RTI Laboratories, Inc.

Date: *21-Oct.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705
Prime Contract: W912DY-10-D0014
Task Order: 02
Lab Order: 1110067

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 10/4/2011. Samples were received in good condition. The sample set consisted of 46 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 except as noted below:

Sample ID	4-Bromofluorobenzene
1110067-021	134%
1110067-036	55.9%

Analytical Sequence ID 43433:
- Sample ID 1110067-031DUP - - RPD for Heptane elevated due to results near or below LOQ.

RTI Laboratories, Inc.

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Task Order: 02
Lab Order: 1110067

CASE NARRATIVE

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

Analytical Sequence ID 43407:

- Sample ID 1110067-030BDUP elevated RPD result for C9-C12 Aliphatic Hydrocarbons (38.6%).

Analytical Sequence ID 43279:

- Sample ID 1110067-007BDUP - -RPD elevated for C5-C8 Aliphatic Hydrocarbons (106%).

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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

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

Signed: Charles O'Bryan

Charles O'Bryan, Director, Quality Management

Date: 10/21/2011

DBPix Evaluation

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1110067

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705/SV024

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

Samples Shipment Date: 28 SEP 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Trochas
Project Contact: Pamela Moss
Carrier/Waybill No: UPS5232317190

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

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

Special Instructions:

Possible Hazard Indentification: Non Hazard | Flammable ✓ | Skin Irritant | Poison B | Radiological | Unknown

Sample Disposal: Return to Client | Disposal by Lab ✓ | Archive (mos.)

1. Relinquished By (Signature/Affiliation): [signature] Date: 9/28/11 Time: 16:00
2. Relinquished By (Signature/Affiliation): Date: Time:
3. Relinquished By (Signature/Affiliation): Date: Time:

1. Received By (Signature/Affiliation): Christina Carradis RTI Laboratories, Inc Date: 10/04/11 Time: 9:15AM
2. Received By (Signature/Affiliation): Date: Time:
3. Received By (Signature/Affiliation): Date: Time:

Comments:

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Filt	CID	Condition On Receipt
1	[illegible]	[illegible]	[illegible]	12:07	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504				N	
2	[illegible]	[illegible]	[illegible]	12:07	1 L BOTTLE VAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	829
3	[illegible]	[illegible]	[illegible]	12:46	1 L BOTTLE VAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	823
4	[illegible]	[illegible]	[illegible]	12:46	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	13:20	1 L BOTTLE VAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	664
	[illegible]	[illegible]	[illegible]	13:20	1 L Tedlar Bag	1	None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	13:26	1 L BOTTLE VAC	1	None Required	Air Phase Petroleum Hydrocarbons by				N	808

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705/SV024

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	Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Filt	CID	Condition On Receipt
	[illegible]	[illegible]	[illegible]	13:26	1 L Tedlar Bag	1 None Required	MA DEP VOCs / TPH by TO-15 Fixed Gases by ASTM D2504			N		
5	[illegible]	[illegible]	[illegible]	13:51	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		843
	[illegible]	[illegible]	[illegible]	13:51	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
6	[illegible]	[illegible]	[illegible]	14:21	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	[illegible]	14:21	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		795
7	[illegible]	[illegible]	[illegible]	14:52	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		797
	[illegible]	[illegible]	[illegible]	14:52	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
8	[illegible]	[illegible]	[illegible]	10:23	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		749
	[illegible]	[illegible]	[illegible]	10:23	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
9	[illegible]	[illegible]	[illegible]	10:47	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		840
	[illegible]	[illegible]	[illegible]	10:47	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
10	[illegible]	[illegible]	[illegible]	11:14	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		825
	[illegible]	[illegible]	[illegible]	11:14	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
11	[illegible]	[illegible]	[illegible]	11:41	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	[illegible]	11:41	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		809
12	[illegible]	[illegible]	[illegible]	11:53	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		784
	[illegible]	[illegible]	[illegible]	11:53	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
13	[illegible]	[illegible]	[illegible]	11:05	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		804
	[illegible]	[illegible]	[illegible]	11:05	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
14	[illegible]	[illegible]	[illegible]	11:05	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		831
	[illegible]	[illegible]	[illegible]	11:05	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
15	[illegible]	[illegible]	[illegible]	10:19	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		802
	[illegible]	[illegible]	[illegible]	10:19	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
16	[illegible]	[illegible]	[illegible]	12:20	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	[illegible]	12:20	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		800
17	[illegible]	[illegible]	[illegible]	14:02	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP VOCs / TPH by TO-15			N		767
	[illegible]	[illegible]	[illegible]	14:02	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No 140705/SV024

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	Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
18	[illegible]	[illegible]	[illegible]	14:36	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	793
	[illegible]	[illegible]	[illegible]	14:36	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
19	[illegible]	[illegible]	[illegible]	15:13	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	837
	[illegible]	[illegible]	[illegible]	15:13	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
20	[illegible]	[illegible]	[illegible]	15:50	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	841
	[illegible]	[illegible]	[illegible]	15:50	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
21	[illegible]	[illegible]	[illegible]	8:39	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	8:39	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	788
22	[illegible]	[illegible]	[illegible]	9:09	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	766
	[illegible]	[illegible]	[illegible]	9:09	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
23	[illegible]	[illegible]	[illegible]	9:44	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	789
	[illegible]	[illegible]	[illegible]	9:44	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
24	[illegible]	[illegible]	[illegible]	10:21	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	806
	[illegible]	[illegible]	[illegible]	10:21	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
25	[illegible]	[illegible]	[illegible]	10:58	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	819
	[illegible]	[illegible]	[illegible]	10:58	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
26	[illegible]	[illegible]	[illegible]	13:33	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	833
	[illegible]	[illegible]	[illegible]	13:33	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
27	[illegible]	[illegible]	[illegible]	14:03	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	797
	[illegible]	[illegible]	[illegible]	14:03	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
28	[illegible]	[illegible]	[illegible]	14:03	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	839
	[illegible]	[illegible]	[illegible]	14:03	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
29	[illegible]	[illegible]	[illegible]	14:53	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	798
	[illegible]	[illegible]	[illegible]	14:53	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
30	[illegible]	[illegible]	[illegible]	15:32	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15				N	796
	[illegible]	[illegible]	[illegible]	15:32	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
31	[illegible]	[illegible]	[illegible]	16:03	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, Fixed Gases by ASTM D2504				N	818

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1110067

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705/SV024

	Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
	[illegible]	[illegible]	[illegible]	16:03	1 L BOTTLE VAC	1 None Required	VOCs / TPH by TO 15				N	
	[illegible]	[illegible]	[illegible]	9:44	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	770
32	[illegible]	[illegible]	[illegible]	9:44	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	13:43	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	801
33	[illegible]	[illegible]	[illegible]	13:43	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	14:28	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	765
34	[illegible]	[illegible]	[illegible]	14:28	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	15:01	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	20
35	[illegible]	[illegible]	[illegible]	15:01	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	15:39	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	772
36	[illegible]	[illegible]	[illegible]	15:39	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	
	[illegible]	[illegible]	[illegible]	15:39	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	790
37	[illegible]	[illegible]	[illegible]	15:39	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	08:31	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	764
38	[illegible]	[illegible]	[illegible]	08:31	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	09:16	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	27
39	[illegible]	[illegible]	[illegible]	09:16	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	14:30	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	839
40	[illegible]	[illegible]	[illegible]	14:30	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	
	[illegible]	[illegible]	[illegible]	14:44	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	716
41	[illegible]	[illegible]	[illegible]	14:44	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	844
	[illegible]	[illegible]	[illegible]	15:37	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	
42	[illegible]	[illegible]	[illegible]	15:37	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	687
	[illegible]	[illegible]	[illegible]	16:07	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	
43	[illegible]	[illegible]	[illegible]	16:07	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504	Deflated			N	832
	[illegible]	[illegible]	[illegible]	11:40	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	
44	[illegible]	[illegible]	[illegible]	11:40	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504				N	836
	[illegible]	[illegible]	[illegible]	11:40	1 L BOTTLE VAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15				N	
45												

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1110067

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No 140705/SV024
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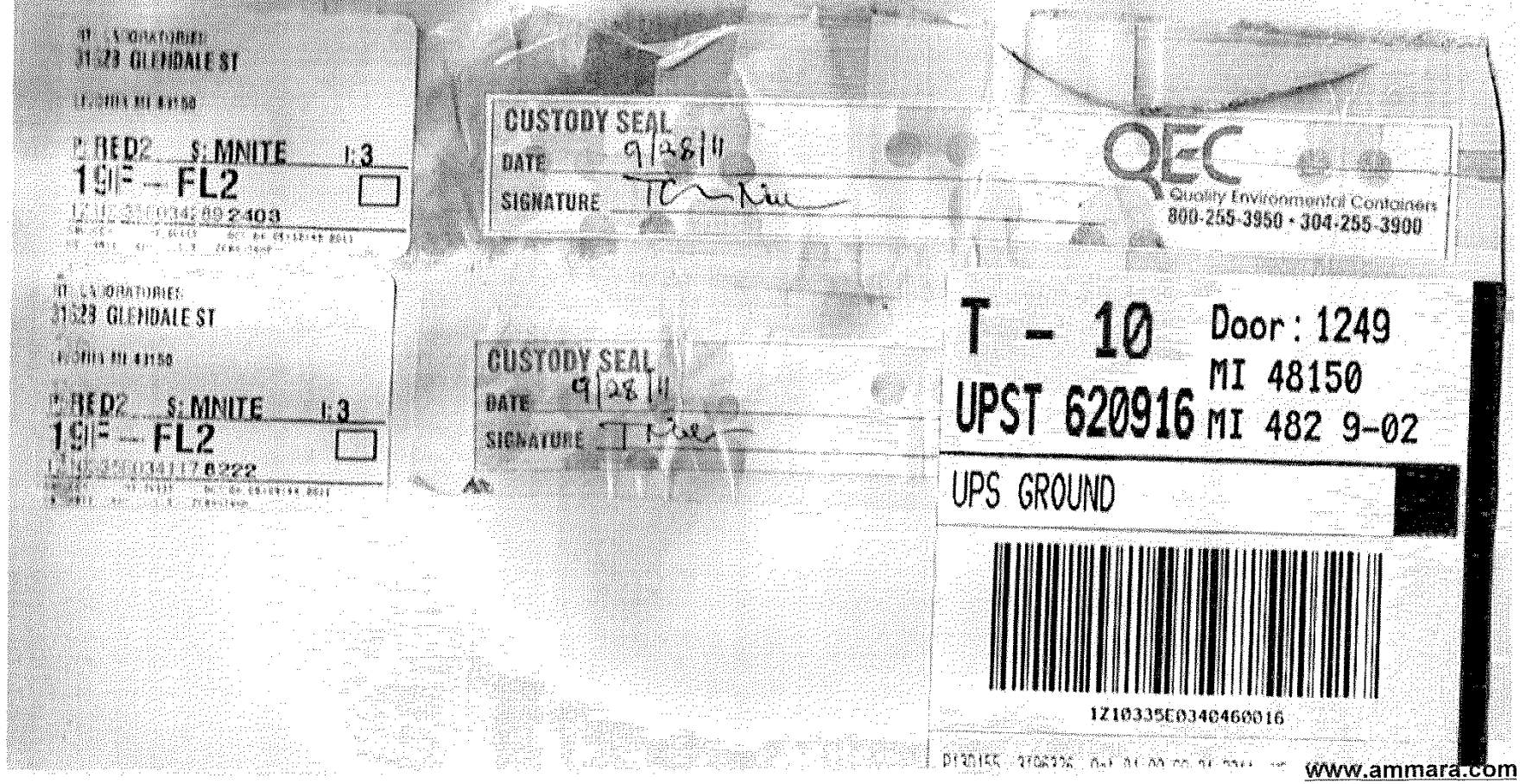
Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Filt	CID	Condition On Receipt
[illegible]	[illegible]	[illegible]	11:40	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
[illegible]	[illegible]	[illegible]	8:00	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO-15			N		776



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T - 10
Door : 1249
MI 48150
UPST 620916
UPS GROUND
1Z10335E0342304066
P130155 3196326 Oct 01 00 09 10 2011 US 6059 N
CUSTODY SEAL
DATE 9/28/11
SIGNATURE
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900
T - 10
UPST 620916
UPS GROUND
1Z10335E0342323036
P130156 3196326 Oct 01 00 01 54 2011 US 6059 N
T - 10
Door : 1249
MI 48150
UPST 620916
UPS GROUND
1Z10335E0342559390
P130155 3196326 Sep 30 23 55 45 2011 US 6059 N

RTI LABORATORIES, INC.

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

Sample Receipt Checklist

Client Name: **SHA04**

Date and Time Received: **10/4/2011 9:15:00 AM**

Work Order Number **1110067** RcptNo: **1**

Received by: **Armando Flores**

Completed by:

Reviewed by:

Completed Date: 10/4/2011 3:18:39 PM

Reviewed Date:

Carrier name: UPS

Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐	Not Present	☐
Are matrices correctly identified on Chain of custody?	Yes ☑	No ☐		
Is it clear what analyses were requested?	Yes ☑	No ☐		
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present	☑
Samples in proper container/bottle?	Yes ☑	No ☐		
Were correct preservatives used and noted?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
Were container lables complete (ID, Pres, Date)?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Was an attempt made to cool the samples?	Yes ☑	No ☐		
All samples received at a temp. of > 0° C to 6.0° C?	Yes ☐	No ☑		
Response when temperature is outside of range:	Not required			
Preservative added to bottles:				
Sample Temp. taken and recorded upon receipt?	Yes ☐	No ☑	To	°C
Water - Were bubbles absent in VOC vials?	Yes ☐	No ☐	No Vials	☑
Water - Was there Chlorine Present?	Yes ☐	No ☐	NA	☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	No Water	☑
Are Samples considered acceptable?	Yes ☑	No ☐		
Custody Seals present?	Yes ☐	No ☑		
Traffic Report or Packing Lists present?	Yes ☐	No ☑		
Airbill or Sticker?	Air Bill ☑	Sticker ☐	Not Present	☐
Airbill No:	1Z10335E0342559390			
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
1110067-001A	Container-01 of 01	Bottle				
1110067-001B	Container-01 of 01	Bottle				
1110067-002A	Container-01 of 01	Bottle				
1110067-002B	Container-01 of 01	Bottle				
1110067-003A	Container-01 of 01	Bottle				
1110067-003B	Container-01 of 01	Bottle				
1110067-004A	Container-01 of 01	Bottle				
1110067-004B	Container-01 of 01	Bottle				
1110067-005A	Container-01 of 01	Bottle				
1110067-005B	Container-01 of 01	Bottle				
1110067-006A	Container-01 of 01	Bottle				
1110067-006B	Container-01 of 01	Bottle				
1110067-007A	Container-01 of 01	Bottle				
1110067-007B	Container-01 of 01	Bottle				
1110067-008A	Container-01 of 01	Bottle				
1110067-008B	Container-01 of 01	Bottle				
1110067-009A	Container-01 of 01	Bottle				
1110067-009B	Container-01 of 01	Bottle				
1110067-010A	Container-01 of 01	Bottle				
1110067-010B	Container-01 of 01	Bottle				
1110067-011A	Container-01 of 01	Bottle				
1110067-011B	Container-01 of 01	Bottle				
1110067-012A	Container-01 of 01	Bottle				
1110067-012B	Container-01 of 01	Bottle				
1110067-013A	Container-01 of 01	Bottle				
1110067-013B	Container-01 of 01	Bottle				
1110067-014A	Container-01 of 01	Bottle				
1110067-014B	Container-01 of 01	Bottle				
1110067-015A	Container-01 of 01	Bottle				
1110067-015B	Container-01 of 01	Bottle				
1110067-016A	Container-01 of 01	Bottle				
1110067-016B	Container-01 of 01	Bottle				
1110067-017A	Container-01 of 01	Bottle				
1110067-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1110067-018A	Container-01 of 01	Bottle				
1110067-018B	Container-01 of 01	Bottle				
1110067-019A	Container-01 of 01	Bottle				
1110067-019B	Container-01 of 01	Bottle				
1110067-020A	Container-01 of 01	Bottle				
1110067-020B	Container-01 of 01	Bottle				
1110067-021A	Container-01 of 01	Bottle				
1110067-021B	Container-01 of 01	Bottle				
1110067-022A	Container-01 of 01	Bottle				
1110067-022B	Container-01 of 01	Bottle				
1110067-023A	Container-01 of 01	Bottle				
1110067-023B	Container-01 of 01	Bottle				
1110067-024A	Container-01 of 01	Bottle				
1110067-024B	Container-01 of 01	Bottle				
1110067-025A	Container-01 of 01	Bottle				
1110067-025B	Container-01 of 01	Bottle				
1110067-026A	Container-01 of 01	Bottle				
1110067-026B	Container-01 of 01	Bottle				
1110067-027A	Container-01 of 01	Bottle				
1110067-027B	Container-01 of 01	Bottle				
1110067-028A	Container-01 of 01	Bottle				
1110067-028B	Container-01 of 01	Bottle				
1110067-029A	Container-01 of 01	Bottle				
1110067-029B	Container-01 of 01	Bottle				
1110067-030A	Container-01 of 01	Bottle				
1110067-030B	Container-01 of 01	Bottle				
1110067-031A	Container-01 of 01	Bottle				
1110067-031B	Container-01 of 01	Bottle				
1110067-032A	Container-01 of 01	Bottle				
1110067-032B	Container-01 of 01	Bottle				
1110067-033A	Container-01 of 01	Bottle				
1110067-033B	Container-01 of 01	Bottle				
1110067-034A	Container-01 of 01	Bottle				
1110067-034B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1110067-035A	Container-01 of 01	Bottle				
1110067-035B	Container-01 of 01	Bottle				
1110067-036A	Container-01 of 01	Bottle				
1110067-036B	Container-01 of 01	Bottle				
1110067-037A	Container-01 of 01	Bottle				
1110067-037B	Container-01 of 01	Bottle				
1110067-038A	Container-01 of 01	Bottle				
1110067-038B	Container-01 of 01	Bottle				
1110067-039A	Container-01 of 01	Bottle				
1110067-039B	Container-01 of 01	Bottle				
1110067-040A	Container-01 of 01	Bottle				
1110067-040B	Container-01 of 01	Bottle				
1110067-041A	Container-01 of 01	Bottle				
1110067-041B	Container-01 of 01	Bottle				
1110067-042A	Container-01 of 01	Bottle				
1110067-042B	Container-01 of 01	Bottle				
1110067-043B	Container-01 of 01	Bottle				
1110067-044A	Container-01 of 01	Bottle				
1110067-044B	Container-01 of 01	Bottle				
1110067-045A	Container-01 of 01	Bottle				
1110067-045B	Container-01 of 01	Bottle				
1110067-046A	Container-01 of 01	Bottle				

Adjusted? _____ Checked by _____

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

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

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:
Emailing client to inform of deflated Tedlar bag.

Comments:
VAO699 Tedlar bag deflated. 10/4/11 CC

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: 1110067

21-Oct-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1110067-001	VAO384		9/20/2011 12:07:00 PM	10/4/2011 9:15:00 AM	Air
1110067-001	VAO384		9/20/2011 12:07:00 PM	10/4/2011 9:15:00 AM	Air
1110067-002	VAO385		9/20/2011 12:46:00 PM	10/4/2011 9:15:00 AM	Air
1110067-002	VAO385		9/20/2011 12:46:00 PM	10/4/2011 9:15:00 AM	Air
1110067-003	VAO386		9/20/2011 1:20:00 PM	10/4/2011 9:15:00 AM	Air
1110067-003	VAO386		9/20/2011 1:20:00 PM	10/4/2011 9:15:00 AM	Air
1110067-004	VAO387		9/22/2011 1:26:00 PM	10/4/2011 9:15:00 AM	Air
1110067-004	VAO387		9/22/2011 1:26:00 PM	10/4/2011 9:15:00 AM	Air
1110067-005	VAO388		9/22/2011 1:51:00 PM	10/4/2011 9:15:00 AM	Air
1110067-005	VAO388		9/22/2011 1:51:00 PM	10/4/2011 9:15:00 AM	Air
1110067-006	VAO389		9/22/2011 2:21:00 PM	10/4/2011 9:15:00 AM	Air
1110067-006	VAO389		9/22/2011 2:21:00 PM	10/4/2011 9:15:00 AM	Air
1110067-007	VAO390		9/22/2011 2:52:00 PM	10/4/2011 9:15:00 AM	Air
1110067-007	VAO390		9/22/2011 2:52:00 PM	10/4/2011 9:15:00 AM	Air
1110067-008	VAO391		9/22/2011 10:23:00 AM	10/4/2011 9:15:00 AM	Air
1110067-008	VAO391		9/22/2011 10:23:00 AM	10/4/2011 9:15:00 AM	Air
1110067-009	VAO392		9/22/2011 10:47:00 AM	10/4/2011 9:15:00 AM	Air
1110067-009	VAO392		9/22/2011 10:47:00 AM	10/4/2011 9:15:00 AM	Air
1110067-010	VAO393		9/22/2011 11:14:00 AM	10/4/2011 9:15:00 AM	Air
1110067-010	VAO393		9/22/2011 11:14:00 AM	10/4/2011 9:15:00 AM	Air
1110067-011	VAO394		9/22/2011 11:41:00 AM	10/4/2011 9:15:00 AM	Air
1110067-011	VAO394		9/22/2011 11:41:00 AM	10/4/2011 9:15:00 AM	Air
1110067-012	VAO403		9/27/2011 11:53:00 AM	10/4/2011 9:15:00 AM	Air
1110067-012	VAO403		9/27/2011 11:53:00 AM	10/4/2011 9:15:00 AM	Air
1110067-013	VAO404		9/27/2011 11:05:00 AM	10/4/2011 9:15:00 AM	Air
1110067-013	VAO404		9/27/2011 11:05:00 AM	10/4/2011 9:15:00 AM	Air
1110067-014	VAO405		9/27/2011 11:05:00 AM	10/4/2011 9:15:00 AM	Air
1110067-014	VAO405		9/27/2011 11:05:00 AM	10/4/2011 9:15:00 AM	Air
1110067-015	VAO406		9/27/2011 10:19:00 AM	10/4/2011 9:15:00 AM	Air
1110067-015	VAO406		9/27/2011 10:19:00 AM	10/4/2011 9:15:00 AM	Air
1110067-016	VAO407		9/27/2011 12:20:00 PM	10/4/2011 9:15:00 AM	Air
1110067-016	VAO407		9/27/2011 12:20:00 PM	10/4/2011 9:15:00 AM	Air
1110067-017	VAO408		9/27/2011 2:02:00 PM	10/4/2011 9:15:00 AM	Air
1110067-017	VAO408		9/27/2011 2:02:00 PM	10/4/2011 9:15:00 AM	Air

Original

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: 1110067

21-Oct-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1110067-018	VAO409		9/27/2011 2:36:00 PM	10/4/2011 9:15:00 AM	Air
1110067-018	VAO409		9/27/2011 2:36:00 PM	10/4/2011 9:15:00 AM	Air
1110067-019	VAO410		9/27/2011 3:13:00 PM	10/4/2011 9:15:00 AM	Air
1110067-019	VAO410		9/27/2011 3:13:00 PM	10/4/2011 9:15:00 AM	Air
1110067-020	VAO411		9/27/2011 3:50:00 PM	10/4/2011 9:15:00 AM	Air
1110067-020	VAO411		9/27/2011 3:50:00 PM	10/4/2011 9:15:00 AM	Air
1110067-021	VAO432		9/26/2011 8:39:00 AM	10/4/2011 9:15:00 AM	Air
1110067-021	VAO432		9/26/2011 8:39:00 AM	10/4/2011 9:15:00 AM	Air
1110067-022	VAO433		9/26/2011 9:09:00 AM	10/4/2011 9:15:00 AM	Air
1110067-022	VAO433		9/26/2011 9:09:00 AM	10/4/2011 9:15:00 AM	Air
1110067-023	VAO434		9/26/2011 9:44:00 AM	10/4/2011 9:15:00 AM	Air
1110067-023	VAO434		9/26/2011 9:44:00 AM	10/4/2011 9:15:00 AM	Air
1110067-024	VAO435		9/26/2011 10:21:00 AM	10/4/2011 9:15:00 AM	Air
1110067-024	VAO435		9/26/2011 10:21:00 AM	10/4/2011 9:15:00 AM	Air
1110067-025	VAO454		9/26/2011 10:58:00 AM	10/4/2011 9:15:00 AM	Air
1110067-025	VAO454		9/26/2011 10:58:00 AM	10/4/2011 9:15:00 AM	Air
1110067-026	VAO592		9/21/2011 1:33:00 PM	10/4/2011 9:15:00 AM	Air
1110067-026	VAO592		9/21/2011 1:33:00 PM	10/4/2011 9:15:00 AM	Air
1110067-027	VAO593		9/21/2011 2:03:00 PM	10/4/2011 9:15:00 AM	Air
1110067-027	VAO593		9/21/2011 2:03:00 PM	10/4/2011 9:15:00 AM	Air
1110067-028	VAO594		9/21/2011 2:03:00 PM	10/4/2011 9:15:00 AM	Air
1110067-028	VAO594		9/21/2011 2:03:00 PM	10/4/2011 9:15:00 AM	Air
1110067-029	VAO595		9/21/2011 2:53:00 PM	10/4/2011 9:15:00 AM	Air
1110067-029	VAO595		9/21/2011 2:53:00 PM	10/4/2011 9:15:00 AM	Air
1110067-030	VAO596		9/21/2011 3:32:00 PM	10/4/2011 9:15:00 AM	Air
1110067-030	VAO596		9/21/2011 3:32:00 PM	10/4/2011 9:15:00 AM	Air
1110067-031	VAO597		9/21/2011 4:08:00 PM	10/4/2011 9:15:00 AM	Air
1110067-031	VAO597		9/21/2011 4:08:00 PM	10/4/2011 9:15:00 AM	Air
1110067-032	VAO598		9/22/2011 9:44:00 AM	10/4/2011 9:15:00 AM	Air
1110067-032	VAO598		9/22/2011 9:44:00 AM	10/4/2011 9:15:00 AM	Air
1110067-033	VAO599		9/26/2011 1:43:00 PM	10/4/2011 9:15:00 AM	Air
1110067-033	VAO599		9/26/2011 1:43:00 PM	10/4/2011 9:15:00 AM	Air
1110067-034	VAO600		9/26/2011 2:28:00 PM	10/4/2011 9:15:00 AM	Air
1110067-034	VAO600		9/26/2011 2:28:00 PM	10/4/2011 9:15:00 AM	Air

Original

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: 1110067

21-Oct-11

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

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1110067-035	VAO601		9/26/2011 3:01:00 PM	10/4/2011 9:15:00 AM	Air
1110067-035	VAO601		9/26/2011 3:01:00 PM	10/4/2011 9:15:00 AM	Air
1110067-036	VAO602		9/26/2011 3:39:00 PM	10/4/2011 9:15:00 AM	Air
1110067-036	VAO602		9/26/2011 3:39:00 PM	10/4/2011 9:15:00 AM	Air
1110067-037	VAO603		9/26/2011 3:39:00 PM	10/4/2011 9:15:00 AM	Air
1110067-037	VAO603		9/26/2011 3:39:00 PM	10/4/2011 9:15:00 AM	Air
1110067-038	VAO604		9/27/2011 8:31:00 AM	10/4/2011 9:15:00 AM	Air
1110067-038	VAO604		9/27/2011 8:31:00 AM	10/4/2011 9:15:00 AM	Air
1110067-039	VAO605		9/27/2011 9:16:00 AM	10/4/2011 9:15:00 AM	Air
1110067-039	VAO605		9/27/2011 9:16:00 AM	10/4/2011 9:15:00 AM	Air
1110067-040	VAO696		9/20/2011 2:30:00 PM	10/4/2011 9:15:00 AM	Air
1110067-040	VAO696		9/20/2011 2:30:00 PM	10/4/2011 9:15:00 AM	Air
1110067-041	VAO697		9/20/2011 2:44:00 PM	10/4/2011 9:15:00 AM	Air
1110067-041	VAO697		9/20/2011 2:44:00 PM	10/4/2011 9:15:00 AM	Air
1110067-042	VAO698		9/20/2011 3:37:00 PM	10/4/2011 9:15:00 AM	Air
1110067-042	VAO698		9/20/2011 3:37:00 PM	10/4/2011 9:15:00 AM	Air
1110067-043	VAO699		9/20/2011 4:07:00 PM	10/4/2011 9:15:00 AM	Air
1110067-043	VAO699		9/20/2011 4:07:00 PM	10/4/2011 9:15:00 AM	Air
1110067-044	VAO700		9/20/2011 11:40:00 AM	10/4/2011 9:15:00 AM	Air
1110067-044	VAO700		9/20/2011 11:40:00 AM	10/4/2011 9:15:00 AM	Air
1110067-045	VAO701		9/20/2011 11:40:00 AM	10/4/2011 9:15:00 AM	Air
1110067-045	VAO701		9/20/2011 11:40:00 AM	10/4/2011 9:15:00 AM	Air
1110067-046	VA8040-TB		9/20/2011 8:00:00 AM	10/4/2011 9:15:00 AM	Air

RTI LABORATORIES, INC.

