVS	R43969	11/4/2011 8:11:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

01-Dec-11

RunNo 43969

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
861778	BFB1 110311 VOA9	BFB_TUNE	TUNE	.\1\DATA\110311	11/3/2011 9:17:0	1	R43969		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		57.8	57.8		100	0	0	0	0	0	58%	50	120	0%	
175	M		7.7	7.7		100	0	0	0	0	0	8%	4	9	0%	
176	M		96.2	96.2		100	0	0	0	0	0	96%	93	101	0%	
177	M		6.8	6.8		100	0	0	0	0	0	7%	5	9	0%	
50	M		26.4	26.4		100	0	0	0	0	0	26%	8	40	0%	
75	M		51.2	51.2		100	0	0	0	0	0	51%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
861779	CCV 110311 VOA9	MA_APH	CCV	.\1\DATA\110311	11/3/2011 10:00:	1	R43969		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	224.17	224.17		234	0	0	0	0	0	96%	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	200.72	200.72		266	0	0	0	0	0	75%	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	348.81	348.81		378	0	0	0	0	0	92%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.78	89.78		89.5	0	0	0	0	0	100%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\110311\11031102.D Vial: 2
Acq On : 3 Nov 2011 10:00 am Operator: RACHEL HILL
Sample : CCV 110311 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 4 8:28 2011 Quant Results File: 101111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:43:25 2011
Response via : Initial Calibration
DataAcq Meth : 101111V9

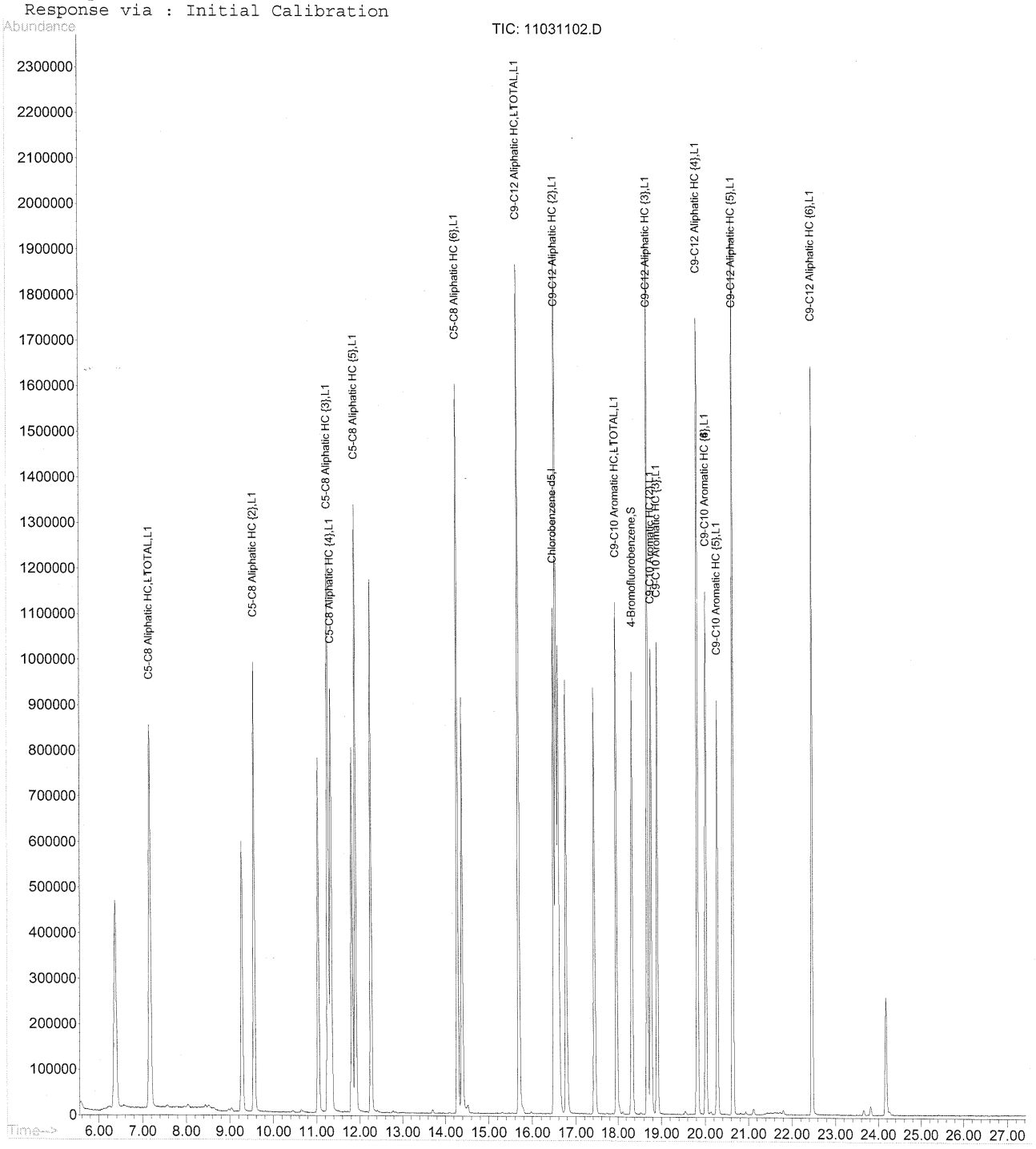
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	741688	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	479905	89.78	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 100.31%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	2882636	35.64	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2449732	33.64	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3091183	38.61	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2346532	32.08	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2943153	39.00	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3409657	44.70	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	17122893m	224.17	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	4276536	50.94	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	4198388	51.92	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3943271	57.01	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	3860529	55.11	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	3996748	66.41	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	3320483	66.02	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	23595955m	348.81	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	238121	38.80	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	249912	38.72	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	369071	39.92	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	85333	44.48	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	287197	39.92	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	205997	42.42	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1435631m	200.72	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\110311\11031102.D Vial: 2
Acq On : 3 Nov 2011 10:00 am Operator: RACHEL HILL
Sample : CCV 110311 VOA9 Inst : GC/MS Ins
Misc : CCV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 4 8:28 2011 Quant Results File: 101111V9.RES

Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:43:25 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA9_111109A **Run No.:** 44138

Analytical Run Date: 11/9/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 44138 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 110911 VOA9	BFB_TUNE	TUNE	R44138	11/9/2011 3:40:00 PM	Charles O`Bryan		
APH ICAL Level 1	MA_APH	ICAL	R44138	11/9/2011 5:05:00 PM	Charles O`Bryan		
APH ICAL Level 2	MA_APH	ICAL	R44138	11/9/2011 5:48:00 PM	Charles O`Bryan		
APH ICAL Level 3	MA_APH	ICAL	R44138	11/9/2011 6:31:00 PM	Charles O`Bryan		
APH ICAL Level 4	MA_APH	ICAL	R44138	11/9/2011 7:14:00 PM	Charles O`Bryan		
APH ICAL Level 5	MA_APH	ICAL	R44138	11/9/2011 7:58:00 PM	Charles O`Bryan		
APH ICAL Level 6	MA_APH	ICAL	R44138	11/9/2011 8:42:00 PM	Charles O`Bryan		
APH ICAL Level 7	MA_APH	ICAL	R44138	11/9/2011 9:28:00 PM	Charles O`Bryan		
BFB2 110911 VOA9	BFB_TUNE	TUNE	R44138	11/9/2011 10:09:00 PM	Charles O`Bryan		
ICV 110911 VOA9	MA_APH	ICV	R44138	11/9/2011 10:52:00 PM	Charles O`Bryan		
RLVS1 110911 VOA	MA_APH	RLVS	R44138	11/9/2011 11:34:00 PM	Charles O`Bryan		
BLK1 110911 VOA9	MA_APH	MBLK	R44138	11/10/2011 12:23:00 AM	Charles O`Bryan		
1111023-013A	MA_APH	SAMP	R44138	11/10/2011 1:13:00 AM	Charles O`Bryan		
1111023-014A	MA_APH	SAMP	R44138	11/10/2011 2:04:00 AM	Charles O`Bryan		
1111023-015A	MA_APH	SAMP	R44138	11/10/2011 3:01:00 AM	Charles O`Bryan		
1111023-006A	MA_APH	SAMP	R44138	11/10/2011 3:57:00 AM	Charles O`Bryan		
1111023-007A	MA_APH	SAMP	R44138	11/10/2011 4:47:00 AM	Charles O`Bryan		
1111023-008A	MA_APH	SAMP	R44138	11/10/2011 5:35:00 AM	Charles O`Bryan		
1111023-009A	MA_APH	SAMP	R44138	11/10/2011 6:24:00 AM	Charles O`Bryan		
1111023-022A	MA_APH	SAMP	R44138	11/10/2011 7:06:00 AM	Charles O`Bryan		
1111023-022Adup	MA_APH	SAMP	R44138	11/10/2011 7:48:00 AM	Charles O`Bryan		
1111023-023A	MA_APH	SAMP	R44138	11/10/2011 8:37:00 AM	Charles O`Bryan		
1111023-024A	MA_APH	SAMP	R44138	11/10/2011 9:26:00 AM	Charles O`Bryan		
1111023-027A	MA_APH	SAMP	R44138	11/10/2011 11:51:00 AM	Charles O`Bryan		
1111023-028A	MA_APH	SAMP	R44138	11/10/2011 12:41:00 PM	Charles O`Bryan		
1111023-029A	MA_APH	SAMP	R44138	11/10/2011 1:28:00 PM	Charles O`Bryan		
1111023-017A	MA_APH	SAMP	R44138	11/10/2011 2:18:00 PM	Charles O`Bryan		
1111023-018A	MA_APH	SAMP	R44138	11/10/2011 3:08:00 PM	Charles O`Bryan		
1111023-019A	MA_APH	SAMP	R44138	11/10/2011 3:58:00 PM	Charles O`Bryan		
1111023-020A	MA_APH	SAMP	R44138	11/10/2011 4:45:00 PM	Charles O`Bryan		
1111023-021A	MA_APH	SAMP	R44138	11/10/2011 5:28:00 PM	Charles O`Bryan		
1111023-035A	MA_APH	SAMP	R44138	11/10/2011 6:12:00 PM	Charles O`Bryan		
1111023-004A	MA_APH	SAMP	R44138	11/10/2011 6:55:00 PM	Charles O`Bryan		
1111023-025A	MA_APH	SAMP	R44138	11/10/2011 7:38:00 PM	Charles O`Bryan		
1111023-026A	MA_APH	SAMP	R44138	11/10/2011 8:21:00 PM	Charles O`Bryan		
RLVS2 110911 VOA	MA_APH	RLVS	R44138	11/10/2011 9:05:00 PM	Charles O`Bryan		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
865711	BFB2 110911 VOA9	BFB_TUNE	TUNE	\1\DATA\110911\11/9/2011 10:09:		1	R44138		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		100	0	0	0	0	0	0%	0	2	0%	
174	M		55.8	55.8		100	0	0	0	0	0	56%	50	120	0%	
175	M		7.5	7.5		100	0	0	0	0	0	8%	4	9	0%	
176	M		97.8	97.8		100	0	0	0	0	0	98%	93	101	0%	
177	M		6.6	6.6		100	0	0	0	0	0	7%	5	9	0%	
50	M		27.2	27.2		100	0	0	0	0	0	27%	8	40	0%	
75	M		51.7	51.7		100	0	0	0	0	0	52%	30	66	0%	
95	M		100	100		100	0	0	0	0	0	100%	100	100	0%	
96	M		6.9	6.9		100	0	0	0	0	0	7%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
865719	ICV 110911 VOA9	MA_APH	ICV	\1\DATA\110911\11/9/2011 10:52:		1	R44138		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	236.98	236.98		234	0	0	0	0	0	101%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	265.46	265.46		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	387.79	387.79		378	0	0	0	0	0	103%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.76	89.76		89.5	0	0	0	0	0	100%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
865720	RLVS1 110911 VOA	MA_APH	RLVS	\1\DATA\110911\11/9/2011 11:34:		1	R44138		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\110911\11091111.D Vial: 11
Acq On : 9 Nov 2011 10:52 pm Operator: RACHEL HILL
Sample : ICV 110911 VOA9 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 10 11:59 2011 Quant Results File: 110811V9.RES