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

DATES REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-001A	VAO384	9/20/2011 12:07:00 PM	Air	Noncondensable Gases and Light Hydrocarbons			10/17/2011 1:28:00 PM
1110067-001B				Air-Phase Petroleum Hydrocarbons			10/8/2011 3:19:00 AM
				Volatile Organic Compounds			10/14/2011 5:27:00 AM
1110067-002A	VAO385	9/20/2011 12:46:00 PM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 1:55:00 PM
1110067-002B				Air-Phase Petroleum Hydrocarbons			10/8/2011 4:05:00 AM
				Volatile Organic Compounds			10/14/2011 6:11:00 AM
1110067-003A	VAO386	9/20/2011 1:20:00 PM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 2:25:00 PM
1110067-003B				Air-Phase Petroleum Hydrocarbons			10/6/2011 3:18:00 AM
				Volatile Organic Compounds			10/14/2011 6:55:00 AM
1110067-004A	VAO387	9/22/2011 1:26:00 PM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 2:45:00 PM
1110067-004B				Air-Phase Petroleum Hydrocarbons			10/6/2011 4:07:00 AM
				Volatile Organic Compounds			10/13/2011 10:45:00 AM
1110067-005A	VAO388	9/22/2011 1:51:00 PM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 3:28:00 PM
1110067-005B				Air-Phase Petroleum Hydrocarbons			10/6/2011 4:56:00 AM
				Volatile Organic Compounds			10/13/2011 11:31:00 AM
1110067-006A	VAO389	9/22/2011 2:21:00 PM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 12:18:00 PM
1110067-006B				Air-Phase Petroleum Hydrocarbons			10/6/2011 5:45:00 AM
				Volatile Organic Compounds			10/13/2011 12:19:00 PM
1110067-007A	VAO390	9/22/2011 2:52:00 PM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 12:42:00 PM
1110067-007B				Air-Phase Petroleum Hydrocarbons			10/6/2011 7:36:00 AM
				Air-Phase Petroleum Hydrocarbons			10/5/2011 9:29:00 PM

Original

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WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-007B	VAO390	9/22/2011 2:52:00 PM	Air	Volatile Organic Compounds			10/13/2011 1:06:00 PM
1110067-008A	VAO391	9/22/2011 10:23:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 1:02:00 PM
1110067-008B				Air-Phase Petroleum Hydrocarbons			10/6/2011 8:25:00 AM
				Volatile Organic Compounds			10/13/2011 6:45:00 AM
1110067-009A	VAO392	9/22/2011 10:47:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 1:20:00 PM
1110067-009B				Air-Phase Petroleum Hydrocarbons			10/6/2011 9:14:00 AM
				Volatile Organic Compounds			10/13/2011 7:32:00 AM
1110067-010A	VAO393	9/22/2011 11:14:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 1:47:00 PM
1110067-010B				Air-Phase Petroleum Hydrocarbons			10/6/2011 12:18:00 AM
				Volatile Organic Compounds			10/13/2011 8:13:00 AM
1110067-011A	VAO394	9/22/2011 11:41:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 2:40:00 PM
1110067-011B				Air-Phase Petroleum Hydrocarbons			10/6/2011 1:00:00 AM
				Volatile Organic Compounds			10/13/2011 9:57:00 AM
1110067-012A	VAO403	9/27/2011 11:53:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 3:00:00 PM
1110067-012B				Air-Phase Petroleum Hydrocarbons			10/15/2011 2:41:00 AM
				Volatile Organic Compounds			10/14/2011 3:53:00 PM
				Volatile Organic Compounds			10/14/2011 3:12:00 PM
1110067-013A	VAO404	9/27/2011 11:05:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 3:24:00 PM
1110067-013B				Air-Phase Petroleum Hydrocarbons			10/12/2011 4:31:00 AM
				Volatile Organic Compounds			10/14/2011 1:47:00 PM
1110067-014A	VAO405			Noncondensable Gases and Light Hydrocarbons			10/18/2011 3:44:00 PM

Original

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DATES REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-014B	VAO405	9/27/2011 11:05:00 AM	Air	Air-Phase Petroleum Hydrocarbons			10/13/2011 1:30:00 PM
				Volatile Organic Compounds			10/14/2011 2:28:00 PM
1110067-015A	VAO406	9/27/2011 10:19:00 AM		Noncondensable Gases and Light Hydrocarbons			10/18/2011 4:08:00 PM
1110067-015B				Air-Phase Petroleum Hydrocarbons			10/13/2011 5:09:00 PM
				Volatile Organic Compounds			10/14/2011 1:06:00 PM
1110067-016A	VAO407	9/27/2011 12:20:00 PM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 3:53:00 PM
1110067-016B				Air-Phase Petroleum Hydrocarbons			10/6/2011 11:20:00 AM
				Volatile Organic Compounds			10/19/2011 5:37:00 AM
1110067-017A	VAO408	9/27/2011 2:02:00 PM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 4:12:00 PM
1110067-017B				Air-Phase Petroleum Hydrocarbons			10/17/2011 2:44:00 PM
				Volatile Organic Compounds			10/19/2011 6:18:00 AM
1110067-018A	VAO409	9/27/2011 2:36:00 PM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 4:32:00 PM
1110067-018B				Air-Phase Petroleum Hydrocarbons			10/17/2011 3:27:00 PM
				Volatile Organic Compounds			10/19/2011 7:00:00 AM
1110067-019A	VAO410	9/27/2011 3:13:00 PM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 5:04:00 PM
1110067-019B				Air-Phase Petroleum Hydrocarbons			10/6/2011 5:22:00 PM
				Volatile Organic Compounds			10/19/2011 7:41:00 AM
1110067-020A	VAO411	9/27/2011 3:50:00 PM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 5:33:00 PM
1110067-020B				Air-Phase Petroleum Hydrocarbons			10/6/2011 6:04:00 PM
				Volatile Organic Compounds			10/19/2011 9:05:00 AM
1110067-021A	VAO432	9/26/2011 8:39:00 AM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 5:57:00 PM

Original

RTI LABORATORIES, INC.

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

DATES REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-021B	VAO432	9/26/2011 8:39:00 AM	Air	Air-Phase Petroleum Hydrocarbons			10/7/2011 10:14:00 AM
				Volatile Organic Compounds			10/13/2011 1:53:00 PM
1110067-022A	VAO433	9/26/2011 9:09:00 AM		Noncondensable Gases and Light Hydrocarbons			10/19/2011 6:21:00 PM
1110067-022B				Air-Phase Petroleum Hydrocarbons			10/12/2011 12:47:00 AM
				Volatile Organic Compounds			10/13/2011 2:41:00 PM
1110067-023A	VAO434	9/26/2011 9:44:00 AM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 1:10:00 PM
1110067-023B				Air-Phase Petroleum Hydrocarbons			10/12/2011 1:30:00 AM
				Volatile Organic Compounds			10/13/2011 3:22:00 PM
1110067-024A	VAO435	9/26/2011 10:21:00 AM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 1:37:00 PM
1110067-024B				Air-Phase Petroleum Hydrocarbons			10/7/2011 11:04:00 AM
				Volatile Organic Compounds			10/17/2011 5:28:00 PM
				Volatile Organic Compounds			10/19/2011 9:46:00 AM
1110067-025A	VAO454	9/26/2011 10:58:00 AM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 2:17:00 PM
1110067-025B				Air-Phase Petroleum Hydrocarbons			10/12/2011 2:13:00 AM
				Air-Phase Petroleum Hydrocarbons			10/6/2011 9:37:00 PM
				Volatile Organic Compounds			10/17/2011 6:09:00 PM
1110067-026A	VAO592	9/21/2011 1:33:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 3:03:00 PM
1110067-026B				Air-Phase Petroleum Hydrocarbons			10/11/2011 7:45:00 PM
				Volatile Organic Compounds			10/13/2011 12:44:00 AM
1110067-027A	VAO593	9/21/2011 2:03:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 3:23:00 PM
1110067-027B				Air-Phase Petroleum Hydrocarbons			10/11/2011 8:34:00 PM

Original

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DATES REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-027B	VAO593	9/21/2011 2:03:00 PM	Air	Volatile Organic Compounds			10/13/2011 1:32:00 AM
1110067-028A	VAO594			Noncondensable Gases and Light Hydrocarbons			10/20/2011 3:48:00 PM
1110067-028B				Air-Phase Petroleum Hydrocarbons			10/11/2011 9:23:00 PM
				Volatile Organic Compounds			10/13/2011 2:19:00 AM
1110067-029A	VAO595	9/21/2011 2:53:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 4:18:00 PM
1110067-029B				Air-Phase Petroleum Hydrocarbons			10/11/2011 10:13:00 PM
				Volatile Organic Compounds			10/13/2011 3:06:00 AM
1110067-030A	VAO596	9/21/2011 3:32:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 4:41:00 PM
1110067-030B				Air-Phase Petroleum Hydrocarbons			10/11/2011 11:02:00 PM
				Volatile Organic Compounds			10/13/2011 3:54:00 AM
1110067-031A	VAO597	9/21/2011 4:08:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 5:04:00 PM
1110067-031B				Air-Phase Petroleum Hydrocarbons			10/7/2011 2:33:00 AM
				Volatile Organic Compounds			10/13/2011 4:34:00 AM
1110067-032A	VAO598	9/22/2011 9:44:00 AM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 5:39:00 PM
1110067-032B				Air-Phase Petroleum Hydrocarbons			10/7/2011 9:23:00 AM
				Volatile Organic Compounds			10/13/2011 5:57:00 AM
1110067-033A	VAO599	9/26/2011 1:43:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 6:50:00 PM
1110067-033B				Air-Phase Petroleum Hydrocarbons			10/12/2011 3:02:00 AM
				Volatile Organic Compounds			10/13/2011 9:11:00 PM
1110067-034A	VAO600	9/26/2011 2:28:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 7:14:00 PM
1110067-034B				Air-Phase Petroleum Hydrocarbons			10/7/2011 5:55:00 PM

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DATES REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-034B	VAO600	9/26/2011 2:28:00 PM	Air	Volatile Organic Compounds			10/13/2011 9:53:00 PM
				Volatile Organic Compounds			10/17/2011 6:52:00 PM
1110067-035A	VAO601	9/26/2011 3:01:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 7:42:00 PM
1110067-035B				Air-Phase Petroleum Hydrocarbons			10/8/2011 4:55:00 AM
				Volatile Organic Compounds			10/13/2011 11:25:00 PM
1110067-036A	VAO602	9/26/2011 3:39:00 PM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 8:00:00 PM
1110067-036B				Air-Phase Petroleum Hydrocarbons			10/8/2011 5:45:00 AM
				Air-Phase Petroleum Hydrocarbons			10/7/2011 7:22:00 PM
				Volatile Organic Compounds			10/14/2011 12:19:00 AM
1110067-037A	VAO603			Noncondensable Gases and Light Hydrocarbons			10/20/2011 8:20:00 PM
1110067-037B				Air-Phase Petroleum Hydrocarbons			10/8/2011 6:34:00 AM
				Volatile Organic Compounds			10/14/2011 1:06:00 AM
1110067-038A	VAO604	9/27/2011 8:31:00 AM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 8:39:00 PM
1110067-038B				Air-Phase Petroleum Hydrocarbons			10/7/2011 9:32:00 PM
				Volatile Organic Compounds			10/14/2011 11:41:00 AM
1110067-039A	VAO605	9/27/2011 9:16:00 AM		Noncondensable Gases and Light Hydrocarbons			10/20/2011 8:57:00 PM
1110067-039B				Air-Phase Petroleum Hydrocarbons			10/7/2011 10:16:00 PM
				Volatile Organic Compounds			10/14/2011 12:22:00 PM
1110067-040A	VAO696	9/20/2011 2:30:00 PM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 3:58:00 PM
1110067-040B				Air-Phase Petroleum Hydrocarbons			10/8/2011 11:25:00 AM
				Volatile Organic Compounds			10/14/2011 9:37:00 AM

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DATES REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1110067-041A	VAO697	9/20/2011 2:44:00 PM	Air	Noncondensable Gases and Light Hydrocarbons			10/17/2011 4:19:00 PM
1110067-041B				Air-Phase Petroleum Hydrocarbons			10/11/2011 6:55:00 PM
				Volatile Organic Compounds			10/14/2011 10:19:00 AM
1110067-042A	VAO698	9/20/2011 3:37:00 PM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 4:38:00 PM
1110067-042B				Air-Phase Petroleum Hydrocarbons			10/8/2011 12:26:00 AM
				Volatile Organic Compounds			10/14/2011 11:01:00 AM
1110067-043B	VAO699	9/20/2011 4:07:00 PM		Air-Phase Petroleum Hydrocarbons			10/8/2011 12:11:00 PM
				Volatile Organic Compounds			10/12/2011 11:57:00 PM
1110067-044A	VAO700	9/20/2011 11:40:00 AM		Noncondensable Gases and Light Hydrocarbons			10/17/2011 5:03:00 PM
1110067-044B				Air-Phase Petroleum Hydrocarbons			10/8/2011 1:52:00 AM
				Volatile Organic Compounds			10/11/2011 4:51:00 PM
1110067-045A	VAO701			Noncondensable Gases and Light Hydrocarbons			10/17/2011 5:22:00 PM
1110067-045B				Air-Phase Petroleum Hydrocarbons			10/8/2011 2:36:00 AM
				Volatile Organic Compounds			10/11/2011 5:35:00 PM
1110067-046A	VA8040-TB	9/20/2011 8:00:00 AM		Volatile Organic Compounds			10/11/2011 4:07:00 PM

Original

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 12:07:00 PM

Project: Kirtland AFB

Lab ID: 1110067-001 **Matrix:** AIR

Client Sample ID VAO384

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.2	0.10		%	1	10/17/2011 1:28:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 1:28:00 PM
Methane	ND	0.50		%	1	10/17/2011 1:28:00 PM
Nitrogen	82	0.10		%	1	10/17/2011 1:28:00 PM
Oxygen	12	0.10		%	1	10/17/2011 1:28:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,3-Butadiene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
2-Butanone	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
2-Hexanone	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Acetone	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Benzene	250,000	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Benzyl chloride	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Bromodichloromethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Bromoform	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Bromomethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Carbon disulfide	ND	20,000		ppbv	20000	10/14/2011 5:27:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 12:07:00 PM

Project: Kirtland AFB

Lab ID: 1110067-001 **Matrix:** AIR

Client Sample ID VAO384

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Chlorobenzene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Chloroethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Chloroform	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Chloromethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Cyclohexane	900,000	40,000		ppbv	20000	10/14/2011 5:27:00 AM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Ethyl acetate	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Ethylbenzene	ND	40,000		ppbv	20000	10/14/2011 5:27:00 AM
Heptane	370,000	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/14/2011 5:27:00 AM
m,p-Xylene	27,000	40,000	J	ppbv	20000	10/14/2011 5:27:00 AM
Methylene chloride	ND	100,000		ppbv	20000	10/14/2011 5:27:00 AM
Naphthalene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
n-Hexane	1,000,000	40,000		ppbv	20000	10/14/2011 5:27:00 AM
o-Xylene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Propylene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Styrene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Tetrachloroethene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Toluene	240,000	20,000		ppbv	20000	10/14/2011 5:27:00 AM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Trichloroethene	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Vinyl acetate	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Vinyl chloride	ND	20,000		ppbv	20000	10/14/2011 5:27:00 AM
Xylenes, Total	27,000	60,000	J	ppbv	20000	10/14/2011 5:27:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	20000	10/14/2011 5:27:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 12:07:00 PM

Project: Kirtland AFB

Lab ID: 1110067-001 **Matrix:** AIR

Client Sample ID VAO384

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	24,000,000	2,300,000		µg/m³	20000	10/8/2011 3:19:00 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	10/8/2011 3:19:00 AM
C9-C12 Aliphatic Hydrocarbons	1,000,000	3,800,000	J	µg/m³	20000	10/8/2011 3:19:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	20000	10/8/2011 3:19:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 12:46:00 PM

Project: Kirtland AFB

Lab ID: 1110067-002 **Matrix:** AIR

Client Sample ID VAO385

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.62	0.10		%	1	10/17/2011 1:55:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 1:55:00 PM
Methane	ND	0.50		%	1	10/17/2011 1:55:00 PM
Nitrogen	78	0.10		%	1	10/17/2011 1:55:00 PM
Oxygen	20	0.10		%	1	10/17/2011 1:55:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,3-Butadiene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
2-Butanone	ND	800		ppbv	800	10/14/2011 6:11:00 AM
2-Hexanone	ND	800		ppbv	800	10/14/2011 6:11:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Acetone	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Benzene	23,000	800		ppbv	800	10/14/2011 6:11:00 AM
Benzyl chloride	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Bromodichloromethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Bromoform	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Bromomethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Carbon disulfide	ND	800		ppbv	800	10/14/2011 6:11:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 12:46:00 PM

Project: Kirtland AFB

Lab ID: 1110067-002 **Matrix:** AIR

Client Sample ID VAO385

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Chlorobenzene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Chlorodibromomethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Chloroethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Chloroform	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Chloromethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Cyclohexane	42,000	1,600		ppbv	800	10/14/2011 6:11:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Ethyl acetate	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Ethylbenzene	ND	1,600		ppbv	800	10/14/2011 6:11:00 AM
Heptane	40,000	800		ppbv	800	10/14/2011 6:11:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/14/2011 6:11:00 AM
m,p-Xylene	3,400	1,600		ppbv	800	10/14/2011 6:11:00 AM
Methylene chloride	ND	4,000		ppbv	800	10/14/2011 6:11:00 AM
Naphthalene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
n-Hexane	28,000	1,600		ppbv	800	10/14/2011 6:11:00 AM
o-Xylene	1,100	800		ppbv	800	10/14/2011 6:11:00 AM
Propylene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Styrene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Tetrachloroethene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Tetrahydrofuran	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Toluene	40,000	800		ppbv	800	10/14/2011 6:11:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Trichloroethene	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Vinyl acetate	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Vinyl chloride	ND	800		ppbv	800	10/14/2011 6:11:00 AM
Xylenes, Total	4,400	2,400		ppbv	800	10/14/2011 6:11:00 AM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	800	10/14/2011 6:11:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 12:46:00 PM

Project: Kirtland AFB

Lab ID: 1110067-002 **Matrix:** AIR

Client Sample ID VAO385

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	10/8/2011 4:05:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	10/8/2011 4:05:00 AM
C9-C12 Aliphatic Hydrocarbons	200,000	150,000		µg/m³	800	10/8/2011 4:05:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	800	10/8/2011 4:05:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 1:20:00 PM

Project: Kirtland AFB

Lab ID: 1110067-003 **Matrix:** AIR

Client Sample ID VAO386

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.49	0.10		%	1	10/17/2011 2:25:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 2:25:00 PM
Methane	ND	0.50		%	1	10/17/2011 2:25:00 PM
Nitrogen	79	0.10		%	1	10/17/2011 2:25:00 PM
Oxygen	20	0.10		%	1	10/17/2011 2:25:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,1-Dichloroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,1-Dichloroethene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,2-Dibromoethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,2-Dichloroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,2-Dichloropropane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,3-Butadiene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
2-Butanone	ND	800		ppbv	800	10/14/2011 6:55:00 AM
2-Hexanone	ND	800		ppbv	800	10/14/2011 6:55:00 AM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Acetone	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Benzene	4,800	800		ppbv	800	10/14/2011 6:55:00 AM
Benzyl chloride	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Bromodichloromethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Bromoform	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Bromomethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Carbon disulfide	ND	800		ppbv	800	10/14/2011 6:55:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 1:20:00 PM

Project: Kirtland AFB

Lab ID: 1110067-003 **Matrix:** AIR

Client Sample ID VAO386

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Chlorobenzene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Chlorodibromomethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Chloroethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Chloroform	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Chloromethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Cyclohexane	3,300	1,600		ppbv	800	10/14/2011 6:55:00 AM
Dichlorodifluoromethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Ethyl acetate	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Ethylbenzene	ND	1,600		ppbv	800	10/14/2011 6:55:00 AM
Heptane	1,700	800		ppbv	800	10/14/2011 6:55:00 AM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/14/2011 6:55:00 AM
m,p-Xylene	ND	1,600		ppbv	800	10/14/2011 6:55:00 AM
Methylene chloride	ND	4,000		ppbv	800	10/14/2011 6:55:00 AM
Naphthalene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
n-Hexane	2,900	1,600		ppbv	800	10/14/2011 6:55:00 AM
o-Xylene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Propylene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Styrene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Tetrachloroethene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Tetrahydrofuran	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Toluene	2,500	800		ppbv	800	10/14/2011 6:55:00 AM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Trichloroethene	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Trichlorofluoromethane	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Vinyl acetate	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Vinyl chloride	ND	800		ppbv	800	10/14/2011 6:55:00 AM
Xylenes, Total	ND	2,400		ppbv	800	10/14/2011 6:55:00 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	800	10/14/2011 6:55:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 1:20:00 PM

Project: Kirtland AFB

Lab ID: 1110067-003 **Matrix:** AIR

Client Sample ID VAO386

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	490,000	47,000		µg/m³	400	10/6/2011 3:18:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 3:18:00 AM
C9-C12 Aliphatic Hydrocarbons	85,000	76,000		µg/m³	400	10/6/2011 3:18:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	400	10/6/2011 3:18:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 1:26:00 PM

Project: Kirtland AFB

Lab ID: 1110067-004 **Matrix:** AIR

Client Sample ID VAO387

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	2.8	0.10		%	1	10/17/2011 2:45:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 2:45:00 PM
Methane	ND	0.50		%	1	10/17/2011 2:45:00 PM
Nitrogen	79	0.10		%	1	10/17/2011 2:45:00 PM
Oxygen	17	0.10		%	1	10/17/2011 2:45:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 10:45:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 10:45:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Acetone	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Benzene	2,600	400		ppbv	400	10/13/2011 10:45:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 10:45:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 1:26:00 PM

Project: Kirtland AFB

Lab ID: 1110067-004 **Matrix:** AIR

Client Sample ID VAO387

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Cyclohexane	2,100	800		ppbv	400	10/13/2011 10:45:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 10:45:00 AM
Heptane	1,200	400		ppbv	400	10/13/2011 10:45:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 10:45:00 AM
m,p-Xylene	700	800	J	ppbv	400	10/13/2011 10:45:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 10:45:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
n-Hexane	1,400	800		ppbv	400	10/13/2011 10:45:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Toluene	5,600	400		ppbv	400	10/13/2011 10:45:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 10:45:00 AM
Xylenes, Total	700	1,200	J	ppbv	400	10/13/2011 10:45:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	10/13/2011 10:45:00 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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Livonia, MI 48150
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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 1:26:00 PM

Project: Kirtland AFB

Lab ID: 1110067-004 **Matrix:** AIR

Client Sample ID VAO387

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	10/6/2011 4:07:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 4:07:00 AM
C9-C12 Aliphatic Hydrocarbons	55,000	76,000	J	µg/m³	400	10/6/2011 4:07:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	10/6/2011 4:07:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 1:51:00 PM

Project: Kirtland AFB

Lab ID: 1110067-005 **Matrix:** AIR

Client Sample ID VAO388

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.2	0.10		%	1	10/17/2011 3:28:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 3:28:00 PM
Methane	ND	0.50		%	1	10/17/2011 3:28:00 PM
Nitrogen	82	0.10		%	1	10/17/2011 3:28:00 PM
Oxygen	14	0.10		%	1	10/17/2011 3:28:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 11:31:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 11:31:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Acetone	960	400		ppbv	400	10/13/2011 11:31:00 AM
Benzene	3,600	400		ppbv	400	10/13/2011 11:31:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 11:31:00 AM

Qualifiers:

*IX	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.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 1:51:00 PM

Project: Kirtland AFB

Lab ID: 1110067-005 **Matrix:** AIR

Client Sample ID VAO388

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Cyclohexane	21,000	800		ppbv	400	10/13/2011 11:31:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 11:31:00 AM
Heptane	3,300	400		ppbv	400	10/13/2011 11:31:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 11:31:00 AM
m,p-Xylene	860	800		ppbv	400	10/13/2011 11:31:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 11:31:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
n-Hexane	11,000	800		ppbv	400	10/13/2011 11:31:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Toluene	4,900	400		ppbv	400	10/13/2011 11:31:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 11:31:00 AM
Xylenes, Total	860	1,200	J	ppbv	400	10/13/2011 11:31:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	10/13/2011 11:31:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 1:51:00 PM

Project: Kirtland AFB

Lab ID: 1110067-005 **Matrix:** AIR

Client Sample ID VAO388

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	570,000	47,000		µg/m³	400	10/6/2011 4:56:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 4:56:00 AM
C9-C12 Aliphatic Hydrocarbons	75,000	76,000	J	µg/m³	400	10/6/2011 4:56:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	10/6/2011 4:56:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 2:21:00 PM

Project: Kirtland AFB

Lab ID: 1110067-006 **Matrix:** AIR

Client Sample ID VAO389

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.40	0.10		%	1	10/18/2011 12:18:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 12:18:00 PM
Methane	ND	0.50		%	1	10/18/2011 12:18:00 PM
Nitrogen	78	0.10		%	1	10/18/2011 12:18:00 PM
Oxygen	20	0.10		%	1	10/18/2011 12:18:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
2-Butanone	ND	400		ppbv	400	10/13/2011 12:19:00 PM
2-Hexanone	ND	400		ppbv	400	10/13/2011 12:19:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Acetone	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Benzene	1,300	400		ppbv	400	10/13/2011 12:19:00 PM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Bromoform	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Bromomethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 12:19:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 2:21:00 PM

Project: Kirtland AFB

Lab ID: 1110067-006 **Matrix:** AIR

Client Sample ID VAO389

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Chloroethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Chloroform	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Chloromethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Cyclohexane	1,500	800		ppbv	400	10/13/2011 12:19:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 12:19:00 PM
Heptane	750	400		ppbv	400	10/13/2011 12:19:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 12:19:00 PM
m,p-Xylene	460	800	J	ppbv	400	10/13/2011 12:19:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 12:19:00 PM
Naphthalene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
n-Hexane	1,200	800		ppbv	400	10/13/2011 12:19:00 PM
o-Xylene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Propylene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Styrene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Toluene	2,700	400		ppbv	400	10/13/2011 12:19:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Trichloroethene	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 12:19:00 PM
Xylenes, Total	460	1,200	J	ppbv	400	10/13/2011 12:19:00 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	10/13/2011 12:19:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 2:21:00 PM

Project: Kirtland AFB

Lab ID: 1110067-006 **Matrix:** AIR

Client Sample ID VAO389

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	150,000	47,000		µg/m³	400	10/6/2011 5:45:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 5:45:00 AM
C9-C12 Aliphatic Hydrocarbons	41,000	76,000	J	µg/m³	400	10/6/2011 5:45:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	10/6/2011 5:45:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 2:52:00 PM

Project: Kirtland AFB

Lab ID: 1110067-007 **Matrix:** AIR

Client Sample ID VAO390

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.47	0.10		%	1	10/18/2011 12:42:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 12:42:00 PM
Methane	ND	0.50		%	1	10/18/2011 12:42:00 PM
Nitrogen	78	0.10		%	1	10/18/2011 12:42:00 PM
Oxygen	20	0.10		%	1	10/18/2011 12:42:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
2-Butanone	ND	400		ppbv	400	10/13/2011 1:06:00 PM
2-Hexanone	ND	400		ppbv	400	10/13/2011 1:06:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Acetone	460	400		ppbv	400	10/13/2011 1:06:00 PM
Benzene	3,500	400		ppbv	400	10/13/2011 1:06:00 PM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Bromoform	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Bromomethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 1:06:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 2:52:00 PM

Project: Kirtland AFB

Lab ID: 1110067-007 **Matrix:** AIR

Client Sample ID VAO390

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Chloroethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Chloroform	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Chloromethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Cyclohexane	3,300	800		ppbv	400	10/13/2011 1:06:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 1:06:00 PM
Heptane	760	400		ppbv	400	10/13/2011 1:06:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 1:06:00 PM
m,p-Xylene	500	800	J	ppbv	400	10/13/2011 1:06:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 1:06:00 PM
Naphthalene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
n-Hexane	2,500	800		ppbv	400	10/13/2011 1:06:00 PM
o-Xylene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Propylene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Styrene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Toluene	2,500	400		ppbv	400	10/13/2011 1:06:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Trichloroethene	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 1:06:00 PM
Xylenes, Total	500	1,200	J	ppbv	400	10/13/2011 1:06:00 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	400	10/13/2011 1:06:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 2:52:00 PM

Project: Kirtland AFB

Lab ID: 1110067-007 **Matrix:** AIR

Client Sample ID VAO390

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	360,000	47,000		µg/m³	400	10/6/2011 7:36:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 7:36:00 AM
C9-C12 Aliphatic Hydrocarbons	29,000	76,000	J	µg/m³	400	10/6/2011 7:36:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	10/6/2011 7:36:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 10:23:00 AM

Project: Kirtland AFB

Lab ID: 1110067-008 **Matrix:** AIR

Client Sample ID VAO391

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.3	0.10		%	1	10/18/2011 1:02:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 1:02:00 PM
Methane	ND	0.50		%	1	10/18/2011 1:02:00 PM
Nitrogen	78	0.10		%	1	10/18/2011 1:02:00 PM
Oxygen	19	0.10		%	1	10/18/2011 1:02:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Acetone	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Benzene	21,000	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Bromoform	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/13/2011 6:45:00 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

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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 10:23:00 AM

Project: Kirtland AFB

Lab ID: 1110067-008 **Matrix:** AIR

Client Sample ID VAO391

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Chloroform	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Cyclohexane	23,000	16,000		ppbv	8000	10/13/2011 6:45:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/13/2011 6:45:00 AM
Heptane	17,000	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/13/2011 6:45:00 AM
m,p-Xylene	14,000	16,000	J	ppbv	8000	10/13/2011 6:45:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/13/2011 6:45:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
n-Hexane	20,000	16,000		ppbv	8000	10/13/2011 6:45:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Propylene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Styrene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Toluene	77,000	8,000		ppbv	8000	10/13/2011 6:45:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/13/2011 6:45:00 AM
Xylenes, Total	14,000	24,000	J	ppbv	8000	10/13/2011 6:45:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8000	10/13/2011 6:45:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 10:23:00 AM

Project: Kirtland AFB

Lab ID: 1110067-008 **Matrix:** AIR

Client Sample ID VAO391

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	10/6/2011 8:25:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 8:25:00 AM
C9-C12 Aliphatic Hydrocarbons	37,000	76,000	J	µg/m³	400	10/6/2011 8:25:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	10/6/2011 8:25:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 10:47:00 AM

Project: Kirtland AFB

Lab ID: 1110067-009 **Matrix:** AIR

Client Sample ID VAO392

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.30	0.10		%	1	10/18/2011 1:20:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 1:20:00 PM
Methane	ND	0.50		%	1	10/18/2011 1:20:00 PM
Nitrogen	77	0.10		%	1	10/18/2011 1:20:00 PM
Oxygen	21	0.10		%	1	10/18/2011 1:20:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 7:32:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 7:32:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Acetone	430	400		ppbv	400	10/13/2011 7:32:00 AM
Benzene	870	400		ppbv	400	10/13/2011 7:32:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 7:32:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 10:47:00 AM

Project: Kirtland AFB

Lab ID: 1110067-009 **Matrix:** AIR

Client Sample ID VAO392

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Cyclohexane	1,200	800		ppbv	400	10/13/2011 7:32:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 7:32:00 AM
Heptane	810	400		ppbv	400	10/13/2011 7:32:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 7:32:00 AM
m,p-Xylene	650	800	J	ppbv	400	10/13/2011 7:32:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 7:32:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
n-Hexane	1,300	800		ppbv	400	10/13/2011 7:32:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Toluene	2,900	400		ppbv	400	10/13/2011 7:32:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 7:32:00 AM
Xylenes, Total	650	1,200	J	ppbv	400	10/13/2011 7:32:00 AM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	400	10/13/2011 7:32:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 10:47:00 AM

Project: Kirtland AFB

Lab ID: 1110067-009 **Matrix:** AIR

Client Sample ID VAO392

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	10/6/2011 9:14:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/6/2011 9:14:00 AM
C9-C12 Aliphatic Hydrocarbons	23,000	76,000	J	µg/m³	400	10/6/2011 9:14:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	400	10/6/2011 9:14:00 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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 11:14:00 AM

Project: Kirtland AFB

Lab ID: 1110067-010 **Matrix:** AIR

Client Sample ID VAO393

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.87	0.10		%	1	10/18/2011 1:47:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 1:47:00 PM
Methane	ND	0.50		%	1	10/18/2011 1:47:00 PM
Nitrogen	81	0.10		%	1	10/18/2011 1:47:00 PM
Oxygen	17	0.10		%	1	10/18/2011 1:47:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Acetone	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Benzene	250,000	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Bromoform	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/13/2011 8:13:00 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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31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 11:14:00 AM

Project: Kirtland AFB

Lab ID: 1110067-010 **Matrix:** AIR

Client Sample ID VAO393

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Chloroform	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Cyclohexane	320,000	16,000		ppbv	8000	10/13/2011 8:13:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/13/2011 8:13:00 AM
Heptane	52,000	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/13/2011 8:13:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	10/13/2011 8:13:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/13/2011 8:13:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
n-Hexane	300,000	16,000		ppbv	8000	10/13/2011 8:13:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Propylene	68,000	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Styrene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Toluene	36,000	8,000		ppbv	8000	10/13/2011 8:13:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/13/2011 8:13:00 AM
Xylenes, Total	ND	24,000		ppbv	8000	10/13/2011 8:13:00 AM
Surr: 4-Bromofluorobenzene	122	70-130		%REC	8000	10/13/2011 8:13:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 11:14:00 AM

Project: Kirtland AFB

Lab ID: 1110067-010 **Matrix:** AIR

Client Sample ID VAO393

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	7,400,000	940,000		µg/m³	8000	10/6/2011 12:18:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/6/2011 12:18:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/6/2011 12:18:00 AM
Surr: 4-Bromofluorobenzene	120	70-130		%REC	8000	10/6/2011 12:18:00 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
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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 11:41:00 AM

Project: Kirtland AFB

Lab ID: 1110067-011 **Matrix:** AIR

Client Sample ID VAO394

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.21	0.10		%	1	10/18/2011 2:40:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 2:40:00 PM
Methane	ND	0.50		%	1	10/18/2011 2:40:00 PM
Nitrogen	78	0.10		%	1	10/18/2011 2:40:00 PM
Oxygen	21	0.10		%	1	10/18/2011 2:40:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Acetone	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Benzene	94,000	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Bromoform	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/13/2011 9:57:00 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

Revision v1

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 11:41:00 AM

Project: Kirtland AFB

Lab ID: 1110067-011 **Matrix:** AIR

Client Sample ID VAO394

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Chloroform	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Cyclohexane	120,000	16,000		ppbv	8000	10/13/2011 9:57:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/13/2011 9:57:00 AM
Heptane	42,000	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/13/2011 9:57:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	10/13/2011 9:57:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/13/2011 9:57:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
n-Hexane	110,000	16,000		ppbv	8000	10/13/2011 9:57:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Propylene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Styrene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Toluene	130,000	8,000		ppbv	8000	10/13/2011 9:57:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/13/2011 9:57:00 AM
Xylenes, Total	ND	24,000		ppbv	8000	10/13/2011 9:57:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	8000	10/13/2011 9:57:00 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
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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 11:41:00 AM

Project: Kirtland AFB

Lab ID: 1110067-011 **Matrix:** AIR

Client Sample ID VAO394

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	6,300,000	940,000		µg/m³	8000	10/6/2011 1:00:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/6/2011 1:00:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/6/2011 1:00:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	8000	10/6/2011 1:00:00 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
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RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:53:00 AM

Project: Kirtland AFB

Lab ID: 1110067-012 **Matrix:** AIR

Client Sample ID VAO403

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	6.3	0.10		%	1	10/18/2011 3:00:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 3:00:00 PM
Methane	ND	0.50		%	1	10/18/2011 3:00:00 PM
Nitrogen	81	0.10		%	1	10/18/2011 3:00:00 PM
Oxygen	11	0.10		%	1	10/18/2011 3:00:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,2,4-Trimethylbenzene	910	800		ppbv	800	10/14/2011 3:12:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
2-Butanone	ND	800		ppbv	800	10/14/2011 3:12:00 PM
2-Hexanone	ND	800		ppbv	800	10/14/2011 3:12:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Acetone	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Benzene	86,000	8,000		ppbv	8000	10/14/2011 3:53:00 PM
Benzyl chloride	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Bromoform	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Bromomethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Carbon disulfide	ND	800		ppbv	800	10/14/2011 3:12:00 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
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Analytical Report

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WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:53:00 AM

Project: Kirtland AFB

Lab ID: 1110067-012 **Matrix:** AIR

Client Sample ID VAO403

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Chlorobenzene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Chloroethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Chloroform	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Chloromethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Cyclohexane	160,000	16,000		ppbv	8000	10/14/2011 3:53:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Ethyl acetate	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Ethylbenzene	3,400	1,600		ppbv	800	10/14/2011 3:12:00 PM
Heptane	59,000	8,000		ppbv	8000	10/14/2011 3:53:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/14/2011 3:12:00 PM
m,p-Xylene	8,500	1,600		ppbv	800	10/14/2011 3:12:00 PM
Methylene chloride	ND	4,000		ppbv	800	10/14/2011 3:12:00 PM
Naphthalene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
n-Hexane	76,000	16,000		ppbv	8000	10/14/2011 3:53:00 PM
o-Xylene	2,700	800		ppbv	800	10/14/2011 3:12:00 PM
Propylene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Styrene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Toluene	50,000	8,000		ppbv	8000	10/14/2011 3:53:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Trichloroethene	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Vinyl acetate	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Vinyl chloride	ND	800		ppbv	800	10/14/2011 3:12:00 PM
Xylenes, Total	11,000	2,400		ppbv	800	10/14/2011 3:12:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	800	10/14/2011 3:12:00 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
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Analytical Report

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WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:53:00 AM

Project: Kirtland AFB

Lab ID: 1110067-012 **Matrix:** AIR

Client Sample ID VAO403

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	6,100,000	940,000		µg/m³	8000	10/15/2011 2:41:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/15/2011 2:41:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/15/2011 2:41:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	8000	10/15/2011 2:41:00 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
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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:05:00 AM

Project: Kirtland AFB

Lab ID: 1110067-013 **Matrix:** AIR

Client Sample ID VAO404

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	5.7	0.10		%	1	10/18/2011 3:24:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 3:24:00 PM
Methane	ND	0.50		%	1	10/18/2011 3:24:00 PM
Nitrogen	83	0.10		%	1	10/18/2011 3:24:00 PM
Oxygen	9.6	0.10		%	1	10/18/2011 3:24:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,3-Butadiene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
2-Butanone	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
2-Hexanone	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Acetone	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Benzene	220,000	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Benzyl chloride	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Bromodichloromethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Bromoform	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Bromomethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Carbon disulfide	ND	20,000		ppbv	20000	10/14/2011 1:47:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:05:00 AM

Project: Kirtland AFB

Lab ID: 1110067-013 **Matrix:** AIR

Client Sample ID VAO404

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Chlorobenzene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Chloroethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Chloroform	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Chloromethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Cyclohexane	840,000	40,000		ppbv	20000	10/14/2011 1:47:00 PM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Ethyl acetate	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Ethylbenzene	ND	40,000		ppbv	20000	10/14/2011 1:47:00 PM
Heptane	320,000	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/14/2011 1:47:00 PM
m,p-Xylene	23,000	40,000	J	ppbv	20000	10/14/2011 1:47:00 PM
Methylene chloride	ND	100,000		ppbv	20000	10/14/2011 1:47:00 PM
Naphthalene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
n-Hexane	700,000	40,000		ppbv	20000	10/14/2011 1:47:00 PM
o-Xylene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Propylene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Styrene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Tetrachloroethene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Toluene	250,000	20,000		ppbv	20000	10/14/2011 1:47:00 PM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Trichloroethene	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Vinyl acetate	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Vinyl chloride	ND	20,000		ppbv	20000	10/14/2011 1:47:00 PM
Xylenes, Total	23,000	60,000	J	ppbv	20000	10/14/2011 1:47:00 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	20000	10/14/2011 1:47:00 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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31628 Glendale St.
Livonia, MI 48150
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:05:00 AM

Project: Kirtland AFB

Lab ID: 1110067-013 **Matrix:** AIR

Client Sample ID VAO404

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	38,000,000	2,300,000		µg/m³	20000	10/12/2011 4:31:00 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	10/12/2011 4:31:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000		µg/m³	20000	10/12/2011 4:31:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	20000	10/12/2011 4:31:00 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
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Analytical Report

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WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:05:00 AM

Project: Kirtland AFB

Lab ID: 1110067-014 **Matrix:** AIR

Client Sample ID VAO405

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	5.5	0.10		%	1	10/18/2011 3:44:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 3:44:00 PM
Methane	ND	0.50		%	1	10/18/2011 3:44:00 PM
Nitrogen	83	0.10		%	1	10/18/2011 3:44:00 PM
Oxygen	9.5	0.10		%	1	10/18/2011 3:44:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,3-Butadiene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
2-Butanone	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
2-Hexanone	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Acetone	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Benzene	210,000	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Benzyl chloride	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Bromodichloromethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Bromoform	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Bromomethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Carbon disulfide	ND	20,000		ppbv	20000	10/14/2011 2:28:00 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
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

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WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:05:00 AM

Project: Kirtland AFB

Lab ID: 1110067-014 **Matrix:** AIR

Client Sample ID VAO405

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Chlorobenzene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Chloroethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Chloroform	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Chloromethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Cyclohexane	820,000	40,000		ppbv	20000	10/14/2011 2:28:00 PM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Ethyl acetate	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Ethylbenzene	ND	40,000		ppbv	20000	10/14/2011 2:28:00 PM
Heptane	320,000	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/14/2011 2:28:00 PM
m,p-Xylene	25,000	40,000	J	ppbv	20000	10/14/2011 2:28:00 PM
Methylene chloride	ND	100,000		ppbv	20000	10/14/2011 2:28:00 PM
Naphthalene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
n-Hexane	670,000	40,000		ppbv	20000	10/14/2011 2:28:00 PM
o-Xylene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Propylene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Styrene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Tetrachloroethene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Toluene	260,000	20,000		ppbv	20000	10/14/2011 2:28:00 PM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Trichloroethene	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Vinyl acetate	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Vinyl chloride	ND	20,000		ppbv	20000	10/14/2011 2:28:00 PM
Xylenes, Total	25,000	60,000	J	ppbv	20000	10/14/2011 2:28:00 PM
Surr: 4-Bromofluorobenzene	119	70-130		%REC	20000	10/14/2011 2:28:00 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

Revision v1

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 11:05:00 AM

Project: Kirtland AFB

Lab ID: 1110067-014 **Matrix:** AIR

Client Sample ID VAO405

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	27,000,000	2,300,000		µg/m³	20000	10/13/2011 1:30:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	10/13/2011 1:30:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000		µg/m³	20000	10/13/2011 1:30:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	20000	10/13/2011 1:30:00 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
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Analytical Report

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WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 10:19:00 AM

Project: Kirtland AFB

Lab ID: 1110067-015 **Matrix:** AIR

Client Sample ID VAO406

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.49	0.10		%	1	10/18/2011 4:08:00 PM
Carbon Monoxide	ND	0.10		%	1	10/18/2011 4:08:00 PM
Methane	ND	0.50		%	1	10/18/2011 4:08:00 PM
Nitrogen	78	0.10		%	1	10/18/2011 4:08:00 PM
Oxygen	20	0.10		%	1	10/18/2011 4:08:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
2-Butanone	ND	800		ppbv	800	10/14/2011 1:06:00 PM
2-Hexanone	ND	800		ppbv	800	10/14/2011 1:06:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Acetone	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Benzene	23,000	800		ppbv	800	10/14/2011 1:06:00 PM
Benzyl chloride	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Bromoform	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Bromomethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Carbon disulfide	ND	800		ppbv	800	10/14/2011 1:06:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 10:19:00 AM

Project: Kirtland AFB

Lab ID: 1110067-015 **Matrix:** AIR

Client Sample ID VAO406

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Chlorobenzene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Chloroethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Chloroform	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Chloromethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Cyclohexane	36,000	1,600		ppbv	800	10/14/2011 1:06:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Ethyl acetate	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Ethylbenzene	860	1,600	J	ppbv	800	10/14/2011 1:06:00 PM
Heptane	22,000	800		ppbv	800	10/14/2011 1:06:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/14/2011 1:06:00 PM
m,p-Xylene	2,400	1,600		ppbv	800	10/14/2011 1:06:00 PM
Methylene chloride	2,500	4,000	J	ppbv	800	10/14/2011 1:06:00 PM
Naphthalene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
n-Hexane	43,000	1,600		ppbv	800	10/14/2011 1:06:00 PM
o-Xylene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Propylene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Styrene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Toluene	25,000	800		ppbv	800	10/14/2011 1:06:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Trichloroethene	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Vinyl acetate	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Vinyl chloride	ND	800		ppbv	800	10/14/2011 1:06:00 PM
Xylenes, Total	2,400	2,400	J	ppbv	800	10/14/2011 1:06:00 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	800	10/14/2011 1:06:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 10:19:00 AM

Project: Kirtland AFB

Lab ID: 1110067-015 **Matrix:** AIR

Client Sample ID VAO406

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	2,400,000	940,000		µg/m³	8000	10/13/2011 5:09:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/13/2011 5:09:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/13/2011 5:09:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	10/13/2011 5:09:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 12:20:00 PM

Project: Kirtland AFB

Lab ID: 1110067-016 **Matrix:** AIR

Client Sample ID VAO407

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.68	0.10		%	1	10/19/2011 3:53:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 3:53:00 PM
Methane	ND	0.50		%	1	10/19/2011 3:53:00 PM
Nitrogen	77	0.10		%	1	10/19/2011 3:53:00 PM
Oxygen	20	0.10		%	1	10/19/2011 3:53:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Acetone	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Benzene	57,000	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Bromoform	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/19/2011 5:37:00 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

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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 12:20:00 PM

Project: Kirtland AFB

Lab ID: 1110067-016 **Matrix:** AIR

Client Sample ID VAO407

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Chloroform	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Cyclohexane	110,000	16,000		ppbv	8000	10/19/2011 5:37:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Ethylbenzene	15,000	16,000	J	ppbv	8000	10/19/2011 5:37:00 AM
Heptane	85,000	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/19/2011 5:37:00 AM
m,p-Xylene	26,000	16,000		ppbv	8000	10/19/2011 5:37:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/19/2011 5:37:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
n-Hexane	100,000	16,000		ppbv	8000	10/19/2011 5:37:00 AM
o-Xylene	9,100	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Propylene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Styrene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Toluene	120,000	8,000		ppbv	8000	10/19/2011 5:37:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/19/2011 5:37:00 AM
Xylenes, Total	36,000	24,000		ppbv	8000	10/19/2011 5:37:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	8000	10/19/2011 5:37:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 12:20:00 PM

Project: Kirtland AFB

Lab ID: 1110067-016 **Matrix:** AIR

Client Sample ID VAO407

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	9,000,000	940,000		µg/m³	8000	10/6/2011 11:20:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/6/2011 11:20:00 AM
C9-C12 Aliphatic Hydrocarbons	1,200,000	1,500,000	J	µg/m³	8000	10/6/2011 11:20:00 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8000	10/6/2011 11:20:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 2:02:00 PM

Project: Kirtland AFB

Lab ID: 1110067-017 **Matrix:** AIR

Client Sample ID VAO408

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	6.9	0.10		%	1	10/19/2011 4:12:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 4:12:00 PM
Methane	ND	0.50		%	1	10/19/2011 4:12:00 PM
Nitrogen	82	0.10		%	1	10/19/2011 4:12:00 PM
Oxygen	7.8	0.10		%	1	10/19/2011 4:12:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,1,2,2-Tetrachloroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,1,2-Trichloroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,1-Dichloroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,1-Dichloroethene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,2,4-Trichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,2,4-Trimethylbenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,2-Dibromoethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,2-Dichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,2-Dichloroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,2-Dichloropropane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,3,5-Trimethylbenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,3-Butadiene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,3-Dichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
1,4-Dichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
2-Butanone	120,000	40,000		ppbv	40000	10/19/2011 6:18:00 AM
2-Hexanone	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
4-Methyl-2-pentanone	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Acetone	620,000	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Benzene	590,000	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Benzyl chloride	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Bromodichloromethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Bromoform	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Bromomethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Carbon disulfide	ND	40,000		ppbv	40000	10/19/2011 6:18:00 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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 2:02:00 PM

Project: Kirtland AFB

Lab ID: 1110067-017 **Matrix:** AIR

Client Sample ID VAO408

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Chlorobenzene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Chlorodibromomethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Chloroethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Chloroform	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Chloromethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
cis-1,2-Dichloroethene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
cis-1,3-dichloropropene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Cyclohexane	2,200,000	80,000		ppbv	40000	10/19/2011 6:18:00 AM
Dichlorodifluoromethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Ethyl acetate	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Ethylbenzene	44,000	80,000	J	ppbv	40000	10/19/2011 6:18:00 AM
Heptane	1,400,000	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Hexachlorobutadiene	ND	80,000		ppbv	40000	10/19/2011 6:18:00 AM
m,p-Xylene	87,000	80,000		ppbv	40000	10/19/2011 6:18:00 AM
Methylene chloride	ND	200,000		ppbv	40000	10/19/2011 6:18:00 AM
Naphthalene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
n-Hexane	1,700,000	80,000		ppbv	40000	10/19/2011 6:18:00 AM
o-Xylene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Propylene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Styrene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
tert-Butyl Methyl Ether	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Tetrachloroethene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Tetrahydrofuran	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Toluene	1,500,000	40,000		ppbv	40000	10/19/2011 6:18:00 AM
trans-1,2-Dichloroethene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
trans-1,3-dichloropropene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Trichloroethene	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Trichlorofluoromethane	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Vinyl acetate	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Vinyl chloride	ND	40,000		ppbv	40000	10/19/2011 6:18:00 AM
Xylenes, Total	87,000	120,000	J	ppbv	40000	10/19/2011 6:18:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40000	10/19/2011 6:18:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 2:02:00 PM

Project: Kirtland AFB

Lab ID: 1110067-017 **Matrix:** AIR

Client Sample ID VAO408

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	70,000,000	4,700,000		µg/m³	40000	10/17/2011 2:44:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000		µg/m³	40000	10/17/2011 2:44:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000		µg/m³	40000	10/17/2011 2:44:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40000	10/17/2011 2:44:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 2:36:00 PM

Project: Kirtland AFB

Lab ID: 1110067-018 **Matrix:** AIR

Client Sample ID VAO409

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	7.3	0.10		%	1	10/19/2011 4:32:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 4:32:00 PM
Methane	ND	0.50		%	1	10/19/2011 4:32:00 PM
Nitrogen	84	0.10		%	1	10/19/2011 4:32:00 PM
Oxygen	4.9	0.10		%	1	10/19/2011 4:32:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,1,2,2-Tetrachloroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,1,2-Trichloroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,1-Dichloroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,1-Dichloroethene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,2,4-Trichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,2,4-Trimethylbenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,2-Dibromoethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,2-Dichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,2-Dichloroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,2-Dichloropropane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,3,5-Trimethylbenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,3-Butadiene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,3-Dichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
1,4-Dichlorobenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
2-Butanone	330,000	40,000		ppbv	40000	10/19/2011 7:00:00 AM
2-Hexanone	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
4-Methyl-2-pentanone	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Acetone	1,800,000	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Benzene	900,000	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Benzyl chloride	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Bromodichloromethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Bromoform	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Bromomethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Carbon disulfide	ND	40,000		ppbv	40000	10/19/2011 7:00:00 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.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 2:36:00 PM

Project: Kirtland AFB

Lab ID: 1110067-018 **Matrix:** AIR

Client Sample ID VAO409

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Chlorobenzene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Chlorodibromomethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Chloroethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Chloroform	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Chloromethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
cis-1,2-Dichloroethene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
cis-1,3-dichloropropene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Cyclohexane	2,500,000	80,000		ppbv	40000	10/19/2011 7:00:00 AM
Dichlorodifluoromethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Ethyl acetate	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Ethylbenzene	45,000	80,000	J	ppbv	40000	10/19/2011 7:00:00 AM
Heptane	1,400,000	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Hexachlorobutadiene	ND	80,000		ppbv	40000	10/19/2011 7:00:00 AM
m,p-Xylene	97,000	80,000		ppbv	40000	10/19/2011 7:00:00 AM
Methylene chloride	ND	200,000		ppbv	40000	10/19/2011 7:00:00 AM
Naphthalene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
n-Hexane	3,000,000	80,000		ppbv	40000	10/19/2011 7:00:00 AM
o-Xylene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Propylene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Styrene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
tert-Butyl Methyl Ether	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Tetrachloroethene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Tetrahydrofuran	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Toluene	1,500,000	40,000		ppbv	40000	10/19/2011 7:00:00 AM
trans-1,2-Dichloroethene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
trans-1,3-dichloropropene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Trichloroethene	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Trichlorofluoromethane	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Vinyl acetate	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Vinyl chloride	ND	40,000		ppbv	40000	10/19/2011 7:00:00 AM
Xylenes, Total	97,000	120,000	J	ppbv	40000	10/19/2011 7:00:00 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	40000	10/19/2011 7:00:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 2:36:00 PM

Project: Kirtland AFB

Lab ID: 1110067-018 **Matrix:** AIR

Client Sample ID VAO409

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	100,000,000	4,700,000		µg/m³	40000	10/17/2011 3:27:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300,000		µg/m³	40000	10/17/2011 3:27:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600,000		µg/m³	40000	10/17/2011 3:27:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40000	10/17/2011 3:27:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 3:13:00 PM

Project: Kirtland AFB

Lab ID: 1110067-019 **Matrix:** AIR

Client Sample ID VAO410

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	3.4	0.10		%	1	10/19/2011 5:04:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 5:04:00 PM
Methane	ND	0.50		%	1	10/19/2011 5:04:00 PM
Nitrogen	81	0.10		%	1	10/19/2011 5:04:00 PM
Oxygen	13	0.10		%	1	10/19/2011 5:04:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
2-Butanone	24,000	8,000		ppbv	8000	10/19/2011 7:41:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Acetone	170,000	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Benzene	150,000	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Bromoform	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/19/2011 7:41:00 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.