Quant Method : C:\HPCHEM\1\METHODS\110811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Nov 10 11:53:00 2011
Response via : Initial Calibration
DataAcq Meth : 110811V9

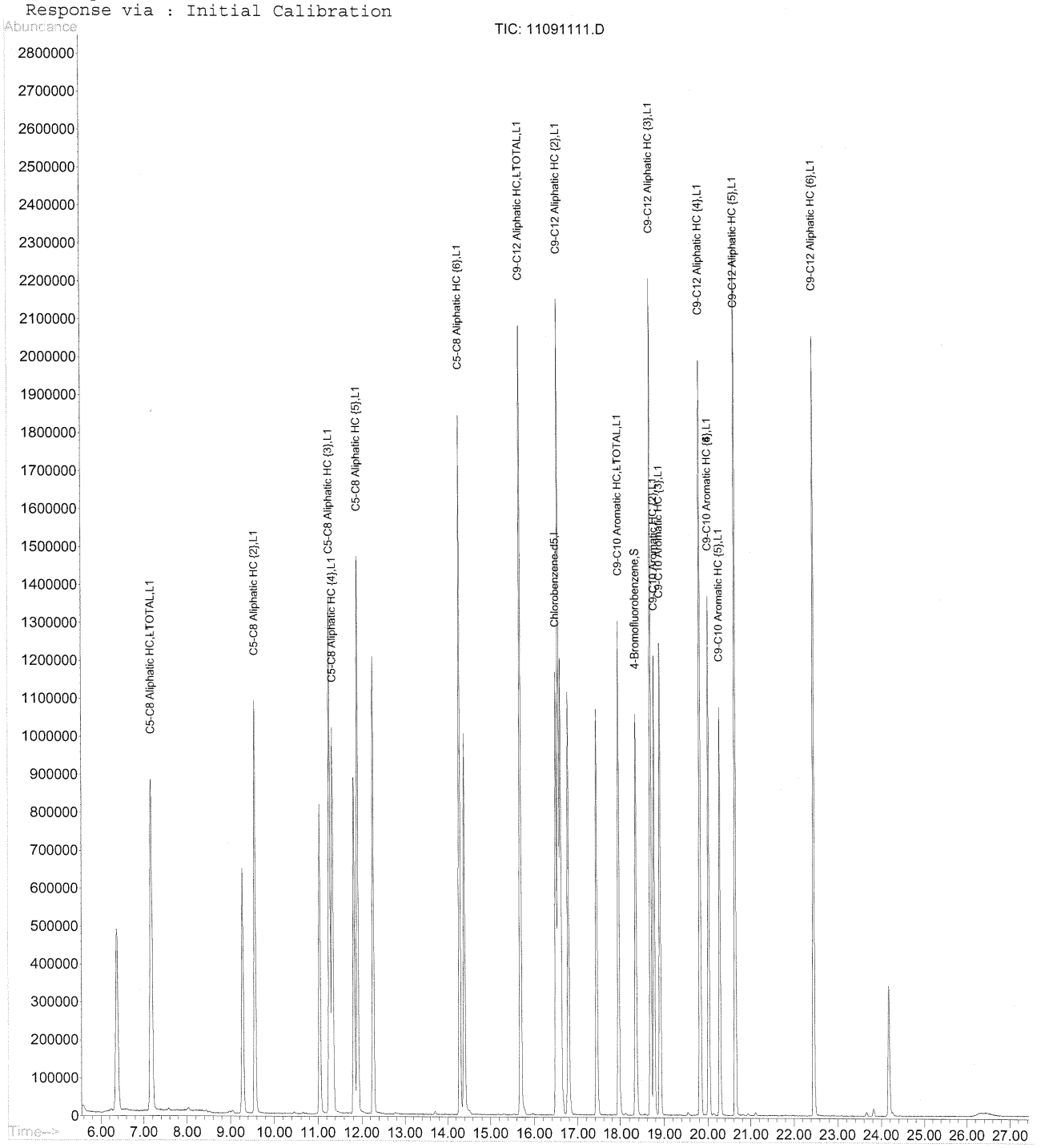
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	769870	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	529805	89.76	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 100.29%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	2998675	30.61	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2711088	36.52	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	3476650	42.30	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2591553	35.20	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3344542	42.62	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3916769	49.45	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	19039277m	236.98	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	4841534	55.48	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	4762244	55.46	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4628233	63.02	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	4424417	62.00	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	4754794	72.56	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	4163156	79.95	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	27574378m	387.79	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	278222	51.19	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	295920	51.10	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	431121	52.04	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	101596	58.24	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	336824	52.32	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	246161	58.82	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1689844m	265.46	ug/m3	

(#) = qualifier out of range (m) = manual integration
11091111.D 110811V9.M Fri Nov 11 11:57:35 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\110911\11091111.D Vial: 11
Acq On : 9 Nov 2011 10:52 pm Operator: RACHEL HILL
Sample : ICV 110911 VOA9 Inst : GC/MS Ins
Misc : ICV MA APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 10 11:59 2011 Quant Results File: 110811V9.RES

Method : C:\HPCHEM\1\METHODS\110811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Nov 10 11:53:00 2011
Response via : Initial Calibration



Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:43:25 2011
Response via : Initial Calibration

Calibration Files
1 =10111103.D 2 =10111104.D 3 =10111105.D
4 =10111106.D 5 =10111107.D 6 =10111108.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	9.890	8.523	8.255	8.056	7.739	7.306	8.088	E4	12.08
2)	L1	C5-C8 Aliphatic HC	9.106	7.873	7.399	7.239	6.879	6.476	7.282	E4	13.89
3)	L1	C5-C8 Aliphatic HC	9.980	8.743	8.224	7.857	7.654	7.172	8.007	E4	14.28
4)	L1	C5-C8 Aliphatic HC	8.816	7.700	7.378	7.418	6.924	6.592	7.315	E4	11.13
5)	L1	C5-C8 Aliphatic HC	9.283	8.120	7.709	7.646	7.258	6.700	7.546	E4	13.51
6)	L1	C5-C8 Aliphatic HC	9.395	8.276	8.020	7.710	7.314	6.720	7.627	E4	14.59
7)	L1	C5-C8 Aliphatic HC	9.409	8.212	7.830	7.659	7.297	6.808	7.638	E4	13.34
8)	L1	C9-C12 Aliphatic HC	1.049	0.916	0.886	0.855	0.801	0.735	0.839	E5	15.87
9)	L1	C9-C12 Aliphatic HC	9.874	8.947	8.514	8.172	7.613	7.184	8.087	E4	14.58
10)	L1	C9-C12 Aliphatic HC	8.599	7.639	7.437	6.998	6.546	6.048	6.917	E4	16.32
11)	L1	C9-C12 Aliphatic HC	8.742	7.741	7.468	7.138	6.609	6.098	7.005	E4	16.37
12)	L1	C9-C12 Aliphatic HC	7.428	6.630	6.495	6.127	5.726	5.262	6.018	E4	16.18
13)	L1	C9-C12 Aliphatic HC	5.988	5.459	5.425	5.139	4.757	4.533	5.029	E4	13.73
14)	L1	C9-C12 Aliphatic HC	8.333	7.436	7.224	6.876	6.406	5.953	6.765	E4	15.52
15)	L1	C9-C10 Aromatic HC	7.342	6.577	6.323	6.148	5.885	5.623	6.137	E3	11.83
16)	L1	C9-C10 Aromatic HC	7.710	6.919	6.622	6.419	6.171	5.935	6.454	E3	11.44
17)	L1	C9-C10 Aromatic HC	1.115	0.990	0.948	0.925	0.887	0.850	0.924	E4	12.20
18)	L1	C9-C10 Aromatic HC	2.297	2.079	2.008	1.928	1.825	1.753	1.918	E3	12.74
19)	L1	C9-C10 Aromatic HC	8.631	7.775	7.398	7.121	6.815	6.601	7.194	E3	11.82
20)	L1	C9-C10 Aromatic HC	5.825	5.221	5.063	4.866	4.639	4.440	4.856	E3	12.38
21)	L1	C9-C10 Aromatic HC	8.598	7.701	7.366	7.124	6.810	6.569	7.152	E3	12.06
22)		C5-C8 Aliphatic	9.409	8.212	7.830	7.659	7.297	6.808	7.638	E4	13.34
23)	L1	non C5-C8	7.955	6.956	6.894	6.603	6.360	6.045	6.643	E4	11.04
24)	L1	non C5-C8 {2}	7.000	6.146	5.794	5.513	5.295	4.830	5.585	E4	14.90
25)	L1	non C5-C8 {3}	3.412	3.296	3.297	3.303	3.249	3.234	3.286	E4	2.01
26)	L1	non C5-C8 {4}	8.559	7.448	7.065	6.877	6.604	6.242	6.950	E4	12.70
27)	L1	non C5-C8 {5}	5.179	4.983	5.007	5.023	4.891	4.696	4.909	E4	4.18
28)	L1	non C5-C8 {6}	8.059	6.933	6.548	6.387	6.031	5.591	6.394	E4	14.65
29)	L1	non C5-C8 - TOTAL	5.500	5.498	5.454	5.459	5.378	5.221	5.364	E4	3.24
30)		C9-C12 Aliphatic	8.333	7.436	7.224	6.876	6.406	5.953	6.765	E4	15.52
31)	L1	non C9-C12	5.078	4.786	4.716	4.896	4.810	4.493	4.725	E4	5.49
32)	L1	non C9-C12 {2}	7.165	6.398	6.232	5.887	5.691	5.059	5.834	E4	15.53
33)	L1	non C9-C12 {3}	7.390	6.569	6.269	6.054	5.829	5.531	6.100	E4	12.34
34)	L1	non C9-C12 {4}	7.301	6.528	6.224	5.984	5.723	5.452	6.032	E4	12.43
35)	L1	non C9-C12 {5}	2.980	2.959	2.929	2.919	2.900	2.835	2.909	E4	1.88
36)	L1	non C9-C12 - TOTAL	4.363	4.230	4.131	4.074	3.981	3.757	3.997	E4	7.75
37)	L1	C9-C10 Aromatic	8.598	7.701	7.366	7.124	6.810	6.569	7.152	E3	12.06
38)	L1	C9-C10 Aromatic {2}	8.598	7.701	7.366	7.124	6.810	6.569	7.152	E3	12.06
39)	L1	C9-C10 Aromatic - T	8.598	7.701	7.366	7.124	6.810	6.569	7.152	E3	12.06
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.088	0.090	0.089	0.089	0.090	0.092	0.090		1.92

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:43:25 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

101111V9.M Wed Nov 09 17:14:39 2011

Response Factor Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\110811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Nov 10 11:53:00 2011
Response via : Initial Calibration

Calibration Files
1 =11091103.D 2 =11091104.D 3 =11091105.D
4 =11091106.D 5 =11091107.D 6 =11091108.D

		Compound	1	2	3	4	5	6	Avg		%RSD
1)	L1	C5-C8 Aliphatic HC	1.267	1.045	0.995	0.952	0.931	0.870	0.980	E5	15.32
2)	L1	C5-C8 Aliphatic HC	9.278	7.772	7.270	7.057	7.231	6.910	7.423	E4	12.27
3)	L1	C5-C8 Aliphatic HC	1.031	0.856	0.816	0.777	0.799	0.762	0.822	E5	12.48
4)	L1	C5-C8 Aliphatic HC	9.032	7.792	7.136	6.960	7.237	6.840	7.363	E4	11.29
5)	L1	C5-C8 Aliphatic HC	9.571	8.263	7.750	7.485	7.639	7.355	7.847	E4	11.08
6)	L1	C5-C8 Aliphatic HC	9.630	8.316	7.853	7.611	7.743	7.423	7.920	E4	11.01
7)	L1	C5-C8 Aliphatic HC	9.976	8.452	7.945	7.679	7.815	7.433	8.034	E4	12.12
8)	L1	C9-C12 Aliphatic HC	1.074	0.929	0.866	0.853	0.846	0.808	0.873	E5	12.29
9)	L1	C9-C12 Aliphatic HC	1.030	0.912	0.847	0.868	0.847	0.801	0.859	E5	11.56
10)	L1	C9-C12 Aliphatic HC	9.134	7.767	7.393	7.225	7.150	6.714	7.344	E4	13.12
11)	L1	C9-C12 Aliphatic HC	8.859	7.553	7.174	6.980	6.859	6.539	7.137	E4	12.68
12)	L1	C9-C12 Aliphatic HC	8.075	6.905	6.554	6.552	6.364	6.005	6.553	E4	12.57
13)	L1	C9-C12 Aliphatic HC	6.350	5.378	5.020	5.239	5.061	4.905	5.207	E4	11.05
14)	L1	C9-C12 Aliphatic HC	8.729	7.506	7.064	7.058	6.913	6.570	7.111	E4	12.18
15)	L1	C9-C10 Aromatic HC	6.487	5.529	5.253	5.225	5.258	5.203	5.436	E3	8.87
16)	L1	C9-C10 Aromatic HC	6.973	5.906	5.604	5.506	5.582	5.495	5.791	E3	9.36
17)	L1	C9-C10 Aromatic HC	1.003	0.848	0.803	0.798	0.800	0.780	0.828	E4	9.77
18)	L1	C9-C10 Aromatic HC	2.061	1.748	1.700	1.688	1.717	1.682	1.745	E3	8.31
19)	L1	C9-C10 Aromatic HC	7.763	6.525	6.244	6.163	6.220	6.121	6.438	E3	9.39
20)	L1	C9-C10 Aromatic HC	4.970	4.241	4.039	4.008	4.063	4.034	4.185	E3	8.56
21)	L1	C9-C10 Aromatic HC	7.658	6.487	6.159	6.092	6.140	6.065	6.366	E3	9.32
22)		C5-C8 Aliphatic	9.976	8.452	7.945	7.679	7.815	7.433	8.034	E4	12.12
23)	L1	non C5-C8	9.718	8.446	8.002	7.671	7.448	7.125	7.883	E4	12.42
24)	L1	non C5-C8 {2}	7.002	5.486	5.058	4.913	5.082	4.792	5.234	E4	16.38
25)	L1	non C5-C8 {3}	3.178	3.229	3.248	3.081	3.219	3.146	3.175	E4	1.92
26)	L1	non C5-C8 {4}	8.371	7.065	6.611	6.370	6.455	6.158	6.685	E4	12.63
27)	L1	non C5-C8 {5}	4.928	5.055	5.101	4.768	4.800	4.736	4.860	E4	3.57
28)	L1	non C5-C8 {6}	7.563	6.312	6.032	5.821	5.986	5.712	6.125	E4	11.25
29)	L1	non C5-C8 - TOTAL	5.380	5.391	5.305	5.196	5.412	5.362	5.318	E4	1.79
30)		C9-C12 Aliphatic	8.729	7.506	7.064	7.058	6.913	6.570	7.111	E4	12.18
31)	L1	non C9-C12	4.730	4.707	4.761	4.405	4.472	4.415	4.573	E4	3.39
32)	L1	non C9-C12 {2}	7.167	5.912	5.632	5.235	5.298	5.106	5.535	E4	15.54
33)	L1	non C9-C12 {3}	7.131	6.085	5.633	5.630	5.646	5.475	5.842	E4	10.55
34)	L1	non C9-C12 {4}	6.996	5.940	5.558	5.442	5.549	5.355	5.716	E4	10.69
35)	L1	non C9-C12 {5}	2.785	2.861	2.954	2.804	2.856	2.818	2.861	E4	2.37
36)	L1	non C9-C12 - TOTAL	4.154	3.982	3.870	3.731	3.807	3.729	3.832	E4	5.11
37)	L1	C9-C10 Aromatic	7.658	6.487	6.159	6.092	6.140	6.065	6.366	E3	9.32
38)	L1	C9-C10 Aromatic {2}	7.658	6.487	6.159	6.092	6.140	6.065	6.366	E3	9.32
39)	L1	C9-C10 Aromatic - T	7.658	6.487	6.159	6.092	6.140	6.065	6.366	E3	9.32
40)	I	Chlorobenzene-d5	----------ISTD----------								
41)	S	4-Bromofluorobenzen	0.094	0.094	0.094	0.096	0.096	0.097	0.096		1.94

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\110811V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Nov 10 11:53:00 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

110811V9.M Fri Nov 11 11:57:02 2011

RTI Laboratories

Run ID: GC-TCD 1_111116A **Run No.:** 44466

Analytical Run Date: 11/16/2011 **InstrumentID:** GC-TCD 1

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

Calibration ID: 43865 **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	R44466	11/16/2011 12:18:00 PM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R44466	11/16/2011 1:29:00 PM	Charles O`Bryan		
lcs	ASTM-D2504	LCS	R44466	11/16/2011 1:54:00 PM	Charles O`Bryan		
crql std 2% a	ASTM-D2504	CRQL	R44466	11/16/2011 2:13:00 PM	Charles O`Bryan		
1111023-023b	ASTM-D2504	SAMP	R44466	11/16/2011 3:22:00 PM	Charles O`Bryan		
1111023-024b	ASTM-D2504	SAMP	R44466	11/16/2011 3:45:00 PM	Charles O`Bryan		
1111023-025b	ASTM-D2504	SAMP	R44466	11/16/2011 4:35:00 PM	Charles O`Bryan		
1111023-026b	ASTM-D2504	SAMP	R44466	11/16/2011 5:13:00 PM	Charles O`Bryan		
1111023-027b	ASTM-D2504	SAMP	R44466	11/16/2011 6:12:00 PM	Charles O`Bryan		
1111023-028b	ASTM-D2504	SAMP	R44466	11/16/2011 6:36:00 PM	Charles O`Bryan		
1111023-029b	ASTM-D2504	SAMP	R44466	11/16/2011 7:02:00 PM	Charles O`Bryan		
1111023-029bdup	ASTM-D2504	DUP	R44466	11/16/2011 7:20:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R44466	11/16/2011 7:45:00 PM	Charles O`Bryan		
crql std 2% b	ASTM-D2504	CRQL	R44466	11/16/2011 8:51:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

01-Dec-11

RunNo 44466

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872631	mblk	ASTM-D2504	MBLK	\TA\111611\1116	11/16/2011 12:1	1	R44466		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
872632	ccv std 1-2 a	ASTM-D2504	CCV	\TA\111611\1116	11/16/2011 1:29:	1	R44466		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.503	2.503		2.5	0	0	0.025	0.1	0	100%	85	115	0%	
Carbon Monoxide	A	%	2.495	2.495		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	%	2.003	2.003		2	0	0	0.025	0.5	0	100%	85	115	0%	
Nitrogen	A	%	2.862	2.862		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.503	2.503		2.5	0	0	0.025	0.1	0	100%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872633	lcs	ASTM-D2504	LCS	\TA\111611\1116	11/16/2011 1:54:	1	R44466		0	872632	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.324	2.324		2.5	0	2.503	0.025	0.1	0	93%	70	130	7%	
Carbon Monoxide	A	%	2.328	2.328		2.5	0	2.495	0.025	0.1	0	93%	70	130	7%	
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	%	1.869	1.869		2	0	2.003	0.025	0.5	0	93%	70	130	7%	
Nitrogen	A	%	2.637	2.637		2.5	0	2.862	0.025	0.1	0	105%	70	130	8%	
Oxygen	A	%	2.319	2.319		2.5	0	2.503	0.025	0.1	0	93%	70	130	8%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872642	1111023-029bdup	ASTM-D2504	DUP	ıTA\111611\1116	11/16/2011 7:20:	1	R44466		0	872641	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.157	0.157		0	0	0.16	0.025	0.1	0	0%	0	0	2%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	77.621	77.621		0	0	78.353	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	20.443	20.443		0	0	20.491	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
872643	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\111611\1116	11/16/2011 7:45:	1	R44466		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.689	2.689		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Carbon Monoxide	A	%	2.332	2.332		2.5	0	0	0.025	0.1	0	93%	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	%	1.893	1.893		2	0	0	0.025	0.5	0	95%	85	115	0%	
Nitrogen	A	%	2.783	2.783		2.5	0	0	0.025	0.1	0	111%	85	115	0%	
Oxygen	A	%	2.413	2.413		2.5	0	0	0.025	0.1	0	97%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872644	crql std 2% b	ASTM-D2504	CRQL	ıTA\111611\1116	11/16/2011 8:51:	1	R44466		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.35	0.35		0.3	0	0	0.025	0.1	0	117%	80	120	0%	
Carbon Monoxide	A	%	0.15	0.15		0.14	0	0	0.025	0.1	0	107%	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	%	0.103	0.103		0.09	0	0	0.025	0.5	0	114%	80	120	0%	
Nitrogen	A	%	1.373	1.373		1.39	0	0	0.025	0.1	0	99%	80	120	0%	
Oxygen	A	%	0.073	0.073		0.08	0	0	0.025	0.1	0	91%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111611\11161102.D Vial: 1
Acq On : 16 Nov 2011 1:29 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	2.503	-0.1	0	0.02
2	Nitrogen	2.500	2.862	-14.5	0	0.00
3	Carbon Monoxide	2.500	2.495	0.2	0	-0.04
4	Methane	2.000	2.003	-0.2	0	-0.06
5	Carbon dioxide	2.500	2.503	-0.1	0	-0.08

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\111611\11161102.D Vial: 1
Acq On : 16 Nov 2011 1:29 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 Dec 01 12:10:52 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111611\11161102.D Vial: 1
Acq On : 16 Nov 2011 1:29 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 16 14:03 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Nov 11 18:58:31 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	2.12	358711	2.503 %
2)	Nitrogen	2.30	493048	2.862 %
3)	Carbon Monoxide	2.99	393004	2.495 %
4)	Methane	6.19f	258133	2.003 %
5)	Carbon dioxide	11.09	453548	2.503 %