RTI
31628 Glendale St.
Livonia, MI 48150
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 3:13:00 PM

Project: Kirtland AFB

Lab ID: 1110067-019 **Matrix:** AIR

Client Sample ID VAO410

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Chloroform	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Cyclohexane	370,000	16,000		ppbv	8000	10/19/2011 7:41:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Ethylbenzene	14,000	16,000	J	ppbv	8000	10/19/2011 7:41:00 AM
Heptane	220,000	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/19/2011 7:41:00 AM
m,p-Xylene	35,000	16,000		ppbv	8000	10/19/2011 7:41:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/19/2011 7:41:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
n-Hexane	530,000	16,000		ppbv	8000	10/19/2011 7:41:00 AM
o-Xylene	9,900	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Propylene	13,000	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Styrene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Toluene	240,000	8,000		ppbv	8000	10/19/2011 7:41:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/19/2011 7:41:00 AM
Xylenes, Total	45,000	24,000		ppbv	8000	10/19/2011 7:41:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	8000	10/19/2011 7:41:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 3:13:00 PM

Project: Kirtland AFB

Lab ID: 1110067-019 **Matrix:** AIR

Client Sample ID VAO410

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	10,000,000	940,000		µg/m³	8000	10/6/2011 5:22:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/6/2011 5:22:00 PM
C9-C12 Aliphatic Hydrocarbons	450,000	1,500,000	J	µg/m³	8000	10/6/2011 5:22:00 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	8000	10/6/2011 5:22:00 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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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 3:50:00 PM

Project: Kirtland AFB

Lab ID: 1110067-020 **Matrix:** AIR

Client Sample ID VAO411

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.66	0.10		%	1	10/19/2011 5:33:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 5:33:00 PM
Methane	ND	0.50		%	1	10/19/2011 5:33:00 PM
Nitrogen	78	0.10		%	1	10/19/2011 5:33:00 PM
Oxygen	20	0.10		%	1	10/19/2011 5:33:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Acetone	28,000	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Benzene	21,000	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Bromoform	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/19/2011 9:05:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 3:50:00 PM

Project: Kirtland AFB

Lab ID: 1110067-020 **Matrix:** AIR

Client Sample ID VAO411

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Chloroform	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Cyclohexane	63,000	16,000		ppbv	8000	10/19/2011 9:05:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/19/2011 9:05:00 AM
Heptane	60,000	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/19/2011 9:05:00 AM
m,p-Xylene	29,000	16,000		ppbv	8000	10/19/2011 9:05:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/19/2011 9:05:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
n-Hexane	74,000	16,000		ppbv	8000	10/19/2011 9:05:00 AM
o-Xylene	9,300	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Propylene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Styrene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Toluene	66,000	8,000		ppbv	8000	10/19/2011 9:05:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/19/2011 9:05:00 AM
Xylenes, Total	38,000	24,000		ppbv	8000	10/19/2011 9:05:00 AM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	8000	10/19/2011 9:05:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 3:50:00 PM

Project: Kirtland AFB

Lab ID: 1110067-020 **Matrix:** AIR

Client Sample ID VAO411

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	5,300,000	940,000		µg/m³	8000	10/6/2011 6:04:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/6/2011 6:04:00 PM
C9-C12 Aliphatic Hydrocarbons	990,000	1,500,000	J	µg/m³	8000	10/6/2011 6:04:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	8000	10/6/2011 6:04:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 8:39:00 AM

Project: Kirtland AFB

Lab ID: 1110067-021 **Matrix:** AIR

Client Sample ID VAO432

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.26	0.10		%	1	10/19/2011 5:57:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 5:57:00 PM
Methane	ND	0.50		%	1	10/19/2011 5:57:00 PM
Nitrogen	79	0.10		%	1	10/19/2011 5:57:00 PM
Oxygen	19	0.10		%	1	10/19/2011 5:57:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
2-Butanone	ND	400		ppbv	400	10/13/2011 1:53:00 PM
2-Hexanone	ND	400		ppbv	400	10/13/2011 1:53:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Acetone	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Benzene	640	400		ppbv	400	10/13/2011 1:53:00 PM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Bromoform	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Bromomethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 1:53:00 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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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 8:39:00 AM

Project: Kirtland AFB

Lab ID: 1110067-021 **Matrix:** AIR

Client Sample ID VAO432

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Chloroethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Chloroform	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Chloromethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Cyclohexane	1,700	800		ppbv	400	10/13/2011 1:53:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 1:53:00 PM
Heptane	680	400		ppbv	400	10/13/2011 1:53:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 1:53:00 PM
m,p-Xylene	ND	800		ppbv	400	10/13/2011 1:53:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 1:53:00 PM
Naphthalene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
n-Hexane	670	800	J	ppbv	400	10/13/2011 1:53:00 PM
o-Xylene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Propylene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Styrene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Toluene	1,400	400		ppbv	400	10/13/2011 1:53:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Trichloroethene	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 1:53:00 PM
Xylenes, Total	ND	1,200		ppbv	400	10/13/2011 1:53:00 PM
Surr: 4-Bromofluorobenzene	134	70-130	S	%REC	400	10/13/2011 1:53:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 8:39:00 AM

Project: Kirtland AFB

Lab ID: 1110067-021 **Matrix:** AIR

Client Sample ID VAO432

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	170,000	47,000		µg/m³	400	10/7/2011 10:14:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/7/2011 10:14:00 AM
C9-C12 Aliphatic Hydrocarbons	40,000	76,000	J	µg/m³	400	10/7/2011 10:14:00 AM
Surr: 4-Bromofluorobenzene	123	70-130		%REC	400	10/7/2011 10:14:00 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 9:09:00 AM

Project: Kirtland AFB

Lab ID: 1110067-022 **Matrix:** AIR

Client Sample ID VAO433

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.45	0.10		%	1	10/19/2011 6:21:00 PM
Carbon Monoxide	ND	0.10		%	1	10/19/2011 6:21:00 PM
Methane	ND	0.50		%	1	10/19/2011 6:21:00 PM
Nitrogen	79	0.10		%	1	10/19/2011 6:21:00 PM
Oxygen	18	0.10		%	1	10/19/2011 6:21:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
2-Butanone	ND	400		ppbv	400	10/13/2011 2:41:00 PM
2-Hexanone	ND	400		ppbv	400	10/13/2011 2:41:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Acetone	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Benzene	3,900	400		ppbv	400	10/13/2011 2:41:00 PM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Bromoform	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Bromomethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 2:41:00 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 9:09:00 AM

Project: Kirtland AFB

Lab ID: 1110067-022 **Matrix:** AIR

Client Sample ID VAO433

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Chloroethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Chloroform	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Chloromethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Cyclohexane	3,700	800		ppbv	400	10/13/2011 2:41:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 2:41:00 PM
Heptane	710	400		ppbv	400	10/13/2011 2:41:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 2:41:00 PM
m,p-Xylene	ND	800		ppbv	400	10/13/2011 2:41:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 2:41:00 PM
Naphthalene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
n-Hexane	2,500	800		ppbv	400	10/13/2011 2:41:00 PM
o-Xylene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Propylene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Styrene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Toluene	3,200	400		ppbv	400	10/13/2011 2:41:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Trichloroethene	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 2:41:00 PM
Xylenes, Total	ND	1,200		ppbv	400	10/13/2011 2:41:00 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	400	10/13/2011 2:41:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 9:09:00 AM

Project: Kirtland AFB

Lab ID: 1110067-022 **Matrix:** AIR

Client Sample ID VAO433

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	420,000	47,000		µg/m³	400	10/12/2011 12:47:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/12/2011 12:47:00 AM
C9-C12 Aliphatic Hydrocarbons	15,000	76,000	J	µg/m³	400	10/12/2011 12:47:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	400	10/12/2011 12:47:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1110067-023 **Matrix:** AIR

Client Sample ID VAO434

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.49	0.10		%	1	10/20/2011 1:10:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 1:10:00 PM
Methane	ND	0.50		%	1	10/20/2011 1:10:00 PM
Nitrogen	80	0.10		%	1	10/20/2011 1:10:00 PM
Oxygen	17	0.10		%	1	10/20/2011 1:10:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,3-Butadiene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
2-Butanone	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
2-Hexanone	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Acetone	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Benzene	130,000	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Benzyl chloride	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Bromodichloromethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Bromoform	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Bromomethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Carbon disulfide	ND	20,000		ppbv	20000	10/13/2011 3:22:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1110067-023 **Matrix:** AIR

Client Sample ID VAO434

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Chlorobenzene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Chloroethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Chloroform	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Chloromethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Cyclohexane	600,000	40,000		ppbv	20000	10/13/2011 3:22:00 PM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Ethyl acetate	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Ethylbenzene	ND	40,000		ppbv	20000	10/13/2011 3:22:00 PM
Heptane	270,000	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/13/2011 3:22:00 PM
m,p-Xylene	ND	40,000		ppbv	20000	10/13/2011 3:22:00 PM
Methylene chloride	ND	100,000		ppbv	20000	10/13/2011 3:22:00 PM
Naphthalene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
n-Hexane	610,000	40,000		ppbv	20000	10/13/2011 3:22:00 PM
o-Xylene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Propylene	24,000	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Styrene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Tetrachloroethene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Toluene	150,000	20,000		ppbv	20000	10/13/2011 3:22:00 PM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Trichloroethene	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Vinyl acetate	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Vinyl chloride	ND	20,000		ppbv	20000	10/13/2011 3:22:00 PM
Xylenes, Total	ND	60,000		ppbv	20000	10/13/2011 3:22:00 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	20000	10/13/2011 3:22:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1110067-023 **Matrix:** AIR

Client Sample ID VAO434

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	10/12/2011 1:30:00 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	10/12/2011 1:30:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	3,800,000		µg/m³	20000	10/12/2011 1:30:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	20000	10/12/2011 1:30:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 10:21:00 AM

Project: Kirtland AFB

Lab ID: 1110067-024 **Matrix:** AIR

Client Sample ID VAO435

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.95	0.10		%	1	10/20/2011 1:37:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 1:37:00 PM
Methane	ND	0.50		%	1	10/20/2011 1:37:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 1:37:00 PM
Oxygen	18	0.10		%	1	10/20/2011 1:37:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,3-Butadiene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
2-Butanone	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
2-Hexanone	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Acetone	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Benzene	390,000	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Benzyl chloride	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Bromodichloromethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Bromoform	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Bromomethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Carbon disulfide	ND	8,000		ppbv	8000	10/17/2011 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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 10:21:00 AM

Project: Kirtland AFB

Lab ID: 1110067-024 **Matrix:** AIR

Client Sample ID VAO435

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Chlorobenzene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Chloroethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Chloroform	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Chloromethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Cyclohexane	1,200,000	40,000		ppbv	20000	10/19/2011 9:46:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Ethyl acetate	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Ethylbenzene	12,000	16,000	J	ppbv	8000	10/17/2011 5:28:00 PM
Heptane	430,000	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/17/2011 5:28:00 PM
m,p-Xylene	33,000	16,000		ppbv	8000	10/17/2011 5:28:00 PM
Methylene chloride	ND	40,000		ppbv	8000	10/17/2011 5:28:00 PM
Naphthalene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
n-Hexane	1,400,000	40,000		ppbv	20000	10/19/2011 9:46:00 AM
o-Xylene	8,200	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Propylene	13,000	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Styrene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Tetrachloroethene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Toluene	490,000	8,000		ppbv	8000	10/17/2011 5:28:00 PM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Trichloroethene	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Vinyl acetate	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Vinyl chloride	ND	8,000		ppbv	8000	10/17/2011 5:28:00 PM
Xylenes, Total	41,000	24,000		ppbv	8000	10/17/2011 5:28:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	8000	10/17/2011 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

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 10:21:00 AM

Project: Kirtland AFB

Lab ID: 1110067-024 **Matrix:** AIR

Client Sample ID VAO435

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	360,000	47,000		µg/m³	400	10/7/2011 11:04:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/7/2011 11:04:00 AM
C9-C12 Aliphatic Hydrocarbons	42,000	76,000	J	µg/m³	400	10/7/2011 11:04:00 AM
Surr: 4-Bromofluorobenzene	124	70-130		%REC	400	10/7/2011 11:04:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 10:58:00 AM

Project: Kirtland AFB

Lab ID: 1110067-025 **Matrix:** AIR

Client Sample ID VAO454

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.77	0.10		%	1	10/20/2011 2:17:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 2:17:00 PM
Methane	ND	0.50		%	1	10/20/2011 2:17:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 2:17:00 PM
Oxygen	18	0.10		%	1	10/20/2011 2:17:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,3-Butadiene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
2-Butanone	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
2-Hexanone	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Acetone	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Benzene	280,000	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Benzyl chloride	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Bromodichloromethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Bromoform	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Bromomethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Carbon disulfide	ND	20,000		ppbv	20000	10/17/2011 6:09:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 10:58:00 AM

Project: Kirtland AFB

Lab ID: 1110067-025 **Matrix:** AIR

Client Sample ID VAO454

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Chlorobenzene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Chloroethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Chloroform	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Chloromethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Cyclohexane	850,000	40,000		ppbv	20000	10/17/2011 6:09:00 PM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Ethyl acetate	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Ethylbenzene	ND	40,000		ppbv	20000	10/17/2011 6:09:00 PM
Heptane	460,000	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/17/2011 6:09:00 PM
m,p-Xylene	27,000	40,000	J	ppbv	20000	10/17/2011 6:09:00 PM
Methylene chloride	ND	100,000		ppbv	20000	10/17/2011 6:09:00 PM
Naphthalene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
n-Hexane	900,000	40,000		ppbv	20000	10/17/2011 6:09:00 PM
o-Xylene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Propylene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Styrene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Tetrachloroethene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Toluene	350,000	20,000		ppbv	20000	10/17/2011 6:09:00 PM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Trichloroethene	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Vinyl acetate	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Vinyl chloride	ND	20,000		ppbv	20000	10/17/2011 6:09:00 PM
Xylenes, Total	27,000	60,000	J	ppbv	20000	10/17/2011 6:09:00 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	20000	10/17/2011 6:09:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 10:58:00 AM

Project: Kirtland AFB

Lab ID: 1110067-025 **Matrix:** AIR

Client Sample ID VAO454

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	38,000,000	2,300,000		µg/m³	20000	10/12/2011 2:13:00 AM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	10/12/2011 2:13:00 AM
C9-C12 Aliphatic Hydrocarbons	790,000	3,800,000	J	µg/m³	20000	10/12/2011 2:13:00 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	20000	10/12/2011 2:13:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 1:33:00 PM

Project: Kirtland AFB

Lab ID: 1110067-026 **Matrix:** AIR

Client Sample ID VAO592

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.14	0.10		%	1	10/20/2011 3:03:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 3:03:00 PM
Methane	ND	0.50		%	1	10/20/2011 3:03:00 PM
Nitrogen	77	0.10		%	1	10/20/2011 3:03:00 PM
Oxygen	21	0.10		%	1	10/20/2011 3:03:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 12:44:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 12:44:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Acetone	1,000	400		ppbv	400	10/13/2011 12:44:00 AM
Benzene	1,100	400		ppbv	400	10/13/2011 12:44:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 12:44:00 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.

RTI
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 1:33:00 PM

Project: Kirtland AFB

Lab ID: 1110067-026 **Matrix:** AIR

Client Sample ID VAO592

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Cyclohexane	2,100	800		ppbv	400	10/13/2011 12:44:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 12:44:00 AM
Heptane	1,300	400		ppbv	400	10/13/2011 12:44:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 12:44:00 AM
m,p-Xylene	770	800	J	ppbv	400	10/13/2011 12:44:00 AM
Methylene chloride	2,100	2,000		ppbv	400	10/13/2011 12:44:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
n-Hexane	1,500	800		ppbv	400	10/13/2011 12:44:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Toluene	2,100	400		ppbv	400	10/13/2011 12:44:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 12:44:00 AM
Xylenes, Total	770	1,200	J	ppbv	400	10/13/2011 12:44:00 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	400	10/13/2011 12:44:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 1:33:00 PM

Project: Kirtland AFB

Lab ID: 1110067-026 **Matrix:** AIR

Client Sample ID VAO592

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	10/11/2011 7:45:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/11/2011 7:45:00 PM
C9-C12 Aliphatic Hydrocarbons	64,000	76,000	J	µg/m³	400	10/11/2011 7:45:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	400	10/11/2011 7:45:00 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

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1110067-027 **Matrix:** AIR

Client Sample ID VAO593

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	10/20/2011 3:23:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 3:23:00 PM
Methane	ND	0.50		%	1	10/20/2011 3:23:00 PM
Nitrogen	77	0.10		%	1	10/20/2011 3:23:00 PM
Oxygen	20	0.10		%	1	10/20/2011 3:23:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 1:32:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 1:32:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Acetone	550	400		ppbv	400	10/13/2011 1:32:00 AM
Benzene	1,000	400		ppbv	400	10/13/2011 1:32:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 1:32:00 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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1110067-027 **Matrix:** AIR

Client Sample ID VAO593

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Cyclohexane	3,100	800		ppbv	400	10/13/2011 1:32:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 1:32:00 AM
Heptane	1,600	400		ppbv	400	10/13/2011 1:32:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 1:32:00 AM
m,p-Xylene	630	800	J	ppbv	400	10/13/2011 1:32:00 AM
Methylene chloride	1,200	2,000	J	ppbv	400	10/13/2011 1:32:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
n-Hexane	2,900	800		ppbv	400	10/13/2011 1:32:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Toluene	1,600	400		ppbv	400	10/13/2011 1:32:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 1:32:00 AM
Xylenes, Total	630	1,200	J	ppbv	400	10/13/2011 1:32:00 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	400	10/13/2011 1:32:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1110067-027 **Matrix:** AIR

Client Sample ID VAO593

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	170,000	47,000		µg/m³	400	10/11/2011 8:34:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/11/2011 8:34:00 PM
C9-C12 Aliphatic Hydrocarbons	46,000	76,000	J	µg/m³	400	10/11/2011 8:34:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	10/11/2011 8:34:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1110067-028 **Matrix:** AIR

Client Sample ID VAO594

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	10/20/2011 3:48:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 3:48:00 PM
Methane	ND	0.50		%	1	10/20/2011 3:48:00 PM
Nitrogen	77	0.10		%	1	10/20/2011 3:48:00 PM
Oxygen	20	0.10		%	1	10/20/2011 3:48:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 2:19:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 2:19:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Acetone	640	400		ppbv	400	10/13/2011 2:19:00 AM
Benzene	1,100	400		ppbv	400	10/13/2011 2:19:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 2:19:00 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.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1110067-028 **Matrix:** AIR

Client Sample ID VAO594

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Cyclohexane	2,900	800		ppbv	400	10/13/2011 2:19:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 2:19:00 AM
Heptane	1,900	400		ppbv	400	10/13/2011 2:19:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 2:19:00 AM
m,p-Xylene	930	800		ppbv	400	10/13/2011 2:19:00 AM
Methylene chloride	1,100	2,000	J	ppbv	400	10/13/2011 2:19:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
n-Hexane	2,700	800		ppbv	400	10/13/2011 2:19:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Toluene	2,400	400		ppbv	400	10/13/2011 2:19:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 2:19:00 AM
Xylenes, Total	930	1,200	J	ppbv	400	10/13/2011 2:19:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	10/13/2011 2:19:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:03:00 PM

Project: Kirtland AFB

Lab ID: 1110067-028 **Matrix:** AIR

Client Sample ID VAO594

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	10/11/2011 9:23:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/11/2011 9:23:00 PM
C9-C12 Aliphatic Hydrocarbons	63,000	76,000	J	µg/m³	400	10/11/2011 9:23:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	10/11/2011 9:23:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1110067-029 **Matrix:** AIR

Client Sample ID VAO595

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.11	0.10		%	1	10/20/2011 4:18:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 4:18:00 PM
Methane	ND	0.50		%	1	10/20/2011 4:18:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 4:18:00 PM
Oxygen	20	0.10		%	1	10/20/2011 4:18:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 3:06:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 3:06:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Acetone	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Benzene	810	400		ppbv	400	10/13/2011 3:06:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 3:06:00 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

Revision v1

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1110067-029 **Matrix:** AIR

Client Sample ID VAO595

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Cyclohexane	1,500	800		ppbv	400	10/13/2011 3:06:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 3:06:00 AM
Heptane	1,000	400		ppbv	400	10/13/2011 3:06:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 3:06:00 AM
m,p-Xylene	600	800	J	ppbv	400	10/13/2011 3:06:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 3:06:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
n-Hexane	1,000	800		ppbv	400	10/13/2011 3:06:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Toluene	1,700	400		ppbv	400	10/13/2011 3:06:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 3:06:00 AM
Xylenes, Total	600	1,200	J	ppbv	400	10/13/2011 3:06:00 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	400	10/13/2011 3:06:00 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
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

RTI
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Livonia, MI 48150
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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 2:53:00 PM

Project: Kirtland AFB

Lab ID: 1110067-029 **Matrix:** AIR

Client Sample ID VAO595

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	10/11/2011 10:13:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/11/2011 10:13:00 PM
C9-C12 Aliphatic Hydrocarbons	52,000	76,000	J	µg/m³	400	10/11/2011 10:13:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	400	10/11/2011 10:13:00 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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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 3:32:00 PM

Project: Kirtland AFB

Lab ID: 1110067-030 **Matrix:** AIR

Client Sample ID VAO596

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.29	0.10		%	1	10/20/2011 4:41:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 4:41:00 PM
Methane	ND	0.50		%	1	10/20/2011 4:41:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 4:41:00 PM
Oxygen	19	0.10		%	1	10/20/2011 4:41:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
2-Butanone	ND	400		ppbv	400	10/13/2011 3:54:00 AM
2-Hexanone	ND	400		ppbv	400	10/13/2011 3:54:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Acetone	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Benzene	740	400		ppbv	400	10/13/2011 3:54:00 AM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Bromoform	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Bromomethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 3:54:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 3:32:00 PM

Project: Kirtland AFB

Lab ID: 1110067-030 **Matrix:** AIR

Client Sample ID VAO596

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Chloroethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Chloroform	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Chloromethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Cyclohexane	1,600	800		ppbv	400	10/13/2011 3:54:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 3:54:00 AM
Heptane	970	400		ppbv	400	10/13/2011 3:54:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 3:54:00 AM
m,p-Xylene	630	800	J	ppbv	400	10/13/2011 3:54:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 3:54:00 AM
Naphthalene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
n-Hexane	990	800		ppbv	400	10/13/2011 3:54:00 AM
o-Xylene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Propylene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Styrene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Toluene	1,900	400		ppbv	400	10/13/2011 3:54:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Trichloroethene	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 3:54:00 AM
Xylenes, Total	630	1,200	J	ppbv	400	10/13/2011 3:54:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	400	10/13/2011 3:54:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 3:32:00 PM

Project: Kirtland AFB

Lab ID: 1110067-030 **Matrix:** AIR

Client Sample ID VAO596

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	210,000	47,000		µg/m³	400	10/11/2011 11:02:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/11/2011 11:02:00 PM
C9-C12 Aliphatic Hydrocarbons	46,000	76,000	J	µg/m³	400	10/11/2011 11:02:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	400	10/11/2011 11:02:00 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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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 4:08:00 PM

Project: Kirtland AFB

Lab ID: 1110067-031 **Matrix:** AIR

Client Sample ID VAO597

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.18	0.10		%	1	10/20/2011 5:04:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 5:04:00 PM
Methane	ND	0.50		%	1	10/20/2011 5:04:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 5:04:00 PM
Oxygen	20	0.10		%	1	10/20/2011 5:04:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Acetone	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Benzene	16,000	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Bromoform	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/13/2011 4:34:00 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.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 4:08:00 PM