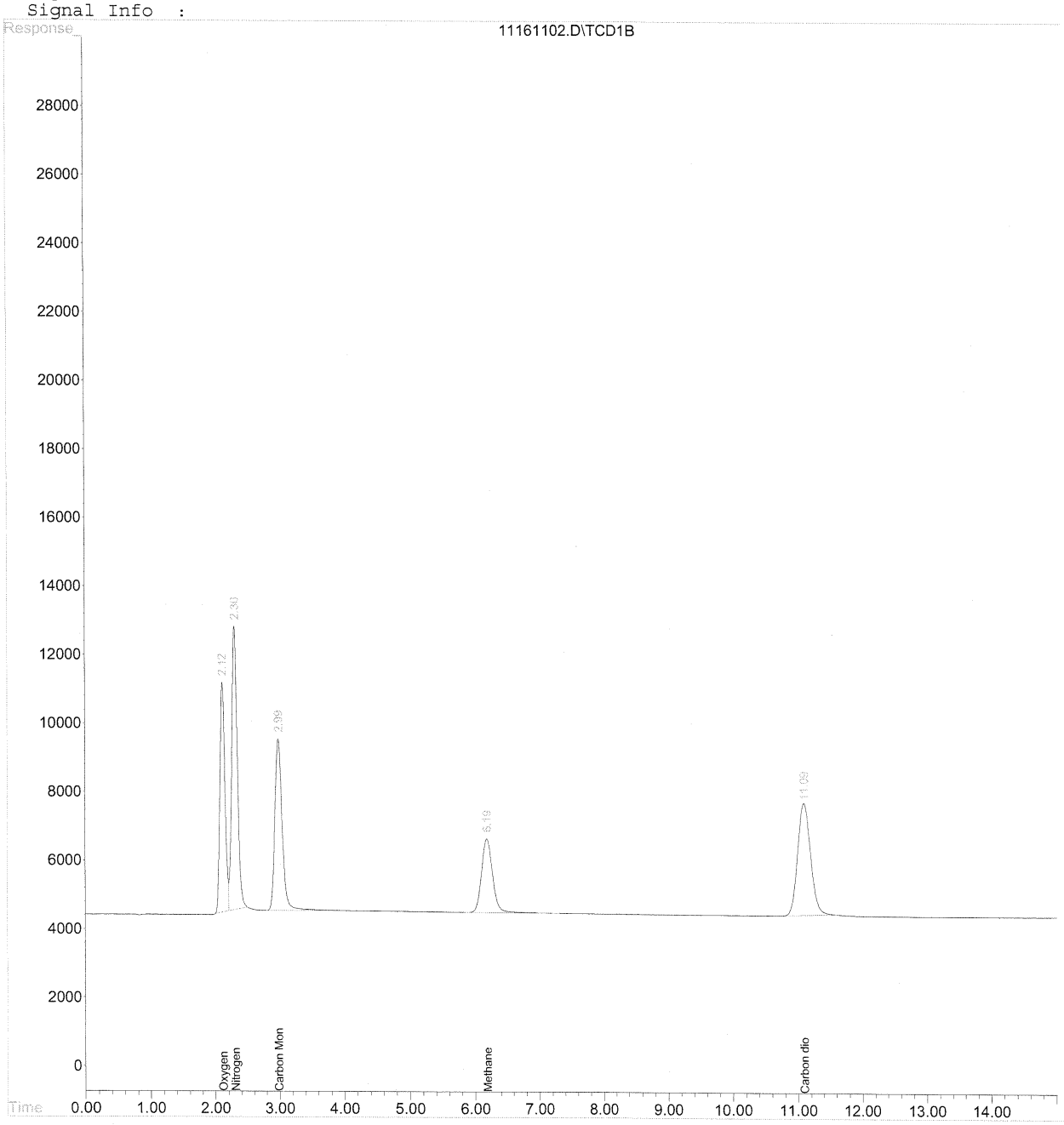
(f)=RT Delta > 1/2 Window (m)=manual int.
11161102.D 030511.M Thu Dec 01 12:09:17 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111611\11161102.D Vial: 1
Acq On : 16 Nov 2011 1:29 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 16 14:03 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Fri Nov 11 18:58:31 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\111611\11161113.D Vial: 1
Acq On : 16 Nov 2011 7:45 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	2.413	3.5	0	0.03
2	Nitrogen	2.500	2.783	-11.3	0	0.02
3	Carbon Monoxide	2.500	2.332	6.7	0	-0.02
4	Methane	2.000	1.893	5.3	0	-0.04
5	Carbon dioxide	2.500	2.689	-7.6	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\111611\11161113.D Vial: 1
Acq On : 16 Nov 2011 7:45 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 Dec 01 12:11:23 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111611\11161113.D Vial: 1
Acq On : 16 Nov 2011 7:45 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 20 23:51 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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	345738	2.413	%
2)	Nitrogen	2.32	479415	2.783	%
3)	Carbon Monoxide	3.00	367240	2.332	%
4)	Methane	6.21	242876	1.893	%
5)	Carbon dioxide	11.12f	488460	2.689	%

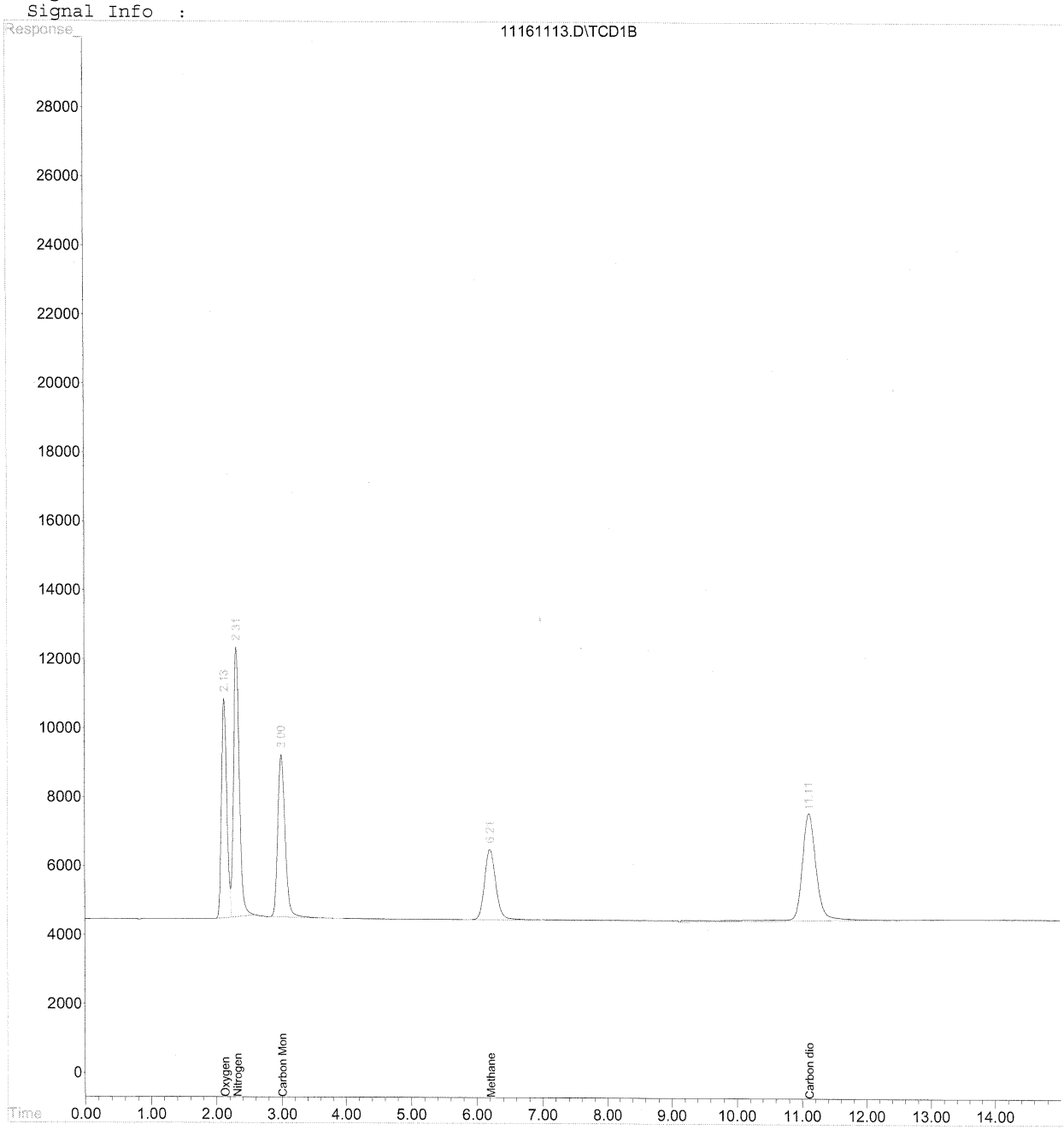
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111611\11161113.D Vial: 1
Acq On : 16 Nov 2011 7:45 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 20 23:51 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_111117A **Run No.:** 44467

Analytical Run Date: 11/17/2011 **InstrumentID:** GC-TCD 1

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

Calibration ID: 43865 **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	R44467	11/17/2011 11:13:00 AM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R44467	11/17/2011 11:38:00 AM	Charles O`Bryan		
lcs	ASTM-D2504	LCS	R44467	11/17/2011 12:52:00 PM	Charles O`Bryan		
crql std 2% a	ASTM-D2504	CRQL	R44467	11/17/2011 1:13:00 PM	Charles O`Bryan		
1111023-001b	ASTM-D2504	SAMP	R44467	11/17/2011 2:53:00 PM	Charles O`Bryan		
1111023-002b	ASTM-D2504	SAMP	R44467	11/17/2011 3:24:00 PM	Charles O`Bryan		
1111023-003b	ASTM-D2504	SAMP	R44467	11/17/2011 3:44:00 PM	Charles O`Bryan		
1111023-016b	ASTM-D2504	SAMP	R44467	11/17/2011 4:38:00 PM	Charles O`Bryan		
1111023-017b	ASTM-D2504	SAMP	R44467	11/17/2011 5:26:00 PM	Charles O`Bryan		
1111023-018b	ASTM-D2504	SAMP	R44467	11/17/2011 5:47:00 PM	Charles O`Bryan		
1111023-019b	ASTM-D2504	SAMP	R44467	11/17/2011 6:45:00 PM	Charles O`Bryan		
1111023-020b	ASTM-D2504	SAMP	R44467	11/17/2011 7:08:00 PM	Charles O`Bryan		
1111023-021b	ASTM-D2504	SAMP	R44467	11/17/2011 7:28:00 PM	Charles O`Bryan		
1111023-022b	ASTM-D2504	SAMP	R44467	11/17/2011 7:54:00 PM	Charles O`Bryan		
1111023-022bdup	ASTM-D2504	DUP	R44467	11/17/2011 8:14:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R44467	11/17/2011 8:36:00 PM	Charles O`Bryan		
crql std 2% b	ASTM-D2504	CRQL	R44467	11/17/2011 8:58:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