Project: Kirtland AFB

Lab ID: 1110067-031 **Matrix:** AIR

Client Sample ID VAO597

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Chloroform	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Cyclohexane	65,000	16,000		ppbv	8000	10/13/2011 4:34:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/13/2011 4:34:00 AM
Heptane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/13/2011 4:34:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	10/13/2011 4:34:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/13/2011 4:34:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
n-Hexane	51,000	16,000		ppbv	8000	10/13/2011 4:34:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Propylene	15,000	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Styrene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Toluene	24,000	8,000		ppbv	8000	10/13/2011 4:34:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/13/2011 4:34:00 AM
Xylenes, Total	ND	24,000		ppbv	8000	10/13/2011 4:34:00 AM
Surr: 4-Bromofluorobenzene	127	70-130		%REC	8000	10/13/2011 4:34:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/21/2011 4:08:00 PM

Project: Kirtland AFB

Lab ID: 1110067-031 **Matrix:** AIR

Client Sample ID VAO597

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	6,600,000	940,000		µg/m³	8000	10/7/2011 2:33:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/7/2011 2:33:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/7/2011 2:33:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	8000	10/7/2011 2:33:00 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
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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1110067-032 **Matrix:** AIR

Client Sample ID VAO598

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.18	0.10		%	1	10/20/2011 5:39:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 5:39:00 PM
Methane	ND	0.50		%	1	10/20/2011 5:39:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 5:39:00 PM
Oxygen	20	0.10		%	1	10/20/2011 5:39:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Acetone	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Benzene	69,000	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Bromoform	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/13/2011 5:57:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1110067-032 **Matrix:** AIR

Client Sample ID VAO598

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Chloroform	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Cyclohexane	74,000	16,000		ppbv	8000	10/13/2011 5:57:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/13/2011 5:57:00 AM
Heptane	25,000	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/13/2011 5:57:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	10/13/2011 5:57:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/13/2011 5:57:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
n-Hexane	81,000	16,000		ppbv	8000	10/13/2011 5:57:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Propylene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Styrene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Toluene	83,000	8,000		ppbv	8000	10/13/2011 5:57:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/13/2011 5:57:00 AM
Xylenes, Total	ND	24,000		ppbv	8000	10/13/2011 5:57:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	8000	10/13/2011 5:57:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/22/2011 9:44:00 AM

Project: Kirtland AFB

Lab ID: 1110067-032 **Matrix:** AIR

Client Sample ID VAO598

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	6,900,000	940,000		µg/m³	8000	10/7/2011 9:23:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/7/2011 9:23:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/7/2011 9:23:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	8000	10/7/2011 9:23:00 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

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 1:43:00 PM

Project: Kirtland AFB

Lab ID: 1110067-033 **Matrix:** AIR

Client Sample ID VAO599

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.23	0.10		%	1	10/20/2011 6:50:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 6:50:00 PM
Methane	ND	0.50		%	1	10/20/2011 6:50:00 PM
Nitrogen	77	0.10		%	1	10/20/2011 6:50:00 PM
Oxygen	20	0.10		%	1	10/20/2011 6:50:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
2-Butanone	ND	400		ppbv	400	10/13/2011 9:11:00 PM
2-Hexanone	ND	400		ppbv	400	10/13/2011 9:11:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Acetone	470	400		ppbv	400	10/13/2011 9:11:00 PM
Benzene	840	400		ppbv	400	10/13/2011 9:11:00 PM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Bromoform	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Bromomethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 9:11:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 1:43:00 PM

Project: Kirtland AFB

Lab ID: 1110067-033 **Matrix:** AIR

Client Sample ID VAO599

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Chloroethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Chloroform	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Chloromethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Cyclohexane	1,200	800		ppbv	400	10/13/2011 9:11:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Ethylbenzene	ND	800		ppbv	400	10/13/2011 9:11:00 PM
Heptane	880	400		ppbv	400	10/13/2011 9:11:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 9:11:00 PM
m,p-Xylene	ND	800		ppbv	400	10/13/2011 9:11:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 9:11:00 PM
Naphthalene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
n-Hexane	1,600	800		ppbv	400	10/13/2011 9:11:00 PM
o-Xylene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Propylene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Styrene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Toluene	2,300	400		ppbv	400	10/13/2011 9:11:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Trichloroethene	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 9:11:00 PM
Xylenes, Total	ND	1,200		ppbv	400	10/13/2011 9:11:00 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	400	10/13/2011 9:11:00 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.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 1:43:00 PM

Project: Kirtland AFB

Lab ID: 1110067-033 **Matrix:** AIR

Client Sample ID VAO599

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	10/12/2011 3:02:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/12/2011 3:02:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	76,000		µg/m³	400	10/12/2011 3:02:00 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	400	10/12/2011 3:02:00 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

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 2:28:00 PM

Project: Kirtland AFB

Lab ID: 1110067-034 **Matrix:** AIR

Client Sample ID VAO600

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.18	0.10		%	1	10/20/2011 7:14:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 7:14:00 PM
Methane	ND	0.50		%	1	10/20/2011 7:14:00 PM
Nitrogen	78	0.10		%	1	10/20/2011 7:14:00 PM
Oxygen	20	0.10		%	1	10/20/2011 7:14:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
2-Butanone	ND	800		ppbv	800	10/17/2011 6:52:00 PM
2-Hexanone	ND	800		ppbv	800	10/17/2011 6:52:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Acetone	1,000	800		ppbv	800	10/17/2011 6:52:00 PM
Benzene	9,400	800		ppbv	800	10/17/2011 6:52:00 PM
Benzyl chloride	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Bromoform	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Bromomethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Carbon disulfide	ND	800		ppbv	800	10/17/2011 6:52:00 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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RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 2:28:00 PM

Project: Kirtland AFB

Lab ID: 1110067-034 **Matrix:** AIR

Client Sample ID VAO600

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Chlorobenzene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Chloroethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Chloroform	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Chloromethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Cyclohexane	32,000	1,600		ppbv	800	10/17/2011 6:52:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Ethyl acetate	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Ethylbenzene	950	1,600	J	ppbv	800	10/17/2011 6:52:00 PM
Heptane	13,000	800		ppbv	800	10/17/2011 6:52:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/17/2011 6:52:00 PM
m,p-Xylene	2,800	1,600		ppbv	800	10/17/2011 6:52:00 PM
Methylene chloride	ND	4,000		ppbv	800	10/17/2011 6:52:00 PM
Naphthalene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
n-Hexane	23,000	1,600		ppbv	800	10/17/2011 6:52:00 PM
o-Xylene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Propylene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Styrene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Toluene	29,000	800		ppbv	800	10/17/2011 6:52:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Trichloroethene	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Vinyl acetate	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Vinyl chloride	ND	800		ppbv	800	10/17/2011 6:52:00 PM
Xylenes, Total	2,800	2,400		ppbv	800	10/17/2011 6:52:00 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	800	10/17/2011 6:52:00 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

Revision v1

RTI LABORATORIES, INC.

RTI
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 2:28:00 PM

Project: Kirtland AFB

Lab ID: 1110067-034 **Matrix:** AIR

Client Sample ID VAO600

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	2,500,000	940,000		µg/m³	8000	10/7/2011 5:55:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/7/2011 5:55:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/7/2011 5:55:00 PM
Surr: 4-Bromofluorobenzene	121	70-130		%REC	8000	10/7/2011 5:55:00 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

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:01:00 PM

Project: Kirtland AFB

Lab ID: 1110067-035 **Matrix:** AIR

Client Sample ID VAO601

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.25	0.10		%	1	10/20/2011 7:42:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 7:42:00 PM
Methane	ND	0.50		%	1	10/20/2011 7:42:00 PM
Nitrogen	79	0.10		%	1	10/20/2011 7:42:00 PM
Oxygen	20	0.10		%	1	10/20/2011 7:42:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,1-Dichloroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,1-Dichloroethene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,2-Dibromoethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,2-Dichloroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,2-Dichloropropane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,3-Butadiene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
2-Butanone	ND	400		ppbv	400	10/13/2011 11:25:00 PM
2-Hexanone	ND	400		ppbv	400	10/13/2011 11:25:00 PM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Acetone	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Benzene	2,500	400		ppbv	400	10/13/2011 11:25:00 PM
Benzyl chloride	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Bromodichloromethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Bromoform	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Bromomethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Carbon disulfide	ND	400		ppbv	400	10/13/2011 11:25:00 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

Revision v1

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:01:00 PM

Project: Kirtland AFB

Lab ID: 1110067-035 **Matrix:** AIR

Client Sample ID VAO601

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Chlorobenzene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Chlorodibromomethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Chloroethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Chloroform	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Chloromethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Cyclohexane	4,600	800		ppbv	400	10/13/2011 11:25:00 PM
Dichlorodifluoromethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Ethyl acetate	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Ethylbenzene	590	800	J	ppbv	400	10/13/2011 11:25:00 PM
Heptane	5,100	400		ppbv	400	10/13/2011 11:25:00 PM
Hexachlorobutadiene	ND	800		ppbv	400	10/13/2011 11:25:00 PM
m,p-Xylene	2,000	800		ppbv	400	10/13/2011 11:25:00 PM
Methylene chloride	ND	2,000		ppbv	400	10/13/2011 11:25:00 PM
Naphthalene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
n-Hexane	2,800	800		ppbv	400	10/13/2011 11:25:00 PM
o-Xylene	520	400		ppbv	400	10/13/2011 11:25:00 PM
Propylene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Styrene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Tetrachloroethene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Tetrahydrofuran	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Toluene	12,000	400		ppbv	400	10/13/2011 11:25:00 PM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Trichloroethene	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Trichlorofluoromethane	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Vinyl acetate	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Vinyl chloride	ND	400		ppbv	400	10/13/2011 11:25:00 PM
Xylenes, Total	2,500	1,200		ppbv	400	10/13/2011 11:25:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	400	10/13/2011 11:25:00 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

Revision v1

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:01:00 PM

Project: Kirtland AFB

Lab ID: 1110067-035 **Matrix:** AIR

Client Sample ID VAO601

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	270,000	47,000		µg/m³	400	10/8/2011 4:55:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/8/2011 4:55:00 AM
C9-C12 Aliphatic Hydrocarbons	82,000	76,000		µg/m³	400	10/8/2011 4:55:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	10/8/2011 4:55:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:39:00 PM

Project: Kirtland AFB

Lab ID: 1110067-036 **Matrix:** AIR

Client Sample ID VAO602

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.85	0.10		%	1	10/20/2011 8:00:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 8:00:00 PM
Methane	ND	0.50		%	1	10/20/2011 8:00:00 PM
Nitrogen	79	0.10		%	1	10/20/2011 8:00:00 PM
Oxygen	18	0.10		%	1	10/20/2011 8:00:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
2-Butanone	420	400		ppbv	400	10/14/2011 12:19:00 AM
2-Hexanone	ND	400		ppbv	400	10/14/2011 12:19:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Acetone	430	400		ppbv	400	10/14/2011 12:19:00 AM
Benzene	3,100	400		ppbv	400	10/14/2011 12:19:00 AM
Benzyl chloride	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Bromoform	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Bromomethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Carbon disulfide	ND	400		ppbv	400	10/14/2011 12:19:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:39:00 PM

Project: Kirtland AFB

Lab ID: 1110067-036 **Matrix:** AIR

Client Sample ID VAO602

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Chlorobenzene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Chloroethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Chloroform	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Chloromethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Cyclohexane	4,700	800		ppbv	400	10/14/2011 12:19:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Ethyl acetate	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Ethylbenzene	610	800	J	ppbv	400	10/14/2011 12:19:00 AM
Heptane	4,600	400		ppbv	400	10/14/2011 12:19:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/14/2011 12:19:00 AM
m,p-Xylene	2,000	800		ppbv	400	10/14/2011 12:19:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/14/2011 12:19:00 AM
Naphthalene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
n-Hexane	3,100	800		ppbv	400	10/14/2011 12:19:00 AM
o-Xylene	530	400		ppbv	400	10/14/2011 12:19:00 AM
Propylene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Styrene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Toluene	12,000	400		ppbv	400	10/14/2011 12:19:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Trichloroethene	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Vinyl acetate	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Vinyl chloride	ND	400		ppbv	400	10/14/2011 12:19:00 AM
Xylenes, Total	2,500	1,200		ppbv	400	10/14/2011 12:19:00 AM
Surr: 4-Bromofluorobenzene	55.9	70-130	S	%REC	400	10/14/2011 12:19:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:39:00 PM

Project: Kirtland AFB

Lab ID: 1110067-036 **Matrix:** AIR

Client Sample ID VAO602

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	240,000	47,000		µg/m³	400	10/8/2011 5:45:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/8/2011 5:45:00 AM
C9-C12 Aliphatic Hydrocarbons	71,000	76,000	J	µg/m³	400	10/8/2011 5:45:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	400	10/8/2011 5:45:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:39:00 PM

Project: Kirtland AFB

Lab ID: 1110067-037 **Matrix:** AIR

Client Sample ID VAO603

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.41	0.10		%	1	10/20/2011 8:20:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 8:20:00 PM
Methane	ND	0.50		%	1	10/20/2011 8:20:00 PM
Nitrogen	77	0.10		%	1	10/20/2011 8:20:00 PM
Oxygen	20	0.10		%	1	10/20/2011 8:20:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
2-Butanone	ND	400		ppbv	400	10/14/2011 1:06:00 AM
2-Hexanone	ND	400		ppbv	400	10/14/2011 1:06:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Acetone	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Benzene	2,500	400		ppbv	400	10/14/2011 1:06:00 AM
Benzyl chloride	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Bromoform	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Bromomethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Carbon disulfide	ND	400		ppbv	400	10/14/2011 1:06:00 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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:39:00 PM

Project: Kirtland AFB

Lab ID: 1110067-037 **Matrix:** AIR

Client Sample ID VAO603

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Chlorobenzene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Chloroethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Chloroform	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Chloromethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Cyclohexane	3,800	800		ppbv	400	10/14/2011 1:06:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Ethyl acetate	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Ethylbenzene	410	800	J	ppbv	400	10/14/2011 1:06:00 AM
Heptane	3,300	400		ppbv	400	10/14/2011 1:06:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/14/2011 1:06:00 AM
m,p-Xylene	1,300	800		ppbv	400	10/14/2011 1:06:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/14/2011 1:06:00 AM
Naphthalene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
n-Hexane	2,600	800		ppbv	400	10/14/2011 1:06:00 AM
o-Xylene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Propylene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Styrene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Toluene	6,700	400		ppbv	400	10/14/2011 1:06:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Trichloroethene	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Vinyl acetate	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Vinyl chloride	ND	400		ppbv	400	10/14/2011 1:06:00 AM
Xylenes, Total	1,300	1,200		ppbv	400	10/14/2011 1:06:00 AM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	400	10/14/2011 1:06:00 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

Revision v1

RTI LABORATORIES, INC.

RTI
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/26/2011 3:39:00 PM

Project: Kirtland AFB

Lab ID: 1110067-037 **Matrix:** AIR

Client Sample ID VAO603

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	270,000	47,000		µg/m³	400	10/8/2011 6:34:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/8/2011 6:34:00 AM
C9-C12 Aliphatic Hydrocarbons	98,000	76,000		µg/m³	400	10/8/2011 6:34:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	400	10/8/2011 6:34:00 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

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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 8:31:00 AM

Project: Kirtland AFB

Lab ID: 1110067-038 **Matrix:** AIR

Client Sample ID VAO604

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.84	0.10		%	1	10/20/2011 8:39:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 8:39:00 PM
Methane	ND	0.50		%	1	10/20/2011 8:39:00 PM
Nitrogen	80	0.10		%	1	10/20/2011 8:39:00 PM
Oxygen	17	0.10		%	1	10/20/2011 8:39:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Acetone	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Benzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Bromoform	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/14/2011 11:41:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 8:31:00 AM

Project: Kirtland AFB

Lab ID: 1110067-038 **Matrix:** AIR

Client Sample ID VAO604

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Chloroform	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Cyclohexane	61,000	16,000		ppbv	8000	10/14/2011 11:41:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/14/2011 11:41:00 AM
Heptane	13,000	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/14/2011 11:41:00 AM
m,p-Xylene	ND	16,000		ppbv	8000	10/14/2011 11:41:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/14/2011 11:41:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
n-Hexane	56,000	16,000		ppbv	8000	10/14/2011 11:41:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Propylene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Styrene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Toluene	12,000	8,000		ppbv	8000	10/14/2011 11:41:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/14/2011 11:41:00 AM
Xylenes, Total	ND	24,000		ppbv	8000	10/14/2011 11:41:00 AM
Surr: 4-Bromofluorobenzene	121	70-130		%REC	8000	10/14/2011 11:41:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 8:31:00 AM

Project: Kirtland AFB

Lab ID: 1110067-038 **Matrix:** AIR

Client Sample ID VAO604

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	4,200,000	940,000		µg/m³	8000	10/7/2011 9:32:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/7/2011 9:32:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/7/2011 9:32:00 PM
Surr: 4-Bromofluorobenzene	120	70-130		%REC	8000	10/7/2011 9:32:00 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.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 9:16:00 AM

Project: Kirtland AFB

Lab ID: 1110067-039 **Matrix:** AIR

Client Sample ID VAO605

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.34	0.10		%	1	10/20/2011 8:57:00 PM
Carbon Monoxide	ND	0.10		%	1	10/20/2011 8:57:00 PM
Methane	ND	0.50		%	1	10/20/2011 8:57:00 PM
Nitrogen	79	0.10		%	1	10/20/2011 8:57:00 PM
Oxygen	18	0.10		%	1	10/20/2011 8:57:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,3-Butadiene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
2-Butanone	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
2-Hexanone	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Acetone	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Benzene	140,000	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Benzyl chloride	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Bromodichloromethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Bromoform	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Bromomethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Carbon disulfide	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM

Qualifiers:

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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

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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 9:16:00 AM

Project: Kirtland AFB

Lab ID: 1110067-039 **Matrix:** AIR

Client Sample ID VAO605

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Chlorobenzene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Chloroethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Chloroform	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Chloromethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Cyclohexane	400,000	16,000		ppbv	8000	10/14/2011 12:22:00 PM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Ethyl acetate	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Ethylbenzene	ND	16,000		ppbv	8000	10/14/2011 12:22:00 PM
Heptane	180,000	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/14/2011 12:22:00 PM
m,p-Xylene	11,000	16,000	J	ppbv	8000	10/14/2011 12:22:00 PM
Methylene chloride	ND	40,000		ppbv	8000	10/14/2011 12:22:00 PM
Naphthalene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
n-Hexane	450,000	16,000		ppbv	8000	10/14/2011 12:22:00 PM
o-Xylene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Propylene	13,000	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Styrene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Tetrachloroethene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Toluene	180,000	8,000		ppbv	8000	10/14/2011 12:22:00 PM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Trichloroethene	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Vinyl acetate	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Vinyl chloride	ND	8,000		ppbv	8000	10/14/2011 12:22:00 PM
Xylenes, Total	11,000	24,000	J	ppbv	8000	10/14/2011 12:22:00 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	10/14/2011 12:22:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/27/2011 9:16:00 AM

Project: Kirtland AFB

Lab ID: 1110067-039 **Matrix:** AIR

Client Sample ID VAO605

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	9,300,000	940,000		µg/m³	8000	10/7/2011 10:16:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/7/2011 10:16:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/7/2011 10:16:00 PM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	8000	10/7/2011 10:16:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 2:30:00 PM

Project: Kirtland AFB

Lab ID: 1110067-040 **Matrix:** AIR

Client Sample ID VAO696

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.0	0.10		%	1	10/17/2011 3:58:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 3:58:00 PM
Methane	ND	0.50		%	1	10/17/2011 3:58:00 PM
Nitrogen	80	0.10		%	1	10/17/2011 3:58:00 PM
Oxygen	16	0.10		%	1	10/17/2011 3:58:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,1,2,2-Tetrachloroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,1,2-Trichloroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,1-Dichloroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,1-Dichloroethene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,2,4-Trichlorobenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,2,4-Trimethylbenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,2-Dibromoethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,2-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,2-Dichloroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,2-Dichloropropane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,3,5-Trimethylbenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,3-Butadiene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,3-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
1,4-Dichlorobenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
2-Butanone	ND	400		ppbv	400	10/14/2011 9:37:00 AM
2-Hexanone	ND	400		ppbv	400	10/14/2011 9:37:00 AM
4-Methyl-2-pentanone	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Acetone	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Benzene	1,700	400		ppbv	400	10/14/2011 9:37:00 AM
Benzyl chloride	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Bromodichloromethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Bromoform	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Bromomethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Carbon disulfide	ND	400		ppbv	400	10/14/2011 9:37:00 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

Revision v1

RTI LABORATORIES, INC.

RTI
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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 2:30:00 PM

Project: Kirtland AFB

Lab ID: 1110067-040 **Matrix:** AIR

Client Sample ID VAO696

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Chlorobenzene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Chlorodibromomethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Chloroethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Chloroform	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Chloromethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
cis-1,2-Dichloroethene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
cis-1,3-dichloropropene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Cyclohexane	3,800	800		ppbv	400	10/14/2011 9:37:00 AM
Dichlorodifluoromethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Ethyl acetate	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Ethylbenzene	ND	800		ppbv	400	10/14/2011 9:37:00 AM
Heptane	2,400	400		ppbv	400	10/14/2011 9:37:00 AM
Hexachlorobutadiene	ND	800		ppbv	400	10/14/2011 9:37:00 AM
m,p-Xylene	960	800		ppbv	400	10/14/2011 9:37:00 AM
Methylene chloride	ND	2,000		ppbv	400	10/14/2011 9:37:00 AM
Naphthalene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
n-Hexane	2,400	800		ppbv	400	10/14/2011 9:37:00 AM
o-Xylene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Propylene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Styrene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
tert-Butyl Methyl Ether	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Tetrachloroethene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Tetrahydrofuran	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Toluene	3,800	400		ppbv	400	10/14/2011 9:37:00 AM
trans-1,2-Dichloroethene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
trans-1,3-dichloropropene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Trichloroethene	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Trichlorofluoromethane	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Vinyl acetate	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Vinyl chloride	ND	400		ppbv	400	10/14/2011 9:37:00 AM
Xylenes, Total	960	1,200	J	ppbv	400	10/14/2011 9:37:00 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	400	10/14/2011 9:37:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 2:30:00 PM

Project: Kirtland AFB

Lab ID: 1110067-040 **Matrix:** AIR

Client Sample ID VAO696

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	10/8/2011 11:25:00 AM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	10/8/2011 11:25:00 AM
C9-C12 Aliphatic Hydrocarbons	85,000	76,000		µg/m³	400	10/8/2011 11:25:00 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	400	10/8/2011 11:25:00 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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Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 2:44:00 PM

Project: Kirtland AFB

Lab ID: 1110067-041 **Matrix:** AIR

Client Sample ID VAO697

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	7.5	0.10		%	1	10/17/2011 4:19:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 4:19:00 PM
Methane	ND	0.50		%	1	10/17/2011 4:19:00 PM
Nitrogen	86	0.10		%	1	10/17/2011 4:19:00 PM
Oxygen	4.0	0.10		%	1	10/17/2011 4:19:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,1,2,2-Tetrachloroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,1,2-Trichloroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,1-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,1-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,2,4-Trichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,2,4-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,2-Dibromoethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,2-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,2-Dichloroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,2-Dichloropropane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,3,5-Trimethylbenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,3-Butadiene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,3-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
1,4-Dichlorobenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
2-Butanone	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
2-Hexanone	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
4-Methyl-2-pentanone	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Acetone	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Benzene	510,000	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Benzyl chloride	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Bromodichloromethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Bromoform	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Bromomethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Carbon disulfide	ND	20,000		ppbv	20000	10/14/2011 10:19:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 2:44:00 PM

Project: Kirtland AFB

Lab ID: 1110067-041 **Matrix:** AIR

Client Sample ID VAO697

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Chlorobenzene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Chlorodibromomethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Chloroethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Chloroform	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Chloromethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
cis-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
cis-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Cyclohexane	1,200,000	40,000		ppbv	20000	10/14/2011 10:19:00 AM
Dichlorodifluoromethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Ethyl acetate	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Ethylbenzene	37,000	40,000	J	ppbv	20000	10/14/2011 10:19:00 AM
Heptane	590,000	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Hexachlorobutadiene	ND	40,000		ppbv	20000	10/14/2011 10:19:00 AM
m,p-Xylene	65,000	40,000		ppbv	20000	10/14/2011 10:19:00 AM
Methylene chloride	ND	100,000		ppbv	20000	10/14/2011 10:19:00 AM
Naphthalene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
n-Hexane	1,100,000	40,000		ppbv	20000	10/14/2011 10:19:00 AM
o-Xylene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Propylene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Styrene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
tert-Butyl Methyl Ether	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Tetrachloroethene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Tetrahydrofuran	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Toluene	130,000	20,000		ppbv	20000	10/14/2011 10:19:00 AM
trans-1,2-Dichloroethene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
trans-1,3-dichloropropene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Trichloroethene	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Trichlorofluoromethane	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Vinyl acetate	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Vinyl chloride	ND	20,000		ppbv	20000	10/14/2011 10:19:00 AM
Xylenes, Total	65,000	60,000		ppbv	20000	10/14/2011 10:19:00 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	20000	10/14/2011 10:19:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 2:44:00 PM

Project: Kirtland AFB

Lab ID: 1110067-041 **Matrix:** AIR

Client Sample ID VAO697

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	41,000,000	2,300,000		µg/m³	20000	10/11/2011 6:55:00 PM
C9-C10 Aromatic Hydrocarbons	ND	2,700,000		µg/m³	20000	10/11/2011 6:55:00 PM
C9-C12 Aliphatic Hydrocarbons	670,000	3,800,000	J	µg/m³	20000	10/11/2011 6:55:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	20000	10/11/2011 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 3:37:00 PM

Project: Kirtland AFB

Lab ID: 1110067-042 **Matrix:** AIR

Client Sample ID VAO698

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.1	0.10		%	1	10/17/2011 4:38:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 4:38:00 PM
Methane	ND	0.50		%	1	10/17/2011 4:38:00 PM
Nitrogen	80	0.10		%	1	10/17/2011 4:38:00 PM
Oxygen	17	0.10		%	1	10/17/2011 4:38:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,1,2,2-Tetrachloroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,1,2-Trichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,1-Dichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,1-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,2,4-Trichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,2,4-Trimethylbenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,2-Dibromoethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,2-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,2-Dichloroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,2-Dichloropropane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,3,5-Trimethylbenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,3-Butadiene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,3-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
1,4-Dichlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
2-Butanone	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
2-Hexanone	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
4-Methyl-2-pentanone	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Acetone	53,000	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Benzene	110,000	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Benzyl chloride	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Bromodichloromethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Bromoform	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Bromomethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Carbon disulfide	ND	8,000		ppbv	8000	10/14/2011 11:01:00 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