01-Dec-11

RunNo 44467

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872645	mblk	ASTM-D2504	MBLK	\TA\111711\1117	11/17/2011 11:1	1	R44467		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
872646	ccv std 1-2 a	ASTM-D2504	CCV	\TA\111711\1117	11/17/2011 11:3	1	R44467		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.154	2.154		2.5	0	0	0.025	0.1	0	86%	85	115	0%	
Carbon Monoxide	A	%	2.21	2.21		2.5	0	0	0.025	0.1	0	88%	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	%	1.79	1.79		2	0	0	0.025	0.5	0	90%	85	115	0%	
Nitrogen	A	%	2.596	2.596		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	%	2.199	2.199		2.5	0	0	0.025	0.1	0	88%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872647	lcs	ASTM-D2504	LCS	\TA\111711\1117	11/17/2011 12:5	1	R44467		0	872646	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.238	2.238		2.5	0	2.154	0.025	0.1	0	90%	70	130	4%	
Carbon Monoxide	A	%	2.195	2.195		2.5	0	2.21	0.025	0.1	0	88%	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	%	1.789	1.789		2	0	1.79	0.025	0.5	0	89%	70	130	0%	
Nitrogen	A	%	2.71	2.71		2.5	0	2.596	0.025	0.1	0	108%	70	130	4%	
Oxygen	A	%	2.307	2.307		2.5	0	2.199	0.025	0.1	0	92%	70	130	5%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872658	1111023-022b (Container-01 of 01)	ASTM-D2504	SAMP	\TA\111711\1117	11/17/2011 7:54:	1	R44467		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	17.06	17.06		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
872659	1111023-022bdup	ASTM-D2504	DUP	\TA\111711\1117	11/17/2011 8:14:	1	R44467		0	872658	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	1.384	1.384		0	0	1.405	0.025	0.1	0	0%	0	0	2%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	80.718	80.718		0	0	81.144	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	16.971	16.971		0	0	17.06	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
872660	ccv std 1-2 b	ASTM-D2504	CCV	\TA\111711\1117	11/17/2011 8:36:	1	R44467		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.403	2.403		2.5	0	0	0.025	0.1	0	96%	85	115	0%	
Carbon Monoxide	A	%	2.232	2.232		2.5	0	0	0.025	0.1	0	89%	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	%	1.795	1.795		2	0	0	0.025	0.5	0	90%	85	115	0%	
Nitrogen	A	%	2.807	2.807		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	%	2.376	2.376		2.5	0	0	0.025	0.1	0	95%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872661	crql std 2% b	ASTM-D2504	CRQL	\TA\111711\1117	11/17/2011 8:58:	1	R44467		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.347	0.347		0.3	0	0	0.025	0.1	0	116%	80	120	0%	
Carbon Monoxide	A	%	0.15	0.15		0.14	0	0	0.025	0.1	0	107%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111711\11171102.D Vial: 1
Acq On : 17 Nov 2011 11:38 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	2.199	12.0	0	0.02
2	Nitrogen	2.500	2.596	-3.8	0	0.00
3	Carbon Monoxide	2.500	2.210	11.6	0	-0.03
4	Methane	2.000	1.790	10.5	0	-0.05
5	Carbon dioxide	2.500	2.154	13.8	0	-0.08

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\111711\11171102.D Vial: 1
Acq On : 17 Nov 2011 11:38 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 Dec 01 12:18:05 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111711\11171102.D Vial: 1
Acq On : 17 Nov 2011 11:38 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 20 23:54 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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	2.12	314888	2.199 %
2)	Nitrogen	2.31	447209	2.596 %
3)	Carbon Monoxide	2.99	348077	2.210 %
4)	Methane	6.19f	228576	1.790 %
5)	Carbon dioxide	11.10f	388642	2.154 %

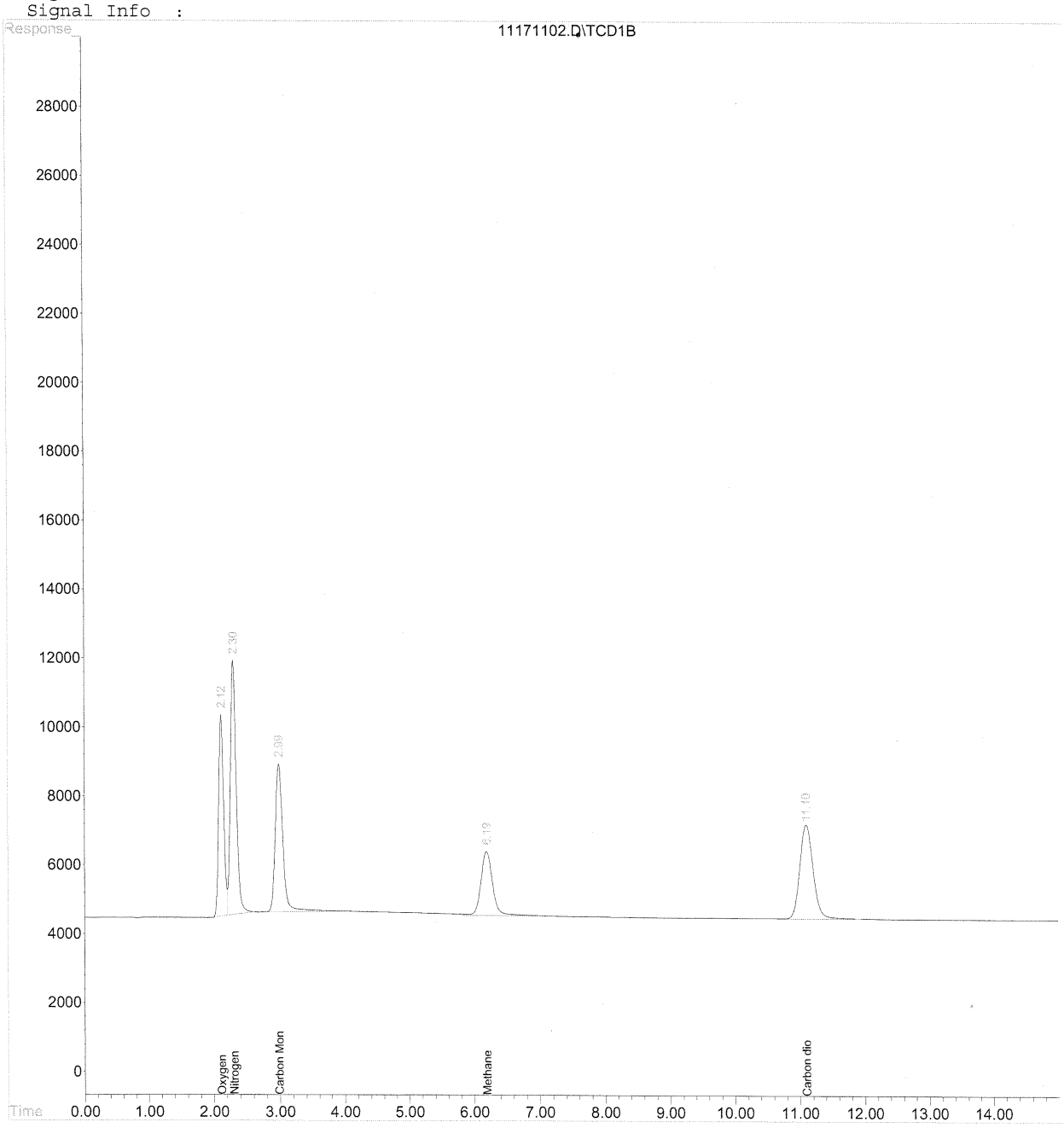
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111711\11171102.D Vial: 1
Acq On : 17 Nov 2011 11:38 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 20 23:54 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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\111711\11171116.D Vial: 1
Acq On : 17 Nov 2011 8:36 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	2.376	5.0	0	0.03
2	Nitrogen	2.500	2.807	-12.3	0	0.02
3	Carbon Monoxide	2.500	2.232	10.7	0	-0.02
4	Methane	2.000	1.795	10.3	0	-0.03
5	Carbon dioxide	2.500	2.403	3.9	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\111711\11171116.D Vial: 1
Acq On : 17 Nov 2011 8:36 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 Dec 01 12:18:21 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111711\11171116.D Vial: 1
Acq On : 17 Nov 2011 8:36 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 20 23:52 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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	340398	2.376	%
2)	Nitrogen	2.32	483550	2.807	%
3)	Carbon Monoxide	3.01	351491	2.232	%
4)	Methane	6.22	229335	1.795	%
5)	Carbon dioxide	11.13	434785	2.403	%

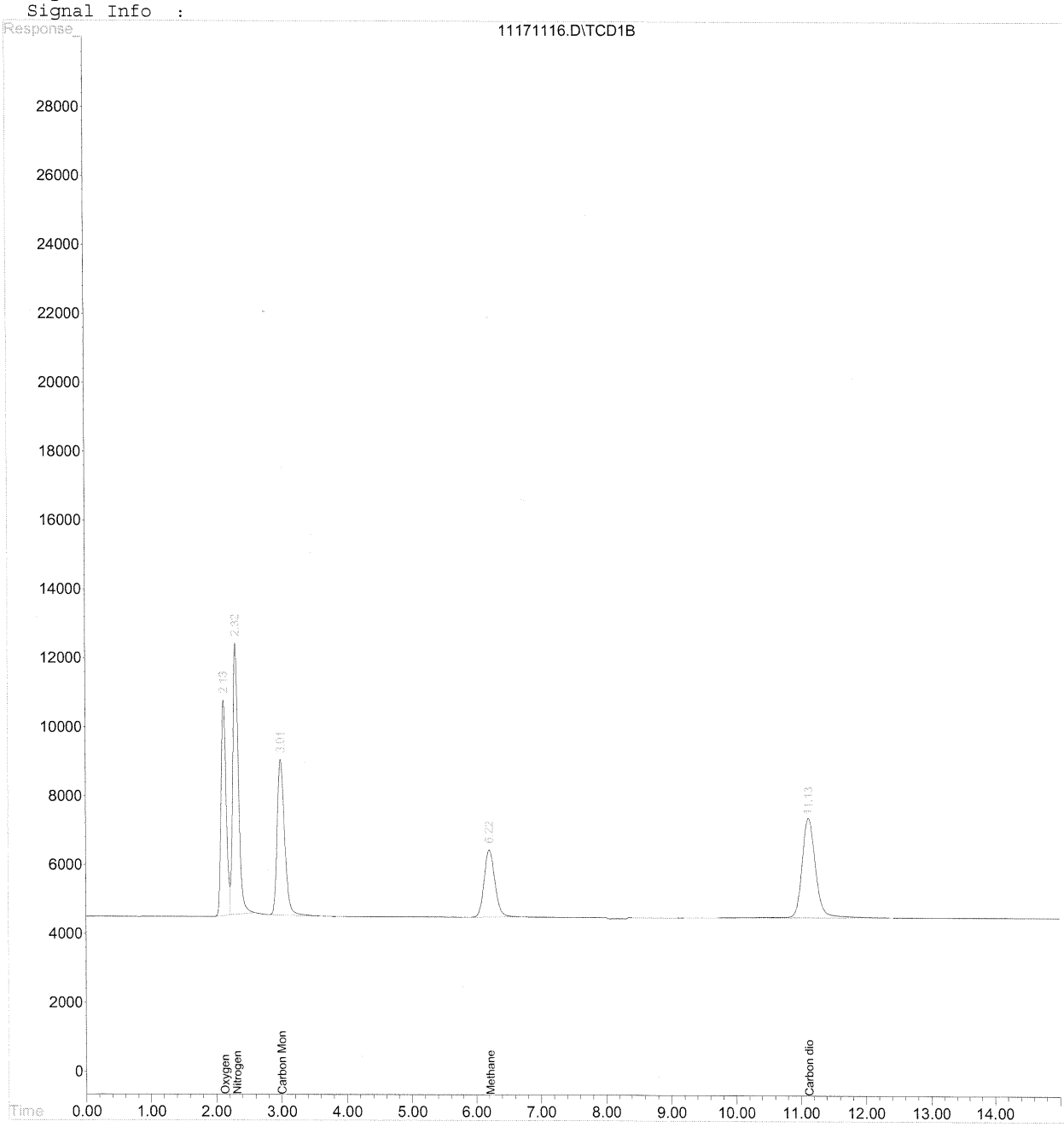
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111711\11171116.D Vial: 1
Acq On : 17 Nov 2011 8:36 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 20 23:52 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_111118A **Run No.:** 44468