Revision v1

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 3:37:00 PM

Project: Kirtland AFB

Lab ID: 1110067-042 **Matrix:** AIR

Client Sample ID VAO698

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Chlorobenzene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Chlorodibromomethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Chloroethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Chloroform	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Chloromethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
cis-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
cis-1,3-dichloropropene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Cyclohexane	220,000	16,000		ppbv	8000	10/14/2011 11:01:00 AM
Dichlorodifluoromethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Ethyl acetate	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Ethylbenzene	ND	16,000		ppbv	8000	10/14/2011 11:01:00 AM
Heptane	100,000	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Hexachlorobutadiene	ND	16,000		ppbv	8000	10/14/2011 11:01:00 AM
m,p-Xylene	16,000	16,000	J	ppbv	8000	10/14/2011 11:01:00 AM
Methylene chloride	ND	40,000		ppbv	8000	10/14/2011 11:01:00 AM
Naphthalene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
n-Hexane	240,000	16,000		ppbv	8000	10/14/2011 11:01:00 AM
o-Xylene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Propylene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Styrene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
tert-Butyl Methyl Ether	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Tetrachloroethene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Tetrahydrofuran	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Toluene	100,000	8,000		ppbv	8000	10/14/2011 11:01:00 AM
trans-1,2-Dichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
trans-1,3-dichloropropene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Trichloroethene	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Trichlorofluoromethane	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Vinyl acetate	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Vinyl chloride	ND	8,000		ppbv	8000	10/14/2011 11:01:00 AM
Xylenes, Total	16,000	24,000	J	ppbv	8000	10/14/2011 11:01:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	10/14/2011 11:01:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 3:37:00 PM

Project: Kirtland AFB

Lab ID: 1110067-042 **Matrix:** AIR

Client Sample ID VAO698

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	6,300,000	940,000		µg/m³	8000	10/8/2011 12:26:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/8/2011 12:26:00 AM
C9-C12 Aliphatic Hydrocarbons	230,000	1,500,000	J	µg/m³	8000	10/8/2011 12:26:00 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	8000	10/8/2011 12:26:00 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#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 4:07:00 PM

Project: Kirtland AFB

Lab ID: 1110067-043 **Matrix:** AIR

Client Sample ID VAO699

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
2-Butanone	ND	800		ppbv	800	10/12/2011 11:57:00 PM
2-Hexanone	ND	800		ppbv	800	10/12/2011 11:57:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Acetone	1,200	800		ppbv	800	10/12/2011 11:57:00 PM
Benzene	9,200	800		ppbv	800	10/12/2011 11:57:00 PM
Benzyl chloride	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Bromoform	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Bromomethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Carbon disulfide	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Carbon tetrachloride	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Chlorobenzene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Chloroethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Chloroform	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Chloromethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/12/2011 11:57:00 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

Revision v1

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 4:07:00 PM

Project: Kirtland AFB

Lab ID: 1110067-043 **Matrix:** AIR

Client Sample ID VAO699

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Cyclohexane	24,000	1,600		ppbv	800	10/12/2011 11:57:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Ethyl acetate	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Ethylbenzene	1,800	1,600		ppbv	800	10/12/2011 11:57:00 PM
Heptane	15,000	800		ppbv	800	10/12/2011 11:57:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/12/2011 11:57:00 PM
m,p-Xylene	4,400	1,600		ppbv	800	10/12/2011 11:57:00 PM
Methylene chloride	2,000	4,000	J	ppbv	800	10/12/2011 11:57:00 PM
Naphthalene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
n-Hexane	17,000	1,600		ppbv	800	10/12/2011 11:57:00 PM
o-Xylene	940	800		ppbv	800	10/12/2011 11:57:00 PM
Propylene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Styrene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Toluene	11,000	800		ppbv	800	10/12/2011 11:57:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Trichloroethene	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Vinyl acetate	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Vinyl chloride	ND	800		ppbv	800	10/12/2011 11:57:00 PM
Xylenes, Total	5,300	2,400		ppbv	800	10/12/2011 11:57:00 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	800	10/12/2011 11:57:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	1,000,000	94,000		µg/m³	800	10/8/2011 12:11:00 PM
C9-C10 Aromatic Hydrocarbons	170,000	110,000		µg/m³	800	10/8/2011 12:11:00 PM
C9-C12 Aliphatic Hydrocarbons	220,000	150,000		µg/m³	800	10/8/2011 12:11:00 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	800	10/8/2011 12:11:00 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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31628 Glendale St.
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 11:40:00 AM

Project: Kirtland AFB

Lab ID: 1110067-044 **Matrix:** AIR

Client Sample ID VAO700

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	5.2	0.10		%	1	10/17/2011 5:03:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 5:03:00 PM
Methane	ND	0.50		%	1	10/17/2011 5:03:00 PM
Nitrogen	83	0.10		%	1	10/17/2011 5:03:00 PM
Oxygen	11	0.10		%	1	10/17/2011 5:03:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
2-Butanone	ND	800		ppbv	800	10/11/2011 4:51:00 PM
2-Hexanone	ND	800		ppbv	800	10/11/2011 4:51:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Acetone	980	800		ppbv	800	10/11/2011 4:51:00 PM
Benzene	20,000	800		ppbv	800	10/11/2011 4:51:00 PM
Benzyl chloride	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Bromoform	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Bromomethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Carbon disulfide	ND	800		ppbv	800	10/11/2011 4:51:00 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

Revision v1

RTI LABORATORIES, INC.

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

Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 11:40:00 AM

Project: Kirtland AFB

Lab ID: 1110067-044 **Matrix:** AIR

Client Sample ID VAO700

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Chlorobenzene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Chloroethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Chloroform	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Chloromethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Cyclohexane	11,000	1,600		ppbv	800	10/11/2011 4:51:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Ethyl acetate	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Ethylbenzene	ND	1,600		ppbv	800	10/11/2011 4:51:00 PM
Heptane	3,800	800		ppbv	800	10/11/2011 4:51:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/11/2011 4:51:00 PM
m,p-Xylene	930	1,600	J	ppbv	800	10/11/2011 4:51:00 PM
Methylene chloride	ND	4,000		ppbv	800	10/11/2011 4:51:00 PM
Naphthalene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
n-Hexane	7,000	1,600		ppbv	800	10/11/2011 4:51:00 PM
o-Xylene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Propylene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Styrene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Toluene	4,600	800		ppbv	800	10/11/2011 4:51:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Trichloroethene	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Vinyl acetate	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Vinyl chloride	ND	800		ppbv	800	10/11/2011 4:51:00 PM
Xylenes, Total	930	2,400	J	ppbv	800	10/11/2011 4:51:00 PM
Surr: 4-Bromofluorobenzene	125	70-130		%REC	800	10/11/2011 4:51:00 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

Revision v1

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 11:40:00 AM

Project: Kirtland AFB

Lab ID: 1110067-044 **Matrix:** AIR

Client Sample ID VAO700

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	3,000,000	940,000		µg/m³	8000	10/8/2011 1:52:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/8/2011 1:52:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/8/2011 1:52:00 AM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	8000	10/8/2011 1:52:00 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
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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 11:40:00 AM

Project: Kirtland AFB

Lab ID: 1110067-045 **Matrix:** AIR

Client Sample ID VAO701

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	5.0	0.10		%	1	10/17/2011 5:22:00 PM
Carbon Monoxide	ND	0.10		%	1	10/17/2011 5:22:00 PM
Methane	ND	0.50		%	1	10/17/2011 5:22:00 PM
Nitrogen	83	0.10		%	1	10/17/2011 5:22:00 PM
Oxygen	11	0.10		%	1	10/17/2011 5:22:00 PM
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,1,2,2-Tetrachloroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,1,2-Trichloroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,1-Dichloroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,1-Dichloroethene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,2,4-Trichlorobenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,2,4-Trimethylbenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,2-Dibromoethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,2-Dichlorobenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,2-Dichloroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,2-Dichloropropane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,3,5-Trimethylbenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,3-Butadiene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,3-Dichlorobenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
1,4-Dichlorobenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
2-Butanone	ND	800		ppbv	800	10/11/2011 5:35:00 PM
2-Hexanone	ND	800		ppbv	800	10/11/2011 5:35:00 PM
4-Methyl-2-pentanone	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Acetone	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Benzene	19,000	800		ppbv	800	10/11/2011 5:35:00 PM
Benzyl chloride	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Bromodichloromethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Bromoform	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Bromomethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Carbon disulfide	ND	800		ppbv	800	10/11/2011 5:35:00 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
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RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 11:40:00 AM

Project: Kirtland AFB

Lab ID: 1110067-045 **Matrix:** AIR

Client Sample ID VAO701

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Carbon tetrachloride	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Chlorobenzene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Chlorodibromomethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Chloroethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Chloroform	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Chloromethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
cis-1,2-Dichloroethene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
cis-1,3-dichloropropene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Cyclohexane	8,400	1,600		ppbv	800	10/11/2011 5:35:00 PM
Dichlorodifluoromethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Ethyl acetate	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Ethylbenzene	ND	1,600		ppbv	800	10/11/2011 5:35:00 PM
Heptane	3,700	800		ppbv	800	10/11/2011 5:35:00 PM
Hexachlorobutadiene	ND	1,600		ppbv	800	10/11/2011 5:35:00 PM
m,p-Xylene	1,100	1,600	J	ppbv	800	10/11/2011 5:35:00 PM
Methylene chloride	ND	4,000		ppbv	800	10/11/2011 5:35:00 PM
Naphthalene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
n-Hexane	4,100	1,600		ppbv	800	10/11/2011 5:35:00 PM
o-Xylene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Propylene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Styrene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
tert-Butyl Methyl Ether	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Tetrachloroethene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Tetrahydrofuran	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Toluene	3,100	800		ppbv	800	10/11/2011 5:35:00 PM
trans-1,2-Dichloroethene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
trans-1,3-dichloropropene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Trichloroethene	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Trichlorofluoromethane	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Vinyl acetate	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Vinyl chloride	ND	800		ppbv	800	10/11/2011 5:35:00 PM
Xylenes, Total	1,100	2,400	J	ppbv	800	10/11/2011 5:35:00 PM
Surr: 4-Bromofluorobenzene	119	70-130		%REC	800	10/11/2011 5:35:00 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

Revision v1

RTI LABORATORIES, INC.

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Livonia, MI 48150
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Website: www.rtilabs.com

Analytical Report

(consolidated)

WO#: **1110067**

Date Reported: **10/21/2011**

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 11:40:00 AM

Project: Kirtland AFB

Lab ID: 1110067-045 **Matrix:** AIR

Client Sample ID VAO701

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MASS APH AIR				**MA_APH**		Analyst: **RH3**
AIR-PHASE PETROLEUM HYDROCARBONS						
C5-C8 Aliphatic Hydrocarbons	2,900,000	940,000		µg/m³	8000	10/8/2011 2:36:00 AM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	10/8/2011 2:36:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	10/8/2011 2:36:00 AM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	8000	10/8/2011 2:36:00 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#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 8:00:00 AM

Project: Kirtland AFB

Lab ID: 1110067-046 **Matrix:** AIR

Client Sample ID VA8040-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
1,1,1-Trichloroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,1,2,2-Tetrachloroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,1,2-Trichloroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,1-Dichloroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,1-Dichloroethene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,2,4-Trichlorobenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,2,4-Trimethylbenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,2-Dibromoethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,2-Dichlorobenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,2-Dichloroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,2-Dichloropropane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,3,5-Trimethylbenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,3-Butadiene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,3-Dichlorobenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
1,4-Dichlorobenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
2-Butanone	10	8.0		ppbv	8	10/11/2011 4:07:00 PM
2-Hexanone	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
4-Methyl-2-pentanone	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Acetone	63	8.0		ppbv	8	10/11/2011 4:07:00 PM
Benzene	9.4	8.0		ppbv	8	10/11/2011 4:07:00 PM
Benzyl chloride	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Bromodichloromethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Bromoform	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Bromomethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Carbon disulfide	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Carbon tetrachloride	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Chlorobenzene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Chlorodibromomethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Chloroethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Chloroform	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Chloromethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
cis-1,2-Dichloroethene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
cis-1,3-dichloropropene	ND	8.0		ppbv	8	10/11/2011 4:07:00 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
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Analytical Report

(consolidated)

WO#: 1110067

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 9/20/2011 8:00:00 AM

Project: Kirtland AFB

Lab ID: 1110067-046 **Matrix:** AIR

Client Sample ID VA8040-TB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS				**TO-15**		Analyst: **RH3**
Cyclohexane	24	16		ppbv	8	10/11/2011 4:07:00 PM
Dichlorodifluoromethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Ethyl acetate	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Ethylbenzene	ND	16		ppbv	8	10/11/2011 4:07:00 PM
Heptane	19	8.0		ppbv	8	10/11/2011 4:07:00 PM
Hexachlorobutadiene	ND	16		ppbv	8	10/11/2011 4:07:00 PM
m,p-Xylene	9.4	16	J	ppbv	8	10/11/2011 4:07:00 PM
Methylene chloride	24	40	J	ppbv	8	10/11/2011 4:07:00 PM
Naphthalene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
n-Hexane	21	16		ppbv	8	10/11/2011 4:07:00 PM
o-Xylene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Propylene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Styrene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
tert-Butyl Methyl Ether	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Tetrachloroethene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Tetrahydrofuran	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Toluene	36	8.0		ppbv	8	10/11/2011 4:07:00 PM
trans-1,2-Dichloroethene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
trans-1,3-dichloropropene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Trichloroethene	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Trichlorofluoromethane	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Vinyl acetate	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Vinyl chloride	ND	8.0		ppbv	8	10/11/2011 4:07:00 PM
Xylenes, Total	9.4	24	J	ppbv	8	10/11/2011 4:07:00 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	8	10/11/2011 4:07:00 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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31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000 FAX: 7344225342
Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43279

Sample ID: **BLANK 100511 VOA** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43279**
Client ID: **PBW** Batch ID: **R43279** TestNo: **MA_APH** Analysis Date: **10/5/2011** SeqNo: **844365**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	80	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	100		89.50		116	70	130				

Sample ID: **1110067-007BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43279**
Client ID: **VAO390** Batch ID: **R43279** TestNo: **MA_APH** Analysis Date: **10/5/2011** SeqNo: **844368**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	1,200,000	940,000						361,900	106	30	R
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	870,000		716,000		121	70	130		0	30	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43341

Sample ID: **Blank 100611 VOA** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43341**
Client ID: **PBW** Batch ID: **R43341** TestNo: **MA_APH** Analysis Date: **10/6/2011** SeqNo: **846006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	71	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	110		89.50		118	70	130				

Sample ID: **1110067-025BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43341**
Client ID: **VAO454** Batch ID: **R43341** TestNo: **MA_APH** Analysis Date: **10/6/2011** SeqNo: **846010**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	22,000,000	940,000						22,840,000	2.35	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	650,000	1,500,000						653,400	0.0122	30	J
Surr: 4-Bromofluorobenzene	790,000		716,000		110	70	130		0	30	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: **1110067**
21-Oct-11

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

BatchID: **R43342**

Sample ID: **Blank VOA9 10071** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43342**
Client ID: **PBW** Batch ID: **R43342** TestNo: **MA_APH** Analysis Date: **10/7/2011** SeqNo: **846020**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	78	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	110		89.50		123	70	130				

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43399

Sample ID: **BLANK VOA1 10101** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **PBW** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/10/2011** SeqNo: **847558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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									

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43399

Sample ID: **BLANK VOA1 10101** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **PBW** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/10/2011** SeqNo: **847558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
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									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
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									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43399

Sample ID: **BLANK VOA1 10101** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **PBW** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/10/2011** SeqNo: **847558**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	15		12.50		116	70	130				

Sample ID: **1109988-013BDUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **ZZZZZZ** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/11/2011** SeqNo: **847575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43399

Sample ID: **1109988-013BDUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **ZZZZZZ** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/11/2011** SeqNo: **847575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	130,000	8,000						127,400	0.501	25	
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	
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	340,000	16,000						338,200	1.29	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	
Ethyl acetate	ND	8,000						0	0	25	
Ethylbenzene	ND	16,000						0	0	25	
Heptane	180,000	8,000						178,800	0.980	25	
Hexachlorobutadiene	ND	16,000						0	0	25	

Qualifiers:
- */X Value exceeds Maximum Contaminant Level
- J Estimated concentration
- R RPD outside accepted recovery limits
- E Value above quantitation range
- M Manual Integration used to determine area response
- RL Reporting Limit
- H Holding times for preparation or analysis exceede
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43399

Sample ID: **1109988-013BDUP** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43399**
Client ID: **ZZZZZZ** Batch ID: **R43399** TestNo: **TO-15** Analysis Date: **10/11/2011** SeqNo: **847575**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	15,000	16,000						15,520	1.04	25	J
Methylene chloride	ND	40,000						0	0	25	
Naphthalene	ND	8,000						0	0	25	
n-Hexane	210,000	16,000						203,700	2.52	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	220,000	8,000						219,700	0.0728	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	15,000	24,000						15,520	1.04	25	J
Surr: 4-Bromofluorobenzene	120,000		100,000		116	70	130		0	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43407

Sample ID: **BLK1 101111 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43407**
Client ID: **PBW** Batch ID: **R43407** TestNo: **MA_APH** Analysis Date: **10/11/2011** SeqNo: **848495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	73	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	92		89.50		103	70	130				

Sample ID: **1110067-030BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43407**
Client ID: **VAO596** Batch ID: **R43407** TestNo: **MA_APH** Analysis Date: **10/11/2011** SeqNo: **848502**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	240,000	47,000						213,300	9.85	30	
C9-C10 Aromatic Hydrocarbons	ND	53,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	68,000	76,000						46,290	38.6	30	JR
Surr: 4-Bromofluorobenzene	38,000		35,800		107	70	130		0	30	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43433

Sample ID: **Blank VOA1 10121** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43433**
Client ID: **PBW** Batch ID: **R43433** TestNo: **TO-15** Analysis Date: **10/12/2011** SeqNo: **848249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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									

Qualifiers:
- */X Value exceeds Maximum Contaminant Level
- J Estimated concentration
- R RPD outside accepted recovery limits
- E Value above quantitation range
- M Manual Integration used to determine area response
- RL Reporting Limit
- H Holding times for preparation or analysis exceeds
- ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43433

Sample ID: **Blank VOA1 10121** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43433**
Client ID: **PBW** Batch ID: **R43433** TestNo: **TO-15** Analysis Date: **10/12/2011** SeqNo: **848249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
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									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
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									

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43433

Sample ID: **Blank VOA1 10121** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43433**
Client ID: **PBW** Batch ID: **R43433** TestNo: **TO-15** Analysis Date: **10/12/2011** SeqNo: **848249**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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		115	70	130				

Sample ID: **1110067-031BD** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43433**
Client ID: **VAO597** Batch ID: **R43433** TestNo: **TO-15** Analysis Date: **10/13/2011** SeqNo: **848257**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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	

Qualifiers:
*/X Value exceeds Maximum Contaminant Level
J Estimated concentration
R RPD outside accepted recovery limits
E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Limit
H Holding times for preparation or analysis exceede
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43433

Sample ID: **1110067-031BD** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43433**
Client ID: **VAO597** Batch ID: **R43433** TestNo: **TO-15** Analysis Date: **10/13/2011** SeqNo: **848257**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	18,000	8,000						15,520	17.0	25	
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	
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	74,000	16,000						64,560	13.4	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	
Ethyl acetate	ND	8,000						0	0	25	
Ethylbenzene	ND	16,000						0	0	25	
Heptane	9,200	8,000						0	200	25	R
Hexachlorobutadiene	ND	16,000						0	0	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43433

Sample ID: **1110067-031BD** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43433**
Client ID: **VAO597** Batch ID: **R43433** TestNo: **TO-15** Analysis Date: **10/13/2011** SeqNo: **848257**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	ND	16,000						0	0	25	
Methylene chloride	ND	40,000						0	0	25	
Naphthalene	ND	8,000						0	0	25	
n-Hexane	57,000	16,000						51,040	11.7	25	
o-Xylene	ND	8,000						0	0	25	
Propylene	15,000	8,000						15,120	2.09	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	29,000	8,000						23,600	20.7	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	ND	24,000						0	0	25	
Surr: 4-Bromofluorobenzene	130,000		100,000		125	70	130		0	25	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43464

Sample ID: **BLK2 VOA1 101211** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43464**
Client ID: **PBW** Batch ID: **R43464** TestNo: **TO-15** Analysis Date: **10/13/2011** SeqNo: **849098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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									

Qualifiers:
*/X Value exceeds Maximum Contaminant Level
J Estimated concentration
R RPD outside accepted recovery limits
E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Limit
H Holding times for preparation or analysis exceede
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43464

Sample ID: **BLK2 VOA1 101211** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43464**
Client ID: **PBW** Batch ID: **R43464** TestNo: **TO-15** Analysis Date: **10/13/2011** SeqNo: **849098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
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									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
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									

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

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QC SUMMARY REPORT

WO#: **1110067**

21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB

BatchID: **R43464**

Sample ID: **BLK2 VOA1 101211** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43464**

Client ID: **PBW** Batch ID: **R43464** TestNo: **TO-15** Analysis Date: **10/13/2011** SeqNo: **849098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	15		12.50		121	70	130				

Qualifiers:

**/X*	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43474

Sample ID: **BLK1 101311 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43474**
Client ID: **PBW** Batch ID: **R43474** TestNo: **MA_APH** Analysis Date: **10/13/2011** SeqNo: **849497**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	47	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	93		89.50		104	70	130				

Sample ID: **1110367-002BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43474**
Client ID: **ZZZZZZ** Batch ID: **R43474** TestNo: **MA_APH** Analysis Date: **10/13/2011** SeqNo: **849504**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	35,000,000	940,000						35,490,000	2.64	30	
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	1,400,000	1,500,000						1,576,000	9.29	30	J
Surr: 4-Bromofluorobenzene	750,000		716,000		105	70	130		0	30	

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	E	Value above quantitation range	H	Holding times for preparation or analysis exceede
J	Estimated concentration	M	Manual Integration used to determine area response	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43496

Sample ID: **BLK2 101311 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43496**
Client ID: **PBW** Batch ID: **R43496** TestNo: **MA_APH** Analysis Date: **10/14/2011** SeqNo: **850033**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	39	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	94		89.50		105	70	130				

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43516

Sample ID: **BLK1 101711 VOA9** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43516**
Client ID: **PBW** Batch ID: **R43516** TestNo: **MA_APH** Analysis Date: **10/17/2011** SeqNo: **850579**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	43	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	95		89.50		106	70	130				

Sample ID: **1110367-003BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **43516**
Client ID: **ZZZZZZ** Batch ID: **R43516** TestNo: **MA_APH** Analysis Date: **10/17/2011** SeqNo: **850585**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	45,000,000	2,300,000						44,370,000	0.950	30	
C9-C10 Aromatic Hydrocarbons	ND	2,700,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	520,000	3,800,000						597,800	14.3	30	J
Surr: 4-Bromofluorobenzene	1,800,000		1,790,000		103	70	130		0	30	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43521

Sample ID: **Blank VOA1 10171** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43521**
Client ID: **PBW** Batch ID: **R43521** TestNo: **TO-15** Analysis Date: **10/17/2011** SeqNo: **850631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43521

Sample ID: **Blank VOA1 10171** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43521**
Client ID: **PBW** Batch ID: **R43521** TestNo: **TO-15** Analysis Date: **10/17/2011** SeqNo: **850631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
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									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
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									

Qualifiers:

*X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43521

Sample ID: **Blank VOA1 10171** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43521**
Client ID: **PBW** Batch ID: **R43521** TestNo: **TO-15** Analysis Date: **10/17/2011** SeqNo: **850631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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				

Sample ID: **1110367-006Bdup** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43521**
Client ID: **ZZZZZZ** Batch ID: **R43521** TestNo: **TO-15** Analysis Date: **10/17/2011** SeqNo: **850643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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	

Qualifiers:
*/X Value exceeds Maximum Contaminant Level
J Estimated concentration
R RPD outside accepted recovery limits
E Value above quantitation range
M Manual Integration used to determine area response
RL Reporting Limit
H Holding times for preparation or analysis exceede
ND Not Detected at the Reporting Limit
S Spike Recovery outside accepted recovery limits

RTI LABORATORIES, INC.

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Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43521

Sample ID: **1110367-006Bdup** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43521**
Client ID: **ZZZZZZ** Batch ID: **R43521** TestNo: **TO-15** Analysis Date: **10/17/2011** SeqNo: **850643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	8,000						0	0	25	
1,4-Dichlorobenzene	ND	8,000						0	0	25	
2-Butanone	9,300	8,000						8,960	3.51	25	
2-Hexanone	ND	8,000						0	0	25	
4-Methyl-2-pentanone	ND	8,000						0	0	25	
Acetone	25,000	8,000						22,720	11.3	25	
Benzene	45,000	8,000						47,520	5.71	25	
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	
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	240,000	16,000						250,600	4.67	25	
Dichlorodifluoromethane	ND	8,000						0	0	25	
Ethyl acetate	ND	8,000						0	0	25	
Ethylbenzene	9,000	16,000						8,720	3.60	25	J
Heptane	130,000	8,000						130,900	2.48	25	
Hexachlorobutadiene	ND	16,000						0	0	25	

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43521

Sample ID: **1110367-006Bdup** SampType: **DUP** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43521**
Client ID: **ZZZZZZ** Batch ID: **R43521** TestNo: **TO-15** Analysis Date: **10/17/2011** SeqNo: **850643**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
m,p-Xylene	20,000	16,000						18,960	3.32	25	
Methylene chloride	ND	40,000						0	0	25	
Naphthalene	ND	8,000						0	0	25	
n-Hexane	440,000	16,000						471,400	6.68	25	
o-Xylene	ND	8,000						0	0	25	
Propylene	18,000	8,000						18,960	5.64	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	59,000	8,000						57,680	2.19	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	20,000	24,000						18,960	3.32	25	J
Surr: 4-Bromofluorobenzene	110,000		100,000		110	70	130		0	25	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43554

Sample ID: **BLK VOA1 101811** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43554**
Client ID: **PBW** Batch ID: **R43554** TestNo: **TO-15** Analysis Date: **10/19/2011** SeqNo: **851677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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									

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43554

Sample ID: **BLK VOA1 101811** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43554**
Client ID: **PBW** Batch ID: **R43554** TestNo: **TO-15** Analysis Date: **10/19/2011** SeqNo: **851677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	1.0									
Chlorobenzene	ND	1.0									
Chlorodibromomethane	ND	1.0									
Chloroethane	ND	1.0									
Chloroform	ND	1.0									
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									
Naphthalene	ND	1.0									
n-Hexane	ND	2.0									
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									

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

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

BatchID: R43554

Sample ID: **BLK VOA1 101811** SampType: **MBLK** TestCode: **EPA_TO15** Units: **ppbv** Prep Date: RunNo: **43554**
Client ID: **PBW** Batch ID: **R43554** TestNo: **TO-15** Analysis Date: **10/19/2011** SeqNo: **851677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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				

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43561

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43561**
Client ID: **PBW** Batch ID: **R43561** TestNo: **ASTM-D2504** Analysis Date: **10/17/2011** SeqNo: **852682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43561**
Client ID: **LCSW** Batch ID: **R43561** TestNo: **ASTM-D2504** Analysis Date: **10/17/2011** SeqNo: **852684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.5	0.10	2.500	0	101	70	130	2.459	2.49	0	
Carbon Monoxide	2.4	0.10	2.500	0	96.9	70	130	2.377	1.88	0	
Methane	2.0	0.50	2.000	0	102	70	130	1.969	3.69	0	
Nitrogen	2.6	0.10	2.500	0	104	70	130	2.441	6.73	0	
Oxygen	2.2	0.10	2.500	0	88.6	70	130	2.130	3.87	0	

Sample ID: **1110067-045adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43561**
Client ID: **VAO701** Batch ID: **R43561** TestNo: **ASTM-D2504** Analysis Date: **10/17/2011** SeqNo: **852696**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	5.0	0.10						4.980	0.261	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	82	0.10						82.57	0.187	20	
Oxygen	11	0.10						10.85	0.194	20	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43562

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43562**
Client ID: **PBW** Batch ID: **R43562** TestNo: **ASTM-D2504** Analysis Date: **10/18/2011** SeqNo: **852699**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43562**
Client ID: **LCSW** Batch ID: **R43562** TestNo: **ASTM-D2504** Analysis Date: **10/18/2011** SeqNo: **852701**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.4	0.10	2.500	0	97.1	70	130	2.401	1.08	0	
Carbon Monoxide	2.4	0.10	2.500	0	95.9	70	130	2.386	0.460	0	
Methane	1.9	0.50	2.000	0	97.1	70	130	2.003	3.09	0	
Nitrogen	2.6	0.10	2.500	0	105	70	130	2.639	0.418	0	
Oxygen	2.2	0.10	2.500	0	89.7	70	130	2.224	0.851	0	

Sample ID: **1110067-015adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43562**
Client ID: **VAO406** Batch ID: **R43562** TestNo: **ASTM-D2504** Analysis Date: **10/18/2011** SeqNo: **852713**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.49	0.10						0.4940	0.406	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						77.87	0.526	20	
Oxygen	20	0.10						20.33	1.08	20	

Qualifiers:

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

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QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43563

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43563**
Client ID: **PBW** Batch ID: **R43563** TestNo: **ASTM-D2504** Analysis Date: **10/19/2011** SeqNo: **852792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43563**
Client ID: **LCSW** Batch ID: **R43563** TestNo: **ASTM-D2504** Analysis Date: **10/19/2011** SeqNo: **852794**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.4	0.10	2.500	0	96.0	70	130	2.315	3.56	0	
Carbon Monoxide	2.4	0.10	2.500	0	96.0	70	130	2.346	2.23	0	
Methane	2.0	0.50	2.000	0	101	70	130	1.957	3.02	0	
Nitrogen	2.8	0.10	2.500	0	114	70	130	2.618	8.28	0	
Oxygen	2.4	0.10	2.500	0	94.2	70	130	2.282	3.19	0	

Sample ID: **1110067-022adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43563**
Client ID: **VAO433** Batch ID: **R43563** TestNo: **ASTM-D2504** Analysis Date: **10/19/2011** SeqNo: **852803**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.45	0.10						0.4520	0.221	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						79.03	0.739	20	
Oxygen	18	0.10						18.27	0.880	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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Website: www.rtilabs.com

QC SUMMARY REPORT

WO#: 1110067
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB
BatchID: R43564

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43564**
Client ID: **PBW** Batch ID: **R43564** TestNo: **ASTM-D2504** Analysis Date: **10/20/2011** SeqNo: **852806**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%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** SampType: **LCS** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43564**
Client ID: **LCSW** Batch ID: **R43564** TestNo: **ASTM-D2504** Analysis Date: **10/20/2011** SeqNo: **852808**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.1	0.10	2.500	0	85.9	70	130	2.191	2.03	0	
Carbon Monoxide	2.2	0.10	2.500	0	88.8	70	130	2.244	1.03	0	
Methane	1.9	0.50	2.000	0	93.0	70	130	1.900	2.13	0	
Nitrogen	2.8	0.10	2.500	0	111	70	130	2.839	1.96	0	
Oxygen	2.2	0.10	2.500	0	89.6	70	130	2.287	2.03	0	

Sample ID: **1110067-032adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **43564**
Client ID: **VAO598** Batch ID: **R43564** TestNo: **ASTM-D2504** Analysis Date: **10/20/2011** SeqNo: **852820**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.18	0.10						0.1850	0.542	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						78.03	0.299	20	
Oxygen	20	0.10						19.84	0.313	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level	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
R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

RTI Laboratories

Run ID: VOA1_111010A **Run No.:** 43399

Analytical Run Date: 10/10/2011 **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 101011	BFB_TUNE	TUNE	R43399	10/10/2011 10:00:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 1:03:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 1:45:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 2:27:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 3:09:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 5:57:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 6:39:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R43399	10/10/2011 7:23:00 PM	Robert Lynch		
BFB2 VOA1 101011	BFB_TUNE	TUNE	R43399	10/10/2011 8:03:00 PM	Robert Lynch		
ICV1 VOA1 101011	EPA_TO15	ICV	R43399	10/10/2011 10:05:00 PM	Robert Lynch		
RLVS1 VOA1 10101	EPA_TO15	RLVS	R43399	10/10/2011 10:46:00 PM	Robert Lynch		
BLANK VOA1 10101	EPA_TO15	MBLK	R43399	10/10/2011 11:34:00 PM	Robert Lynch		
1108688-007A	EPA_TO15	SAMP	R43399	10/11/2011 12:16:00 AM	Robert Lynch	H	
1109555-031A	EPA_TO15	SAMP	R43399	10/11/2011 12:56:00 AM	Robert Lynch	H	
1109555-032A	EPA_TO15	SAMP	R43399	10/11/2011 1:37:00 AM	Robert Lynch	H	
1109555-023A	EPA_TO15	SAMP	R43399	10/11/2011 2:17:00 AM	Robert Lynch	H	
1109555-025A	EPA_TO15	SAMP	R43399	10/11/2011 2:58:00 AM	Robert Lynch	H	
1109555-026A	EPA_TO15	SAMP	R43399	10/11/2011 3:39:00 AM	Robert Lynch	H	
1109988-001B	EPA_TO15	SAMP	R43399	10/11/2011 4:19:00 AM	Robert Lynch	H	
1109988-003B	EPA_TO15	SAMP	R43399	10/11/2011 5:00:00 AM	Robert Lynch	H	
1109988-004B	EPA_TO15	SAMP	R43399	10/11/2011 5:47:00 AM	Robert Lynch	H	
1109988-008B	EPA_TO15	SAMP	R43399	10/11/2011 6:34:00 AM	Robert Lynch		
1109988-009B	EPA_TO15	SAMP	R43399	10/11/2011 7:22:00 AM	Robert Lynch		
1109988-010B	EPA_TO15	SAMP	R43399	10/11/2011 8:06:00 AM	Robert Lynch		
1109988-011B	EPA_TO15	SAMP	R43399	10/11/2011 8:53:00 AM	Robert Lynch		
1109988-012B	EPA_TO15	SAMP	R43399	10/11/2011 9:40:00 AM	Robert Lynch		
1109988-013B	EPA_TO15	SAMP	R43399	10/11/2011 10:21:00 AM	Robert Lynch		
1109988-013BDUP	EPA_TO15	DUP	R43399	10/11/2011 11:02:00 AM	Robert Lynch		
1109988-014B	EPA_TO15	SAMP	R43399	10/11/2011 11:42:00 AM	Robert Lynch		
1109988-015B	EPA_TO15	SAMP	R43399	10/11/2011 12:29:00 PM	Robert Lynch		
1109988-016B	EPA_TO15	SAMP	R43399	10/11/2011 1:09:00 PM	Robert Lynch		
1109988-017B	EPA_TO15	SAMP	R43399	10/11/2011 1:50:00 PM	Robert Lynch		
1109988-018B	EPA_TO15	SAMP	R43399	10/11/2011 2:38:00 PM	Robert Lynch		
1109988-019B	EPA_TO15	SAMP	R43399	10/11/2011 3:25:00 PM	Robert Lynch		
1110067-046A	EPA_TO15	SAMP	R43399	10/11/2011 4:07:00 PM	Robert Lynch		
1110067-044B	EPA_TO15	SAMP	R43399	10/11/2011 4:51:00 PM	Robert Lynch		

RTI Laboratories

Run ID: VOA1_111010A **Run No.: 43399**

1110067-045B	EPA_TO15	SAMP	R43399	10/11/2011 5:35:00 PM	Robert Lynch		
RLVS2 VOA1 10101	EPA_TO15	RLVS	R43399	10/11/2011 6:17:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
847556	ICV1 VOA1 101011	EPA_TO15	ICV	\1\DATA\101011	10/10/2011 10:0	1	R43399		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	11.09	11.09		9.6	0	0	0.107	1	0	116%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.6	10.6		10	0	0	0.211	1	0	106%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	10.89	10.89		9.8	0	0	0.108	1	0	111%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.92	9.92		9.8	0	0	0.2	1	0	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.62	10.62		9.7	0	0	0.111	1	0	109%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.04	11.04		9.9	0	0	0.097	1	0	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.46	8.46		9.1	0	0	0.271	1	0	93%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.77	9.77		9.8	0	0	0.245	1	0	100%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.73	9.73		9.6	0	0	0.186	1	0	101%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.17	10.17		9.7	0	0	0.208	1	0	105%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.96	10.96		9.7	0	0	0.196	1	0	113%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.25	10.25		9.8	0	0	0.224	1	0	105%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.5	9.5		9.7	0	0	0.24	1	0	98%	70	130	0%	
1,3-Butadiene	A	ppbv	12.71	12.71		9.8	0	0	0.152	1	0	130%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.01	10.01		9.7	0	0	0.202	1	0	103%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.96	9.96		9.6	0	0	0.194	1	0	104%	70	130	0%	
1,4-Dioxane	A	ppbv	10.12	10.12		9.6	0	0	0.128	1	0	105%	70	130	0%	
2-Butanone	A	ppbv	11.02	11.02		9.9	0	0	0.287	1	0	111%	70	130	0%	
2-Hexanone	A	ppbv	10.27	10.27		9.8	0	0	0.135	1	0	105%	70	130	0%	
2-Propanol	A	ppbv	11.18	11.18		10.1	0	0	0.329	1	0	111%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.4	10.4		10	0	0	0.157	1	0	104%	70	130	0%	
Acetone	A	ppbv	11.06	11.06		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.37	10.37		9.6	0	0	0.126	1	0	108%	70	130	0%	
Benzyl chloride	A	ppbv	10.96	10.96		9.7	0	0	0.155	1	0	113%	70	130	0%	
Bromodichloromethane	A	ppbv	10.07	10.07		9.6	0	0	0.156	1	0	105%	70	130	0%	
Bromoform	A	ppbv	9.82	9.82		9.6	0	0	0.197	1	0	102%	70	130	0%	
Bromomethane	A	ppbv	10.37	10.37		9.3	0	0	0.075	1	0	112%	70	130	0%	
Carbon disulfide	A	ppbv	10.84	10.84		9.7	0	0	0.093	1	0	112%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.41	10.41		9.5	0	0	0.114	1	0	110%	70	130	0%	M
Chlorobenzene	A	ppbv	10.07	10.07		9.9	0	0	0.275	1	0	102%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.76	9.76		9.2	0	0	0.165	1	0	106%	70	130	0%	
Chloroethane	A	ppbv	10.27	10.27		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	11.28	11.28		9.4	0	0	0.126	1	0	120%	70	130	0%	
Chloromethane	A	ppbv	10.34	10.34		9.8	0	0	0.104	1	0	106%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
847556	ICV1 VOA1 101011	EPA_TO15	ICV	\1\DATA\101011	10/10/2011 10:0	1	R43399		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	10.46	10.46		9.8	0	0	0.107	1	0	107%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.96	9.96		9.5	0	0	0.166	1	0	105%	70	130	0%	
Cyclohexane	A	ppbv	11.23	11.23		9.8	0	0	0.684	2	0	115%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.07	10.07		9.2	0	0	0.086	1	0	109%	70	130	0%	
Ethanol	A	ppbv	10.37	10.37		9.2	0	0	1.962	5	0	113%	70	130	0%	
Ethyl acetate	A	ppbv	11.1	11.1		9.8	0	0	0.157	1	0	113%	70	130	0%	
Ethylbenzene	A	ppbv	10.06	10.06		9.8	0	0	0.737	2	0	103%	70	130	0%	
Heptane	A	ppbv	10.93	10.93		9.9	0	0	0.249	1	0	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.58	9.58		9.4	0	0	0.374	2	0	102%	70	130	0%	
m,p-Xylene	A	ppbv	20.61	20.61		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.62	10.62		10	0	0	2.077	5	0	106%	70	130	0%	
n-Hexane	A	ppbv	10.94	10.94		10.1	0	0	0.692	2	0	108%	70	130	0%	
Naphthalene	A	ppbv	8.64	8.64		9.2	0	0	0.247	1	0	94%	70	130	0%	
o-Xylene	A	ppbv	9.99	9.99		10	0	0	0.258	1	0	100%	70	130	0%	
Propylene	A	ppbv	11.06	11.06		10.2	0	0	0.075	1	0	108%	70	130	0%	
Styrene	A	ppbv	9.86	9.86		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.96	10.96		9.9	0	0	0.228	1	0	111%	70	130	0%	
Tetrachloroethene	A	ppbv	9.71	9.71		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	11	11		10	0	0	0.201	1	0	110%	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	10.71	10.71		9.8	0	0	0.117	1	0	109%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.67	9.67		9.1	0	0	0.171	1	0	106%	70	130	0%	
Trichloroethene	A	ppbv	9.74	9.74		9.6	0	0	0.119	1	0	101%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.7	10.7		9.6	0	0	0.148	1	0	111%	70	130	0%	
Vinyl acetate	A	ppbv	11.69	11.69		9.9	0	0	0.266	1	0	118%	70	130	0%	
Vinyl chloride	A	ppbv	10.6	10.6		9.4	0	0	0.072	1	0	113%	70	130	0%	
Xylenes, Total	C	ppbv	30.6	30.6		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	12.96	12.96		12.5	0	0	0	0	0	104%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101011\10101116.D Vial: 4
Acq On : 10 Oct 2011 10:05 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101011 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 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	120	0.00
2	T	Propylene	1.309	1.418	-8.3	112	0.00
3	T	Dichlorodifluoromethane	3.291	3.603	-9.5	120	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.188	2.358	-7.8	118	0.00
5	T	Chloromethane	1.550	1.687	-8.8	106	0.00
6	T	Vinyl chloride	1.365	1.540	-12.8	107	0.00
7	T	1,3-Butadiene	1.184	1.535	-29.6	125	0.00
8	T	Bromomethane	1.168	1.303	-11.6	117	0.01
9	T	Chloroethane	0.736	0.821	-11.5	113	0.00
10	T	Trichlorofluoromethane	2.930	3.265	-11.4	118	0.00
11	T	Ethanol	0.361	0.407	-12.7	103	-0.01
12	T	Freon113	2.418	2.687	-11.1	112	0.00
13	T	1,1-Dichloroethene	1.995	2.226	-11.6	111	0.00
14	T	Acetone	2.049	2.265	-10.5	106	0.00
15	T	Carbon disulfide	3.202	3.578	-11.7	113	0.00
16	T	2-Propanol	1.848	2.047	-10.8	107	0.00
17	T	Methylene chloride	1.619	1.719	-6.2	106	0.00
18	T	tert-Butyl Methyl Ether	2.651	2.936	-10.8	110	0.00
19	T	trans-1,2-Dichloroethene	1.925	2.104	-9.3	109	0.00
20	T	n-Hexane	2.142	2.320	-8.3	107	0.00
21	T	1,1-Dichloroethane	2.117	2.318	-9.5	107	0.00
22	T	Vinyl acetate	3.132	3.700	-18.1	106	0.00
23	T	cis-1,2-Dichloroethene	1.143	1.220	-6.7	109	0.00
24	T	2-Butanone	2.190	2.438	-11.3	105	0.00
25	T	Ethyl acetate	2.785	3.154	-13.2	105	0.00
26	T	Tetrahydrofuran	1.417	1.559	-10.0	104	0.00
27	T	Chloroform	2.487	2.863	-15.1	113	0.00
28	T	1,1,1-Trichloroethane	2.371	2.738	-15.5	113	0.00
29	T	Cyclohexane	2.213	2.536	-14.6	106	0.00
30	T	Carbon tetrachloride	2.060	2.257	-9.6	114	0.00
31	T	Benzene	2.902	3.134	-8.0	107	0.00
32	T	1,2-Dichloroethane	1.467	1.658	-13.0	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	119	0.00
34	T	Heptane	0.966	1.066	-10.4	107	0.00
35	T	Trichloroethene	0.475	0.482	-1.5	111	0.00
36	T	1,2-Dichloropropane	0.394	0.412	-4.6	106	0.00
37	T	1,4-Dioxane	0.132	0.139	-5.3	107	0.00
38	T	Bromodichloromethane	0.705	0.740	-5.0	111	0.00
39	T	cis-1,3-Dichloropropene	0.575	0.603	-4.9	109	0.00
40	T	4-Methyl-2-pentanone	0.262	0.272	-3.8	107	0.00
41	T	Toluene	1.014	1.031	-1.7	107	0.00
42	T	trans-1,3-Dichloropropene	0.495	0.526	-6.3	110	0.00
43	T	1,1,2-Trichloroethane	0.340	0.345	-1.5	108	0.00
44	T	Tetrachloroethene	0.522	0.528	-1.1	110	0.00
45	T	2-Hexanone	0.561	0.588	-4.8	104	0.00
46	T	Chlorodibromomethane	0.529	0.526	0.6	109	0.00
47	T	1,2-Dibromoethane	0.492	0.498	-1.2	109	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101011\10101116.D
Acq On : 10 Oct 2011 10:05 pm
Sample : ICV1 VOA1 101011
Misc : ICV EPA_TO15
MS Integration Params: CLME.P

Vial: 4
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	1.004	1.021	-1.7	108	0.00
50	T	Ethylbenzene	1.718	1.764	-2.7	108	0.00
51	T	m,p-Xylene	1.425	1.530	-7.4	107	0.00
52	T	o-Xylene	1.264	1.263	0.1	107	0.00
53	T	Styrene	0.862	0.867	-0.6	108	0.00
54	T	Bromoform	0.637	0.652	-2.4	109	0.00
55	S	4-Bromofluorobenzene	0.545	0.565	-3.7	117	0.00
56	T	1,1,2,2-Tetrachloroethane	0.884	0.937	-6.0	112	0.00
57	T	4-Ethyltoluene	1.424	1.410	1.0	108	0.00
58	T	1,3,5-Trimethylbenzene	1.208	1.183	2.1	108	0.00
59	T	1,2,4-Trimethylbenzene	1.105	1.101	0.4	112	0.00
60	T	1,3-Dichlorobenzene	0.661	0.682	-3.2	111	0.00
61	T	1,4-Dichlorobenzene	0.614	0.637	-3.7	109	0.00
62	T	Benzyl chloride	0.754	0.852	-13.0	110	0.00
63	T	1,2-Dichlorobenzene	0.594	0.623	-4.9	111	0.00
64	T	1,2,4-Trichlorobenzene	0.091	0.084	7.7	88	0.00
65	T	Hexachlorobutadiene	0.206	0.210	-1.9	93	0.00
66		Naphthalene	0.137	0.129	5.8	88	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101011\10101116.D Vial: 4
Acq On : 10 Oct 2011 10:05 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101011 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 11 12:40 2011 Quant Results File: 101011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration
DataAcq Meth : 101011V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	469165	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1405947	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	846557	12.50 ppbv	0.00
System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	478028	12.96 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 103.68%		
Target Compounds					Qvalue
2) Propylene	5.51	41	543006	11.06 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1244148	10.07 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	840619	10.23 ppbv #	68
5) Chloromethane	6.00	50	601484	10.34 ppbv	99
6) Vinyl chloride	6.21	62	543296	10.60 ppbv #	98
7) 1,3-Butadiene	6.26	39	564755	12.71 ppbv	94
8) Bromomethane	6.85	94	454688	10.37 ppbv #	97
9) Chloroethane	6.99	64	283668	10.27 ppbv #	95
10) Trichlorofluoromethane	7.33	101	1176431	10.70 ppbv #	98
11) Ethanol	7.56	45	140532	10.37 ppbv	98
12) Freon113	7.99	101	988176	10.89 ppbv	87
13) 1,1-Dichloroethene	8.09	61	827015	11.04 ppbv #	86
14) Acetone	8.18	43	850176	11.06 ppbv	92
15) Carbon disulfide	8.46	76	1302720	10.84 ppbv #	99
16) 2-Propanol	8.23	45	775893	11.18 ppbv #	1
17) Methylene chloride	8.75	49	645333	10.62 ppbv #	77
18) tert-Butyl Methyl Ether	8.95	73	1091022	10.96 ppbv #	87
19) trans-1,2-Dichloroethene	9.03	61	773826	10.71 ppbv #	82
20) n-Hexane	9.22	57	879613	10.94 ppbv #	87
21) 1,1-Dichloroethane	9.59	63	843951	10.62 ppbv #	97
22) Vinyl acetate	9.53	43	1374865	11.69 ppbv #	95
23) cis-1,2-Dichloroethene	10.27	96	448600	10.46 ppbv #	79
24) 2-Butanone	10.24	43	906093	11.02 ppbv #	87
25) Ethyl acetate	10.20	43	1160095	11.10 ppbv #	99
26) Tetrahydrofuran	10.58	42	585037	11.00 ppbv	87
27) Chloroform	10.60	83	1053064	11.28 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	986423	11.09 ppbv #	94
29) Cyclohexane	10.86	56	932661	11.23 ppbv	85
30) Carbon tetrachloride	11.01	117	804750m	10.41 ppbv	
31) Benzene	11.29	78	1129231	10.37 ppbv	94
32) 1,2-Dichloroethane	11.37	62	603728	10.96 ppbv #	97
34) Heptane	11.35	43	1187445	10.93 ppbv #	87
35) Trichloroethene	12.03	130	520377	9.74 ppbv	92
36) 1,2-Dichloropropane	12.38	63	453917	10.25 ppbv	97
37) 1,4-Dioxane	12.46	88	149811	10.12 ppbv #	80
38) Bromodichloromethane	12.66	83	798905	10.07 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	644327	9.96 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	306340	10.40 ppbv #	91
41) Toluene	13.62	91	1136659	9.97 ppbv	97
42) trans-1,3-Dichloropropene	13.92	75	538792	9.67 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	379783	9.92 ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101011\10101116.D
Acq On : 10 Oct 2011 10:05 pm
Sample : ICV1 VOA1 101011
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 11 12:40 2011

Vial: 4
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 101011V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration
DataAcq Meth : 101011V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.33	166	569961	9.71 ppbv	98
45) 2-Hexanone	14.41	43	647684	10.27 ppbv	91
46) Chlorodibromomethane	14.75	129	580262	9.76 ppbv	99
47) 1,2-Dibromoethane	14.98	107	538092	9.73 ppbv	99
49) Chlorobenzene	15.58	112	684260	10.07 ppbv #	85
50) Ethylbenzene	15.62	91	1170488	10.06 ppbv	91
51) m,p-Xylene	15.78	91	1989630	20.61 ppbv	89
52) o-Xylene	16.37	91	855138	9.99 ppbv #	87
53) Styrene	16.39	104	575592	9.86 ppbv	96
54) Bromoform	16.78	173	423660	9.82 ppbv #	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	634805	10.60 ppbv #	98
57) 4-Ethyltoluene	17.60	105	935703	9.70 ppbv	96
58) 1,3,5-Trimethylbenzene	17.68	105	777087	9.50 ppbv	96
59) 1,2,4-Trimethylbenzene	18.27	105	730677	9.77 ppbv	96
60) 1,3-Dichlorobenzene	18.82	146	447838	10.01 ppbv	97
61) 1,4-Dichlorobenzene	18.96	146	414202	9.96 ppbv	97
62) Benzyl chloride	19.17	91	559740	10.96 ppbv	96
63) 1,2-Dichlorobenzene	19.61	146	409028	10.17 ppbv	97
64) 1,2,4-Trichlorobenzene	22.76	180	51931	8.46 ppbv	97
65) Hexachlorobutadiene	22.96	225	133957	9.58 ppbv	99
66) Naphthalene	23.45	128	80490	8.64 ppbv	98

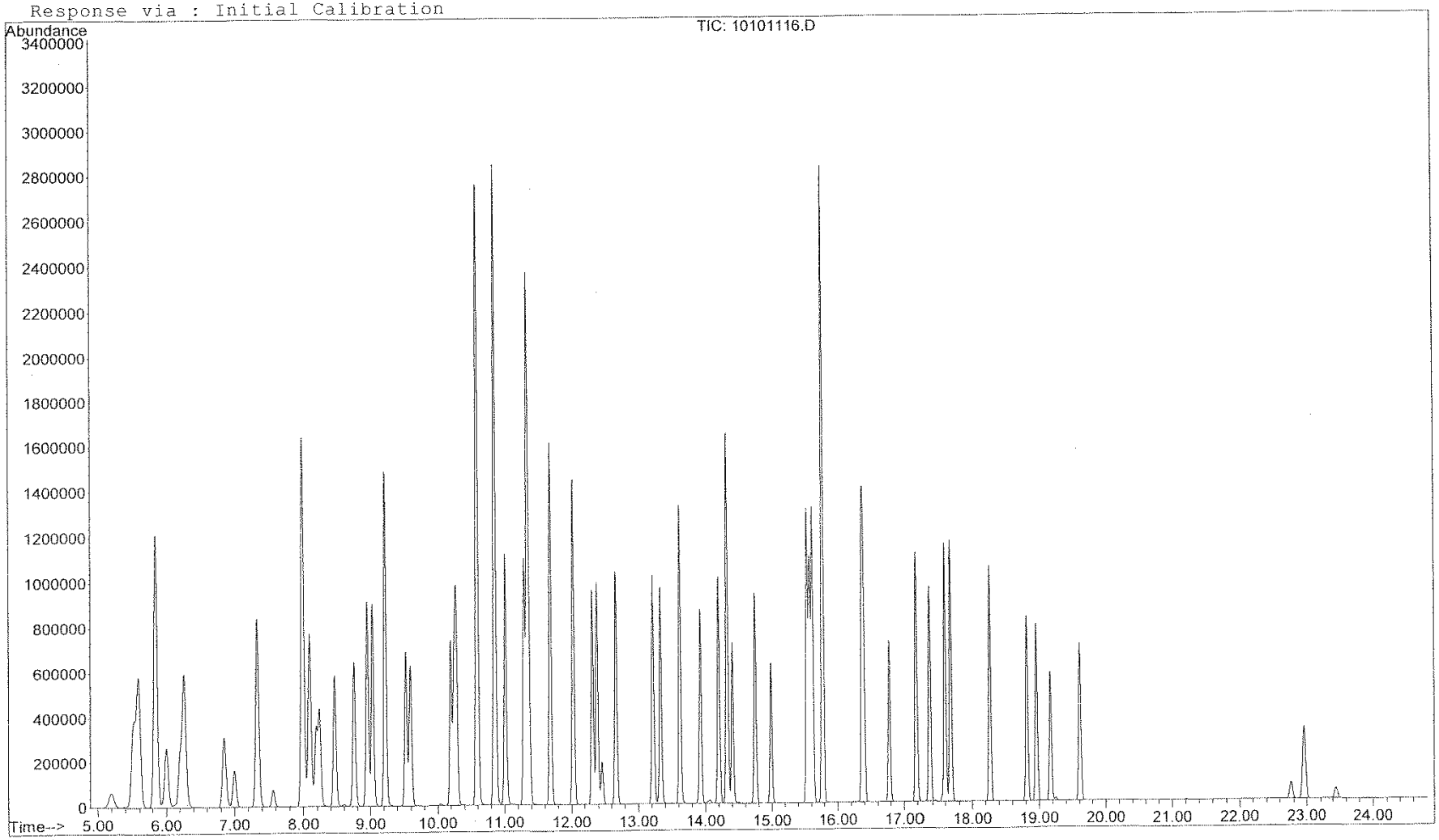
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101011\10101116.D
Acq On : 10 Oct 2011 10:05 pm
Sample : ICV1 VOA1 101011
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 11 12:40 2011