Analytical Run Date: 11/18/2011 **InstrumentID:** GC-TCD 1

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

Calibration ID: 43865 **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	R44468	11/18/2011 12:44:00 PM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R44468	11/18/2011 1:20:00 PM	Charles O`Bryan		
lcs	ASTM-D2504	LCS	R44468	11/18/2011 2:13:00 PM	Charles O`Bryan		
crql std 2% a	ASTM-D2504	CRQL	R44468	11/18/2011 3:02:00 PM	Charles O`Bryan		
1111023-004b	ASTM-D2504	SAMP	R44468	11/18/2011 3:25:00 PM	Charles O`Bryan		
1111023-005b	ASTM-D2504	SAMP	R44468	11/18/2011 3:54:00 PM	Charles O`Bryan		
1111023-030b	ASTM-D2504	SAMP	R44468	11/18/2011 4:47:00 PM	Charles O`Bryan		
1111023-031b	ASTM-D2504	SAMP	R44468	11/18/2011 5:06:00 PM	Charles O`Bryan		
1111023-032b	ASTM-D2504	SAMP	R44468	11/18/2011 5:27:00 PM	Charles O`Bryan		
1111023-033b	ASTM-D2504	SAMP	R44468	11/18/2011 6:00:00 PM	Charles O`Bryan		
1111023-034b	ASTM-D2504	SAMP	R44468	11/18/2011 6:47:00 PM	Charles O`Bryan		
1111023-035b	ASTM-D2504	SAMP	R44468	11/18/2011 7:09:00 PM	Charles O`Bryan		
1111023-035bdup	ASTM-D2504	DUP	R44468	11/18/2011 7:34:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R44468	11/18/2011 8:20:00 PM	Charles O`Bryan		
crql std 2% b	ASTM-D2504	CRQL	R44468	11/18/2011 9:59:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

01-Dec-11

RunNo 44468

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872662	mblk	ASTM-D2504	MBLK	\TA\111811\1118	11/18/2011 12:4	1	R44468		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
872663	ccv std 1-2 a	ASTM-D2504	CCV	\TA\111811\1118	11/18/2011 1:20:	1	R44468		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.189	2.189		2.5	0	0	0.025	0.1	0	88%	85	115	0%	
Carbon Monoxide	A	%	2.2	2.2		2.5	0	0	0.025	0.1	0	88%	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	%	1.725	1.725		2	0	0	0.025	0.5	0	86%	85	115	0%	
Nitrogen	A	%	2.796	2.796		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	%	2.286	2.286		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
872664	lcs	ASTM-D2504	LCS	\TA\111811\1118	11/18/2011 2:13:	1	R44468		0	872663	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.137	2.137		2.5	0	2.189	0.025	0.1	0	85%	70	130	2%	
Carbon Monoxide	A	%	2.152	2.152		2.5	0	2.2	0.025	0.1	0	86%	70	130	2%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	1.745	1.745		2	0	1.725	0.025	0.5	0	87%	70	130	1%	
Nitrogen	A	%	2.845	2.845		2.5	0	2.796	0.025	0.1	0	114%	70	130	2%	
Oxygen	A	%	2.321	2.321		2.5	0	2.286	0.025	0.1	0	93%	70	130	2%	

1

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872673	1111023-035b (Container-01 of 01)	ASTM-D2504	SAMP	\TA\111811\1118	11/18/2011 7:09:	1	R44468		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.512	0.512		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	%	79.21	79.21		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.249	19.249		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
872674	1111023-035bdup	ASTM-D2504	DUP	\TA\111811\1118	11/18/2011 7:34:	1	R44468		0	872673	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.511	0.511		0	0	0.512	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	%	79.384	79.384		0	0	79.21	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.286	19.286		0	0	19.249	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
872675	ccv std 1-2 b	ASTM-D2504	CCV	\TA\111811\1118	11/18/2011 8:20:	1	R44468		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.208	2.208		2.5	0	0	0.025	0.1	0	88%	85	115	0%	
Carbon Monoxide	A	%	2.192	2.192		2.5	0	0	0.025	0.1	0	88%	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	%	1.837	1.837		2	0	0	0.025	0.5	0	92%	85	115	0%	
Nitrogen	A	%	2.839	2.839		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.378	2.378		2.5	0	0	0.025	0.1	0	95%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\111811\11181102.D Vial: 1
Acq On : 18 Nov 2011 1:20 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	2.286	8.6	0	0.02
2	Nitrogen	2.500	2.796	-11.8	0	0.00
3	Carbon Monoxide	2.500	2.200	12.0	0	-0.03
4	Methane	2.000	1.725	13.7	0	-0.05
5	Carbon dioxide	2.500	2.189	12.4	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\111811\11181102.D Vial: 1
Acq On : 18 Nov 2011 1:20 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 Dec 01 12:21:57 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111811\11181102.D Vial: 1
Acq On : 18 Nov 2011 1:20 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 19 18:25 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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	2.12	327400	2.286 %
2)	Nitrogen	2.31	481643	2.796 %
3)	Carbon Monoxide	3.00	346443	2.200 %
4)	Methane	6.20	219673	1.725 %
5)	Carbon dioxide	11.11f	395036	2.189 %

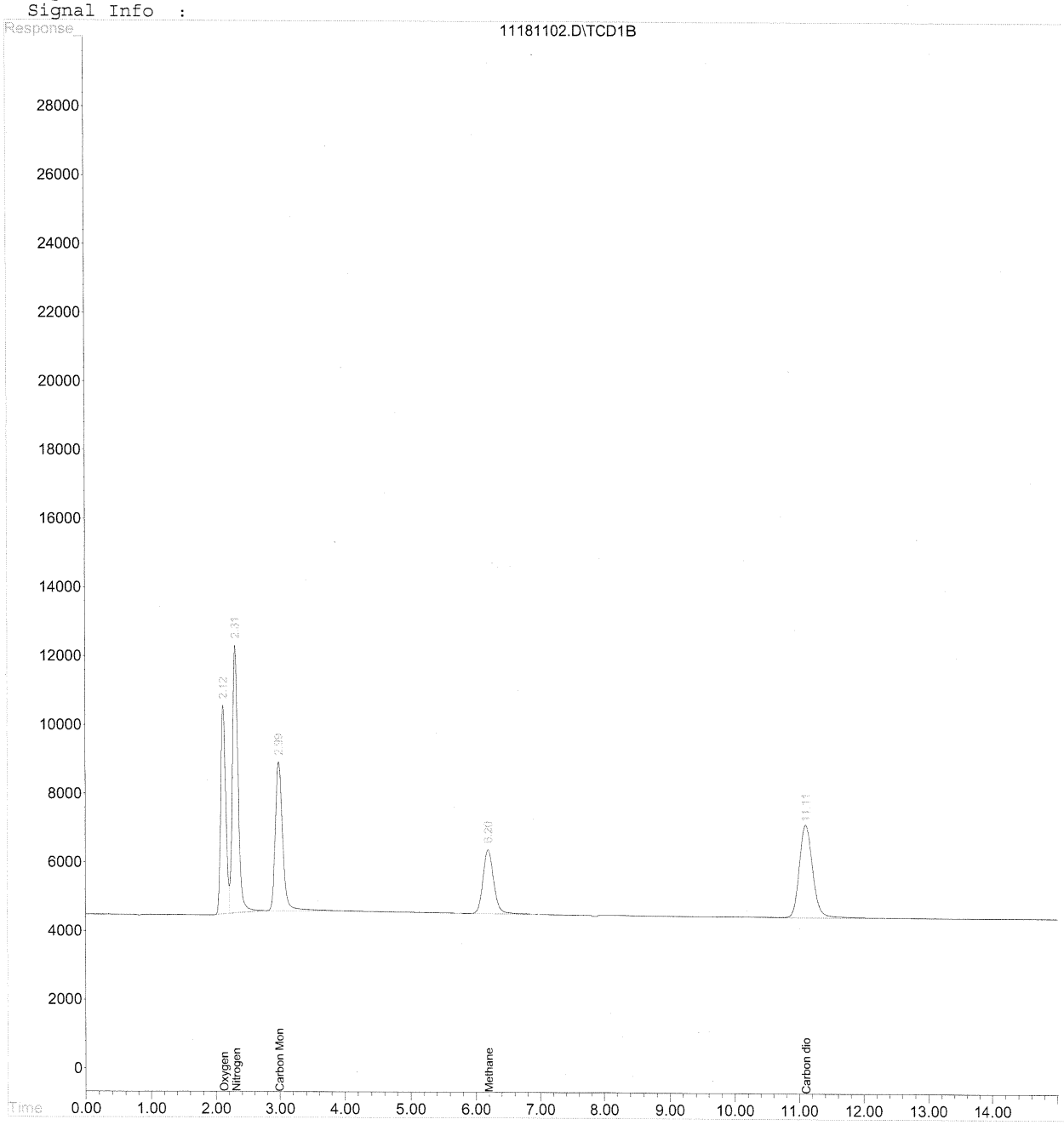
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111811\11181102.D Vial: 1
Acq On : 18 Nov 2011 1:20 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 19 18:25 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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\111811\11181114.D Vial: 1
Acq On : 18 Nov 2011 8:20 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	2.378	4.9	0	0.04
2	Nitrogen	2.500	2.839	-13.6	0	0.02
3	Carbon Monoxide	2.500	2.192	12.3	0	-0.01
4	Methane	2.000	1.837	8.2	0	-0.02
5	Carbon dioxide	2.500	2.208	11.7	0	-0.04

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\111811\11181114.D Vial: 1
Acq On : 18 Nov 2011 8:20 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 Dec 01 12:22:05 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111811\11181114.D Vial: 1
Acq On : 18 Nov 2011 8:20 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 19 18:27 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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	340730	2.378 %
2)	Nitrogen	2.32	489046	2.839 %
3)	Carbon Monoxide	3.01	345281	2.192 %
4)	Methane	6.23	235092	1.837 %
5)	Carbon dioxide	11.13	398622	2.208 %

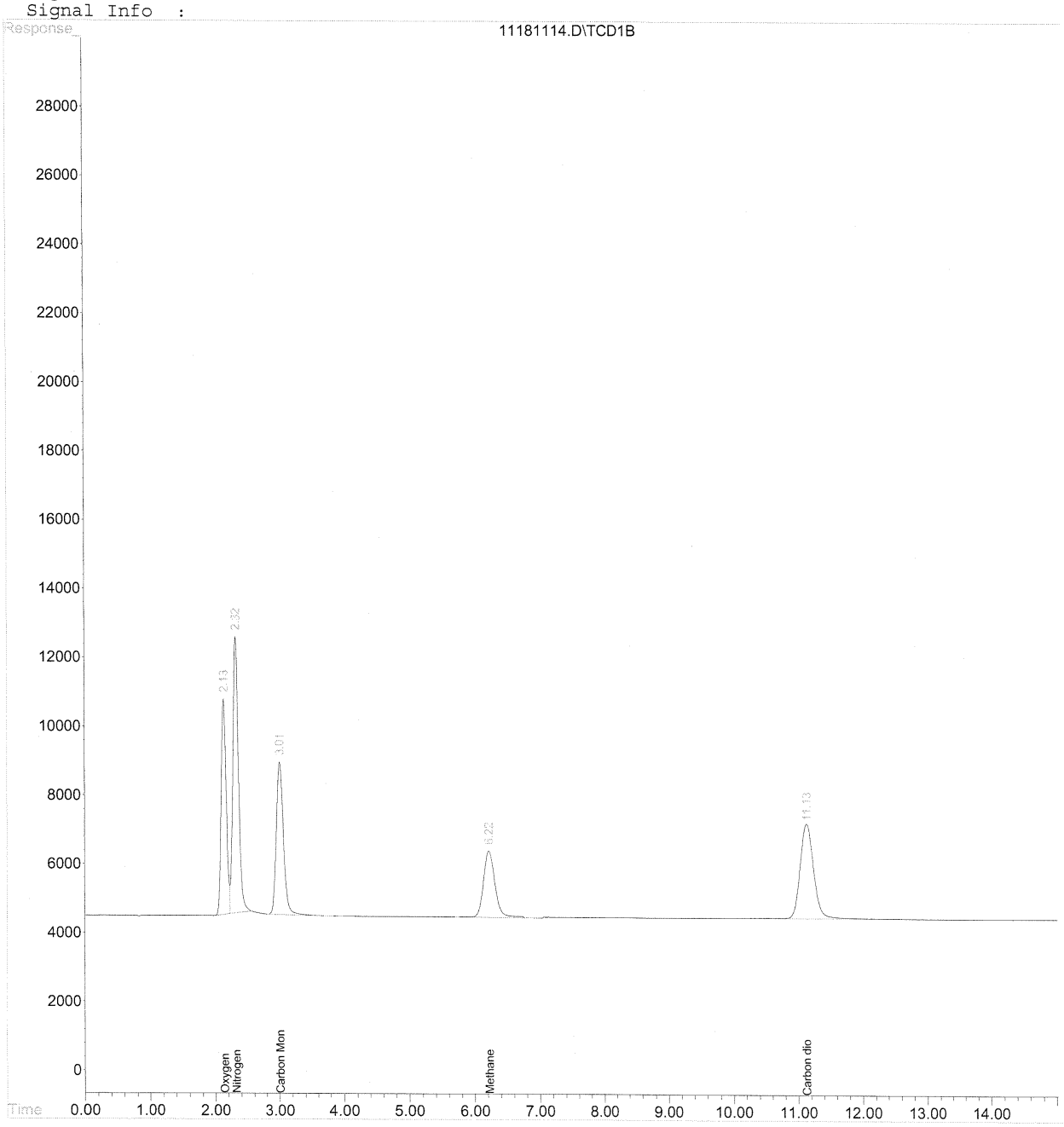
(f)=RT Delta > 1/2 Window (m)=manual int.
11181114.D 030511.M Thu Dec 01 12:20:49 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\111811\11181114.D Vial: 1
Acq On : 18 Nov 2011 8:20 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 19 18:27 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Multiple Level Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_111120A **Run No.:** 44469

Analytical Run Date: 11/20/2011 **InstrumentID:** GC-TCD 1

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

Calibration ID: 43865 **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	R44469	11/20/2011 3:32:00 PM	Charles O`Bryan		
ccv std 1-2 a	ASTM-D2504	CCV	R44469	11/20/2011 4:41:00 PM	Charles O`Bryan		
lcs	ASTM-D2504	LCS	R44469	11/20/2011 5:07:00 PM	Charles O`Bryan		
crql std 2% a	ASTM-D2504	CRQL	R44469	11/20/2011 5:29:00 PM	Charles O`Bryan		
1111023-006b	ASTM-D2504	SAMP	R44469	11/20/2011 5:52:00 PM	Charles O`Bryan		
1111023-007b	ASTM-D2504	SAMP	R44469	11/20/2011 6:11:00 PM	Charles O`Bryan		
1111023-008b	ASTM-D2504	SAMP	R44469	11/20/2011 9:14:00 PM	Charles O`Bryan		
1111023-009b	ASTM-D2504	SAMP	R44469	11/20/2011 9:37:00 PM	Charles O`Bryan		
1111023-010b	ASTM-D2504	SAMP	R44469	11/20/2011 9:56:00 PM	Charles O`Bryan		
1111023-011b	ASTM-D2504	SAMP	R44469	11/20/2011 10:15:00 PM	Charles O`Bryan		
1111023-012b	ASTM-D2504	SAMP	R44469	11/20/2011 10:34:00 PM	Charles O`Bryan		
1111023-013b	ASTM-D2504	SAMP	R44469	11/20/2011 10:52:00 PM	Charles O`Bryan		
1111023-014b	ASTM-D2504	SAMP	R44469	11/20/2011 11:17:00 PM	Charles O`Bryan		
1111023-015b	ASTM-D2504	SAMP	R44469	11/20/2011 11:35:00 PM	Charles O`Bryan		
1111023-015bdup	ASTM-D2504	DUP	R44469	11/20/2011 11:53:00 PM	Charles O`Bryan		
ccv std 1-2 b	ASTM-D2504	CCV	R44469	11/21/2011 12:13:00 AM	Charles O`Bryan		
crql std 2% b	ASTM-D2504	CRQL	R44469	11/21/2011 1:33:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

01-Dec-11

RunNo 44469

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872677	mblk	ASTM-D2504	MBLK	.TA\112011\1120	11/20/2011 3:32:	1	R44469		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
872678	ccv std 1-2 a	ASTM-D2504	CCV	.TA\112011\1120	11/20/2011 4:41:	1	R44469		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.712	2.712		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Carbon Monoxide	A	%	2.547	2.547		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	%	2.009	2.009		2	0	0	0.025	0.5	0	100%	85	115	0%	
Nitrogen	A	%	2.675	2.675		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.465	2.465		2.5	0	0	0.025	0.1	0	99%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872679	lcs	ASTM-D2504	LCS	.TA\112011\1120	11/20/2011 5:07:	1	R44469		0	872678	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.509	2.509		2.5	0	2.712	0.025	0.1	0	100%	70	130	8%	
Carbon Monoxide	A	%	2.431	2.431		2.5	0	2.547	0.025	0.1	0	97%	70	130	5%	
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	%	1.95	1.95		2	0	2.009	0.025	0.5	0	98%	70	130	3%	
Nitrogen	A	%	2.836	2.836		2.5	0	2.675	0.025	0.1	0	113%	70	130	6%	
Oxygen	A	%	2.547	2.547		2.5	0	2.465	0.025	0.1	0	102%	70	130	3%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
872690	1111023-015b (Container-01 of 01)	ASTM-D2504	SAMP	.TA\112011\1120	11/20/2011 11:3	1	R44469		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Nitrogen	A	%	78.015	78.015		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.947	20.947		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
872691	1111023-015bdup	ASTM-D2504	DUP	.TA\112011\1120	11/20/2011 11:5	1	R44469		0	872690	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.095	0.095		0	0	0.098	0.025	0.1	0	0%	0	0	3%	J
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	77.858	77.858		0	0	78.015	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.946	20.946		0	0	20.947	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
872692	ccv std 1-2 b	ASTM-D2504	CCV	.TA\112011\1120	11/21/2011 12:1	1	R44469		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.718	2.718		2.5	0	0	0.025	0.1	0	109%	85	115	0%	
Carbon Monoxide	A	%	2.626	2.626		2.5	0	0	0.025	0.1	0	105%	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	%	2.082	2.082		2	0	0	0.025	0.5	0	104%	85	115	0%	
Nitrogen	A	%	2.836	2.836		2.5	0	0	0.025	0.1	0	113%	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
872693	crql std 2% b	ASTM-D2504	CRQL	.TA\112011\1120	11/21/2011 1:33:	1	R44469		0	0	

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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\112011\11201102.D Vial: 1
Acq On : 20 Nov 2011 4:41 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	2.465	1.4	0	0.04
2	Nitrogen	2.500	2.675	-7.0	0	0.03
3	Carbon Monoxide	2.500	2.547	-1.9	0	0.00
4	Methane	2.000	2.009	-0.4	0	-0.02
5	Carbon dioxide	2.500	2.712	-8.5	0	-0.04

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\112011\11201102.D Vial: 1
Acq On : 20 Nov 2011 4:41 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 20 23:48 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

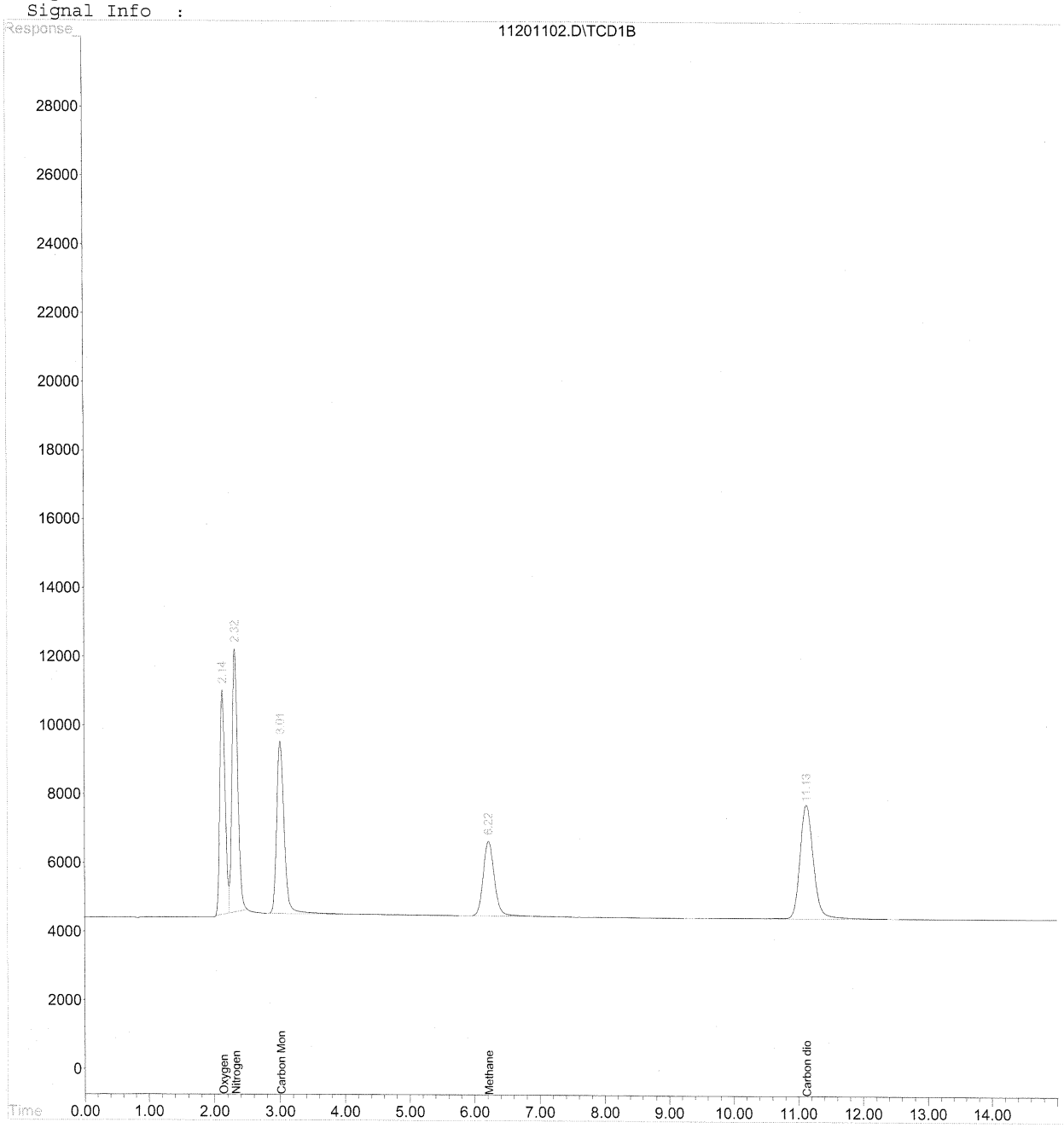
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	353213	2.465 %
2)	Nitrogen	2.33	460758	2.675 %
3)	Carbon Monoxide	3.02	401126	2.547 %
4)	Methane	6.23	258982	2.009 %
5)	Carbon dioxide	11.13	492816	2.712 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\112011\11201102.D Vial: 1
Acq On : 20 Nov 2011 4:41 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 20 23:48 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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\112011\11201116.D Vial: 1
Acq On : 21 Nov 2011 12:13 am 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	2.636	-5.4	0	0.04
2	Nitrogen	2.500	2.836	-13.4	0	0.03
3	Carbon Monoxide	2.500	2.626	-5.0	0	0.00
4	Methane	2.000	2.082	-4.1	0	-0.01
5	Carbon dioxide	2.500	2.718	-8.7	0	-0.03