Vial: 4
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 101011V1.RES

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111012A **Run No.:** 43433

Analytical Run Date: 10/12/2011 **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 101211	BFB_TUNE	TUNE	R43433	10/12/2011 9:58:00 AM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 3:31:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 4:11:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 4:53:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 5:34:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 6:16:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 6:58:00 PM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R43433	10/12/2011 7:41:00 PM	Robert Lynch		
BFB1 VOA2 101211	BFB_TUNE	TUNE	R43433	10/12/2011 8:22:00 PM	Robert Lynch		
ICV1 VOA1 101211	EPA_TO15	ICV	R43433	10/12/2011 9:44:00 PM	Robert Lynch		
RLVS1 VOA1 10121	EPA_TO15	RLVS	R43433	10/12/2011 10:26:00 PM	Robert Lynch		
Blank VOA1 10121	EPA_TO15	MBLK	R43433	10/12/2011 11:13:00 PM	Robert Lynch		
1110067-043B	EPA_TO15	SAMP	R43433	10/12/2011 11:57:00 PM	Robert Lynch		
1110067-026B	EPA_TO15	SAMP	R43433	10/13/2011 12:44:00 AM	Robert Lynch		
1110067-027B	EPA_TO15	SAMP	R43433	10/13/2011 1:32:00 AM	Robert Lynch		
1110067-028B	EPA_TO15	SAMP	R43433	10/13/2011 2:19:00 AM	Robert Lynch		
1110067-029B	EPA_TO15	SAMP	R43433	10/13/2011 3:06:00 AM	Robert Lynch		
1110067-030B	EPA_TO15	SAMP	R43433	10/13/2011 3:54:00 AM	Robert Lynch		
1110067-031B	EPA_TO15	SAMP	R43433	10/13/2011 4:34:00 AM	Robert Lynch		
1110067-031BD	EPA_TO15	DUP	R43433	10/13/2011 5:16:00 AM	Robert Lynch		
1110067-032B	EPA_TO15	SAMP	R43433	10/13/2011 5:57:00 AM	Robert Lynch		
1110067-008B	EPA_TO15	SAMP	R43433	10/13/2011 6:45:00 AM	Robert Lynch		
1110067-009B	EPA_TO15	SAMP	R43433	10/13/2011 7:32:00 AM	Robert Lynch		
1110067-010B	EPA_TO15	SAMP	R43433	10/13/2011 8:13:00 AM	Robert Lynch		
1110067-011B	EPA_TO15	SAMP	R43433	10/13/2011 9:57:00 AM	Robert Lynch		
1110067-004B	EPA_TO15	SAMP	R43433	10/13/2011 10:45:00 AM	Robert Lynch		
1110067-005B	EPA_TO15	SAMP	R43433	10/13/2011 11:31:00 AM	Robert Lynch		
1110067-006B	EPA_TO15	SAMP	R43433	10/13/2011 12:19:00 PM	Robert Lynch		
1110067-007B	EPA_TO15	SAMP	R43433	10/13/2011 1:06:00 PM	Robert Lynch		
1110067-021B	EPA_TO15	SAMP	R43433	10/13/2011 1:53:00 PM	Robert Lynch		
1110067-022B	EPA_TO15	SAMP	R43433	10/13/2011 2:41:00 PM	Robert Lynch		
1110067-023B	EPA_TO15	SAMP	R43433	10/13/2011 3:22:00 PM	Robert Lynch		
RLVS2 VOA1 10121	EPA_TO15	RLVS	R43433	10/13/2011 5:32:00 PM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
848247	ICV1 VOA1 101211	EPA_TO15	ICV	\1\DATA\101211	10/12/2011 9:44:	1	R43433		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	11.42	11.42		9.6	0	0	0.107	1	0	119%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.36	10.36		10	0	0	0.211	1	0	104%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.37	11.37		9.8	0	0	0.108	1	0	116%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.96	9.96		9.8	0	0	0.2	1	0	102%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.21	11.21		9.7	0	0	0.111	1	0	116%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.31	11.31		9.9	0	0	0.097	1	0	114%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	8.54	8.54		9.1	0	0	0.271	1	0	94%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.48	9.48		9.8	0	0	0.245	1	0	97%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.78	9.78		9.6	0	0	0.186	1	0	102%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.22	9.22		9.7	0	0	0.208	1	0	95%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.49	11.49		9.7	0	0	0.196	1	0	118%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.54	10.54		9.8	0	0	0.224	1	0	108%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.52	9.52		9.7	0	0	0.24	1	0	98%	70	130	0%	
1,3-Butadiene	A	ppbv	12.59	12.59		9.8	0	0	0.152	1	0	128%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.29	9.29		9.7	0	0	0.202	1	0	96%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.31	9.31		9.6	0	0	0.194	1	0	97%	70	130	0%	
1,4-Dioxane	A	ppbv	10.21	10.21		9.6	0	0	0.128	1	0	106%	70	130	0%	
2-Butanone	A	ppbv	11.59	11.59		9.9	0	0	0.287	1	0	117%	70	130	0%	
2-Hexanone	A	ppbv	10.35	10.35		9.8	0	0	0.135	1	0	106%	70	130	0%	
2-Propanol	A	ppbv	11.54	11.54		10.1	0	0	0.329	1	0	114%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.49	10.49		10	0	0	0.157	1	0	105%	70	130	0%	
Acetone	A	ppbv	11.69	11.69		10	0	0	0.43	1	0	117%	70	130	0%	
Benzene	A	ppbv	10.94	10.94		9.6	0	0	0.126	1	0	114%	70	130	0%	
Benzyl chloride	A	ppbv	10.47	10.47		9.7	0	0	0.155	1	0	108%	70	130	0%	
Bromodichloromethane	A	ppbv	10.24	10.24		9.6	0	0	0.156	1	0	107%	70	130	0%	
Bromoform	A	ppbv	9.86	9.86		9.6	0	0	0.197	1	0	103%	70	130	0%	
Bromomethane	A	ppbv	10.36	10.36		9.3	0	0	0.075	1	0	111%	70	130	0%	
Carbon disulfide	A	ppbv	10.95	10.95		9.7	0	0	0.093	1	0	113%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.69	10.69		9.5	0	0	0.114	1	0	113%	70	130	0%	M
Chlorobenzene	A	ppbv	10.2	10.2		9.9	0	0	0.275	1	0	103%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.88	9.88		9.2	0	0	0.165	1	0	107%	70	130	0%	
Chloroethane	A	ppbv	10.45	10.45		9.8	0	0	0.063	1	0	107%	70	130	0%	
Chloroform	A	ppbv	11.55	11.55		9.4	0	0	0.126	1	0	123%	70	130	0%	
Chloromethane	A	ppbv	10.74	10.74		9.8	0	0	0.104	1	0	110%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
848247	ICV1 VOA1 101211	EPA_TO15	ICV	.\1\DATA\101211	10/12/2011 9:44:	1	R43433		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	10.81	10.81		9.8	0	0	0.107	1	0	110%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.14	10.14		9.5	0	0	0.166	1	0	107%	70	130	0%	
Cyclohexane	A	ppbv	11.72	11.72		9.8	0	0	0.684	2	0	120%	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	11.1	11.1		9.2	0	0	1.962	5	0	121%	70	130	0%	
Ethyl acetate	A	ppbv	11.92	11.92		9.8	0	0	0.157	1	0	122%	70	130	0%	
Ethylbenzene	A	ppbv	10.31	10.31		9.8	0	0	0.737	2	0	105%	70	130	0%	
Heptane	A	ppbv	11.14	11.14		9.9	0	0	0.249	1	0	113%	70	130	0%	
Hexachlorobutadiene	A	ppbv	9.1	9.1		9.4	0	0	0.374	2	0	97%	70	130	0%	
m,p-Xylene	A	ppbv	21.3	21.3		19.2	0	0	0.524	2	0	111%	70	130	0%	
Methylene chloride	A	ppbv	11.24	11.24		10	0	0	2.077	5	0	112%	70	130	0%	
n-Hexane	A	ppbv	11.44	11.44		10.1	0	0	0.692	2	0	113%	70	130	0%	
Naphthalene	A	ppbv	8.49	8.49		9.2	0	0	0.247	1	0	92%	70	130	0%	
o-Xylene	A	ppbv	10.36	10.36		10	0	0	0.258	1	0	104%	70	130	0%	
Propylene	A	ppbv	11.07	11.07		10.2	0	0	0.075	1	0	109%	70	130	0%	
Styrene	A	ppbv	10.1	10.1		9.8	0	0	0.263	1	0	103%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.46	11.46		9.9	0	0	0.228	1	0	116%	70	130	0%	
Tetrachloroethene	A	ppbv	9.71	9.71		9.6	0	0	0.148	1	0	101%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.64	11.64		10	0	0	0.201	1	0	116%	70	130	0%	
Toluene	A	ppbv	10.23	10.23		9.8	0	0	0.158	1	0	104%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.16	11.16		9.8	0	0	0.117	1	0	114%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.64	9.64		9.1	0	0	0.171	1	0	106%	70	130	0%	
Trichloroethene	A	ppbv	9.85	9.85		9.6	0	0	0.119	1	0	103%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.74	10.74		9.6	0	0	0.148	1	0	112%	70	130	0%	
Vinyl acetate	A	ppbv	12.51	12.51		9.9	0	0	0.266	1	0	126%	70	130	0%	
Vinyl chloride	A	ppbv	10.94	10.94		9.4	0	0	0.072	1	0	116%	70	130	0%	
Xylenes, Total	C	ppbv	31.66	31.66		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	12.72	12.72		12.5	0	0	0	0	0	102%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101211\10121112.D Vial: 3
Acq On : 12 Oct 2011 9:44 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101211 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 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	111	0.00
2	T	Propylene	1.322	1.435	-8.5	107	0.00
3	T	Dichlorodifluoromethane	3.419	3.663	-7.1	111	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.236	2.398	-7.2	111	0.00
5	T	Chloromethane	1.526	1.725	-13.0	106	0.00
6	T	Vinyl chloride	1.358	1.580	-16.3	104	0.00
7	T	1,3-Butadiene	1.213	1.558	-28.4	107	0.00
8	T	Bromomethane	1.184	1.318	-11.3	110	0.00
9	T	Chloroethane	0.740	0.841	-13.6	109	0.00
10	T	Trichlorofluoromethane	2.967	3.319	-11.9	111	0.00
11	T	Ethanol	0.358	0.431	-20.4	112	-0.01
12	T	Freon113	2.415	2.802	-16.0	109	0.00
13	T	1,1-Dichloroethene	1.995	2.279	-14.2	108	0.00
14	T	Acetone	2.058	2.405	-16.9	106	0.00
15	T	Carbon disulfide	3.218	3.631	-12.8	108	0.00
16	T	2-Propanol	1.859	2.123	-14.2	107	0.00
17	T	Methylene chloride	1.589	1.785	-12.3	105	0.00
18	T	tert-Butyl Methyl Ether	2.698	3.123	-15.8	106	0.00
19	T	trans-1,2-Dichloroethene	1.922	2.189	-13.9	107	0.00
20	T	n-Hexane	2.121	2.403	-13.3	106	0.00
21	T	1,1-Dichloroethane	2.113	2.442	-15.6	106	0.00
22	T	Vinyl acetate	3.116	3.936	-26.3	105	0.00
23	T	cis-1,2-Dichloroethene	1.153	1.271	-10.2	107	0.00
24	T	2-Butanone	2.155	2.522	-17.0	104	0.00
25	T	Ethyl acetate	2.755	3.350	-21.6	106	0.00
26	T	Tetrahydrofuran	1.390	1.618	-16.4	104	0.00
27	T	Chloroform	2.488	2.931	-17.8	108	0.00
28	T	1,1,1-Trichloroethane	2.386	2.837	-18.9	109	0.00
29	T	Cyclohexane	2.184	2.611	-19.6	106	0.00
30	T	Carbon tetrachloride	2.076	2.336	-12.5	109	0.00
31	T	Benzene	2.902	3.308	-14.0	106	0.00
32	T	1,2-Dichloroethane	1.469	1.740	-18.4	107	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	114	0.00
34	T	Heptane	0.953	1.073	-12.6	105	0.00
35	T	Trichloroethene	0.472	0.484	-2.5	107	0.00
36	T	1,2-Dichloropropane	0.393	0.422	-7.4	104	0.00
37	T	1,4-Dioxane	0.132	0.141	-6.8	108	0.00
38	T	Bromodichloromethane	0.704	0.751	-6.7	107	0.00
39	T	cis-1,3-Dichloropropene	0.572	0.610	-6.6	106	0.00
40	T	4-Methyl-2-pentanone	0.259	0.272	-5.0	105	0.00
41	T	Toluene	1.005	1.049	-4.4	105	0.00
42	T	trans-1,3-Dichloropropene	0.496	0.526	-6.0	106	0.00
43	T	1,1,2-Trichloroethane	0.340	0.346	-1.8	105	0.00
44	T	Tetrachloroethene	0.517	0.523	-1.2	107	0.00
45	T	2-Hexanone	0.552	0.583	-5.6	105	0.00
46	T	Chlorodibromomethane	0.518	0.522	-0.8	107	0.00
47	T	1,2-Dibromoethane	0.489	0.498	-1.8	107	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101211\10121112.D Vial: 3
Acq On : 12 Oct 2011 9:44 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101211 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	1.005	1.035	-3.0	106	0.00
50	T	Ethylbenzene	1.727	1.816	-5.2	105	0.00
51	T	m,p-Xylene	1.422	1.578	-11.0	106	0.00
52	T	o-Xylene	1.265	1.310	-3.6	106	0.00
53	T	Styrene	0.862	0.888	-3.0	107	0.00
54	T	Bromoform	0.630	0.647	-2.7	107	0.00
55	S	4-Bromofluorobenzene	0.554	0.564	-1.8	111	0.00
56	T	1,1,2,2-Tetrachloroethane	0.920	0.953	-3.6	107	0.00
57	T	4-Ethyltoluene	1.440	1.434	0.4	107	0.00
58	T	1,3,5-Trimethylbenzene	1.245	1.222	1.8	107	0.00
59	T	1,2,4-Trimethylbenzene	1.160	1.122	3.3	107	0.00
60	T	1,3-Dichlorobenzene	0.689	0.659	4.4	103	0.00
61	T	1,4-Dichlorobenzene	0.633	0.614	3.0	103	0.00
62	T	Benzyl chloride	0.777	0.839	-8.0	104	0.00
63	T	1,2-Dichlorobenzene	0.634	0.603	4.9	103	0.00
64	T	1,2,4-Trichlorobenzene	0.089	0.084	5.6	94	0.00
65	T	Hexachlorobutadiene	0.209	0.202	3.3	93	0.00
66		Naphthalene	0.136	0.126	7.4	92	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101211\10121112.D Vial: 3
Acq On : 12 Oct 2011 9:44 pm Operator: RACHEL HILL
Sample : ICV1 VOA1 101211 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 13 9:40 2011 Quant Results File: 101211V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration
DataAcq Meth : 101211V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	444540	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1354909	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	792412	12.50 ppbv	0.00

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	446599	12.72 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 101.76%		

Target Compounds					Qvalue
2) Propylene	5.52	41	520564	11.07 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1198368	9.86 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	810028	10.19 ppbv #	68
5) Chloromethane	6.00	50	582864	10.74 ppbv	99
6) Vinyl chloride	6.20	62	528209	10.94 ppbv #	98
7) 1,3-Butadiene	6.26	39	543046	12.59 ppbv	94
8) Bromomethane	6.84	94	436026	10.36 ppbv #	98
9) Chloroethane	7.00	64	275050	10.45 ppbv	95
10) Trichlorofluoromethane	7.33	101	1133259	10.74 ppbv #	97
11) Ethanol	7.56	45	141173	11.10 ppbv	99
12) Freon113	7.99	101	976599	11.37 ppbv	87
13) 1,1-Dichloroethene	8.09	61	802243	11.31 ppbv #	87
14) Acetone	8.18	43	855447	11.69 ppbv	92
15) Carbon disulfide	8.46	76	1252656	10.95 ppbv #	100
16) 2-Propanol	8.23	45	762427	11.54 ppbv #	1
17) Methylene chloride	8.75	49	634911	11.24 ppbv #	77
18) tert-Butyl Methyl Ether	8.95	73	1099523	11.46 ppbv #	88
19) trans-1,2-Dichloroethene	9.03	61	762889	11.16 ppbv #	82
20) n-Hexane	9.22	57	863186	11.44 ppbv #	87
21) 1,1-Dichloroethane	9.60	63	842397	11.21 ppbv #	97
22) Vinyl acetate	9.53	43	1385708	12.51 ppbv #	95
23) cis-1,2-Dichloroethene	10.28	96	442956	10.81 ppbv #	81
24) 2-Butanone	10.24	43	887871	11.59 ppbv #	87
25) Ethyl acetate	10.20	43	1167522	11.92 ppbv #	99
26) Tetrahydrofuran	10.58	42	575552	11.64 ppbv	88
27) Chloroform	10.60	83	1021480	11.55 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	968603	11.42 ppbv #	94
29) Cyclohexane	10.86	56	910069	11.72 ppbv	86
30) Carbon tetrachloride	11.01	117	789270m	10.69 ppbv	
31) Benzene	11.30	78	1129505	10.94 ppbv	94
32) 1,2-Dichloroethane	11.37	62	600084	11.49 ppbv #	97
34) Heptane	11.34	43	1151074	11.14 ppbv #	87
35) Trichloroethene	12.03	130	504120	9.85 ppbv	92
36) 1,2-Dichloropropane	12.38	63	448413	10.54 ppbv	97
37) 1,4-Dioxane	12.46	88	146268	10.21 ppbv #	80
38) Bromodichloromethane	12.67	83	780984	10.24 ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	628552	10.14 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	294516	10.49 ppbv #	91
41) Toluene	13.62	91	1114531	10.23 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	518747	9.64 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	367098	9.96 ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101211\10121112.D
Acq On : 12 Oct 2011 9:44 pm
Sample : ICV1 VOA1 101211
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 13 9:40 2011

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

Quant Results File: 101211V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration
DataAcq Meth : 101211V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.32	166	544524	9.71 ppbv	98
45) 2-Hexanone	14.41	43	618928	10.35 ppbv	92
46) Chlorodibromomethane	14.75	129	554818	9.88 ppbv	99
47) 1,2-Dibromoethane	14.98	107	518026	9.78 ppbv	100
49) Chlorobenzene	15.58	112	649708	10.20 ppbv #	84
50) Ethylbenzene	15.62	91	1128221	10.31 ppbv	90
51) m,p-Xylene	15.78	91	1920431	21.30 ppbv	89
52) o-Xylene	16.37	91	830445	10.36 ppbv #	87
53) Styrene	16.39	104	551947	10.10 ppbv	96
54) Bromoform	16.78	173	393498	9.86 ppbv #	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	604237	10.36 ppbv #	99
57) 4-Ethyltoluene	17.60	105	890832	9.76 ppbv	95
58) 1,3,5-Trimethylbenzene	17.68	105	751286	9.52 ppbv	95
59) 1,2,4-Trimethylbenzene	18.27	105	697131	9.48 ppbv	96
60) 1,3-Dichlorobenzene	18.82	146	405505	9.29 ppbv	97
61) 1,4-Dichlorobenzene	18.96	146	373856	9.31 ppbv	97
62) Benzyl chloride	19.17	91	515867	10.47 ppbv	96
63) 1,2-Dichlorobenzene	19.61	146	370861	9.22 ppbv	97
64) 1,2,4-Trichlorobenzene	22.76	180	48280	8.54 ppbv	96
65) Hexachlorobutadiene	22.96	225	120264	9.10 ppbv	99
66) Naphthalene	23.45	128	73266	8.49 ppbv	99

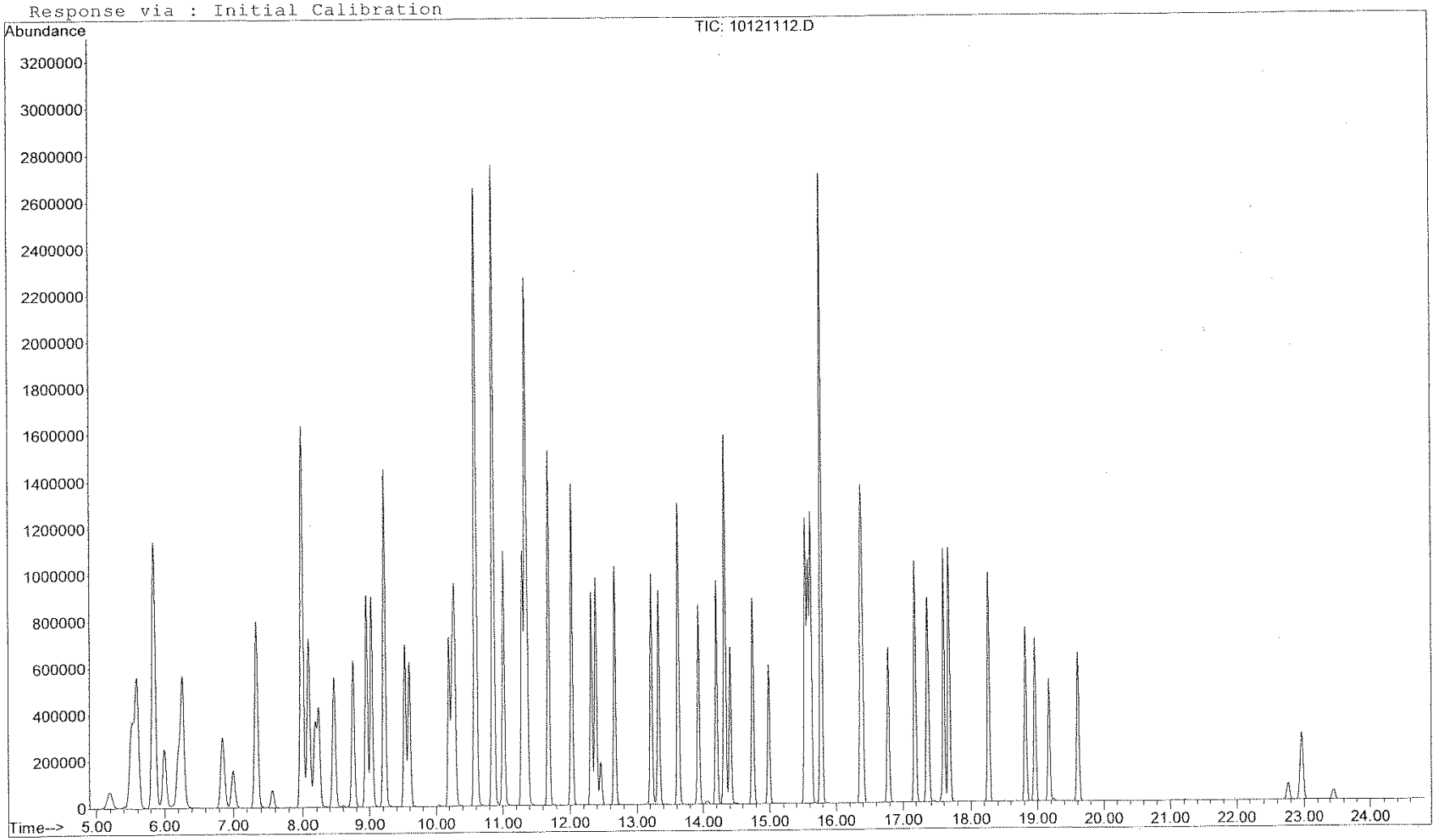
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\101211\10121112.D
Acq On : 12 Oct 2011 9:44 pm
Sample : ICV1 VOA1 101211
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 13 9:40 2011

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

Quant Results File: 101211V1.RES

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111013A **Run No.:** 43464

Analytical Run Date: 10/13/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

Calibration ID: 43433 **Column ID:** 0.25mm, 1.4umFT

Column Length: 30m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
VOA1 BFB3 101311	BFB_TUNE	TUNE	R43464	10/13/2011 6:13:00 PM	Robert Lynch		
VOA1 CCV2 101211	EPA_TO15	CCV	R43464	10/13/2011 6:54:00 PM	Robert Lynch		
RLVS3 VOA1 10121	EPA_TO15	RLVS	R43464	10/13/2011 7:36:00 PM	Robert Lynch		
BLK2 VOA1 101211	EPA_TO15	MBLK	R43464	10/13/2011 8:23:00 PM	Robert Lynch		
1110067-033B	EPA_TO15	SAMP	R43464	10/13/2011 9:11:00 PM	Robert Lynch		
1110067-034B	EPA_TO15	SAMP	R43464	10/13/2011 9:53:00 PM	Robert Lynch		Over-diluted sample. Will re-run at a lower dilution. Reporting here to show that sample and duplicate were analyzed.
1110067-034BDUP	EPA_TO15	SAMP	R43464	10/13/2011 10:37:00 PM	Robert Lynch		
1110067-035B	EPA_TO15	SAMP	R43464	10/13/2011 11:25:00 PM	Robert Lynch		
1110067-036B	EPA_TO15	SAMP	R43464	10/14/2011 12:19:00 AM	