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\112011\11201116.D Vial: 1
Acq On : 21 Nov 2011 12:13 am Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 23 13:44 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

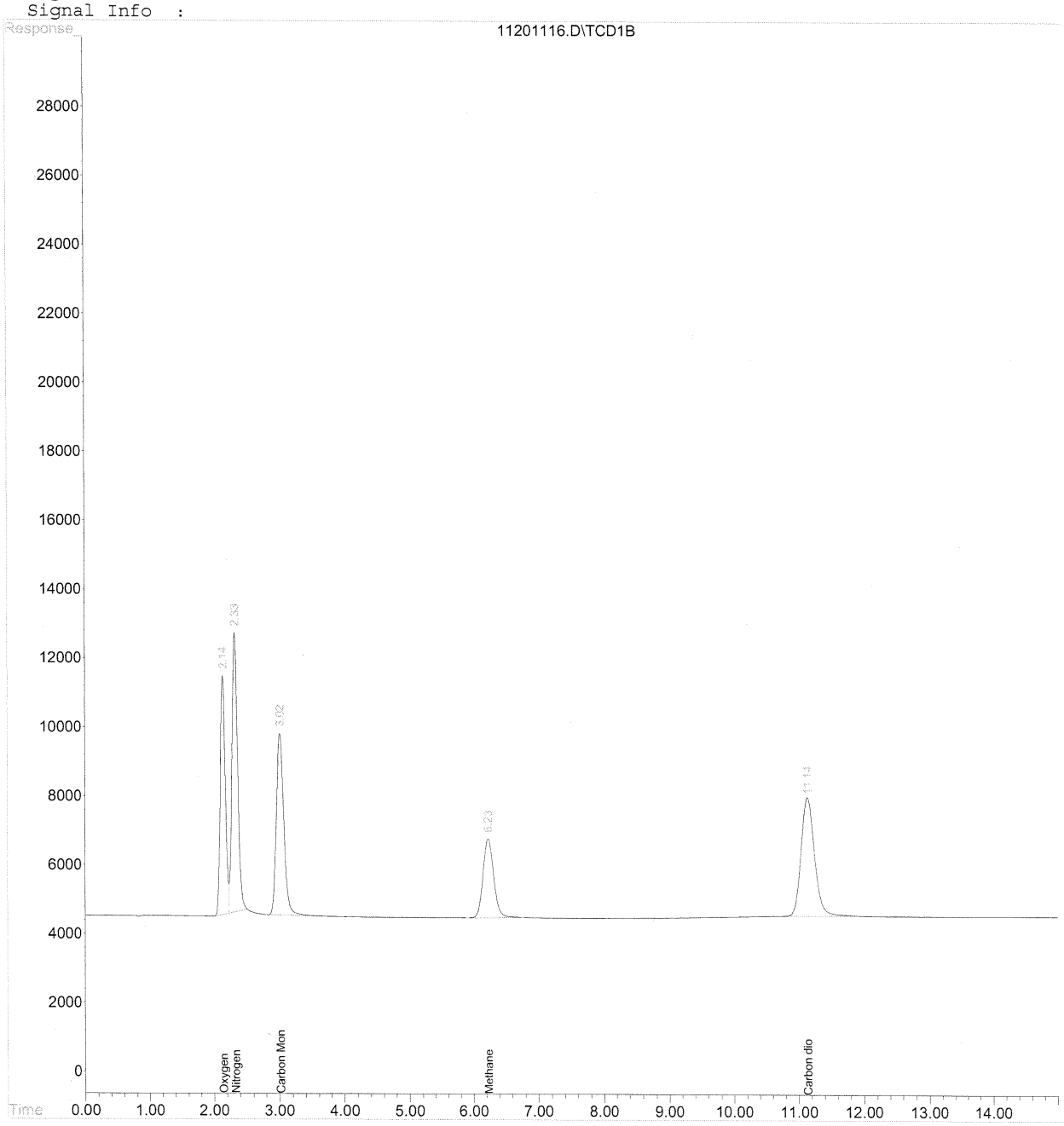
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	377997	2.636 %
2)	Nitrogen	2.33	488550	2.836 %
3)	Carbon Monoxide	3.02	413617	2.626 %
4)	Methane	6.24	269141	2.082 %
5)	Carbon dioxide	11.14	493791	2.718 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\112011\11201116.D Vial: 1
Acq On : 21 Nov 2011 12:13 am Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Nov 23 13:44 2011 Quant Results File: 030511.RES

Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Wed May 25 15:37:00 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

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
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	2.652	-6.1	0	0.04
2	Nitrogen	2.500	2.834	-13.4	0	0.03
3	Carbon Monoxide	2.500	2.540	-1.6	0	0.00
4	Methane	2.000	1.986	0.7	0	0.00
5	Carbon dioxide	2.500	2.596	-3.8	0	0.00

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
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 10:35:49 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jun 16 9:53 2011 Quant Results File: 030511.RES

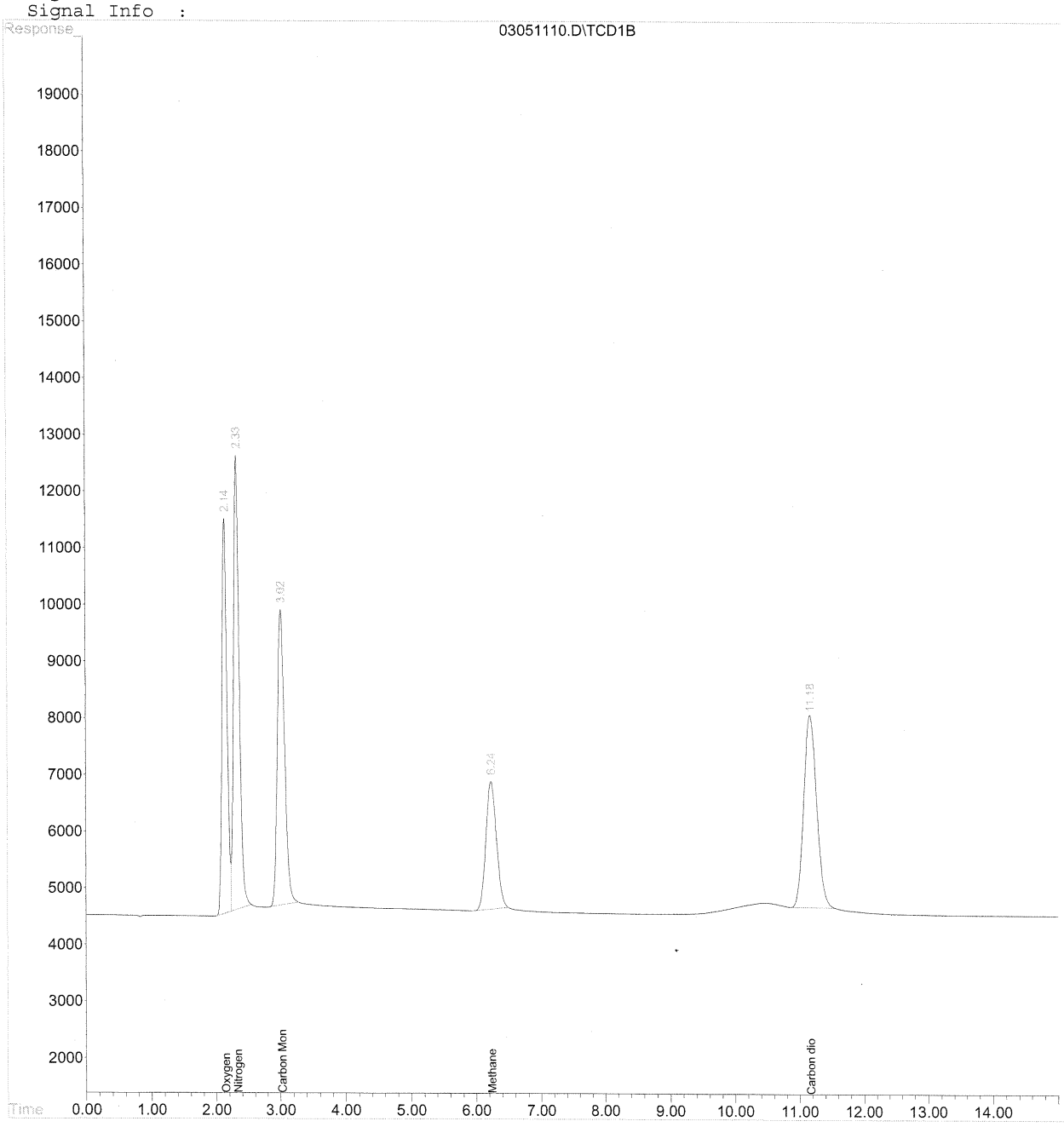
Quant Method : C:\HPCHEM\2\METHODS\030511.M (Chemstation Integrator)
Title :
Last Update : Thu May 12 16:13:25 2011
Response via : Initial Calibration
DataAcq Meth : TCD.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	380291	2.652 %
2)	Nitrogen	2.33	488166	2.834 %
3)	Carbon Monoxide	3.02	400088	2.540 %
4)	Methane	6.25	255799	1.986 %
5)	Carbon dioxide	11.18	470903	2.596 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\030511\03051110.D Vial: 1
Acq On : 5 Mar 2011 8:05 am Operator:
Sample : ICV STD 1-2 Inst : GC/TCD
Misc : ICAL ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Jun 16 9:53 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :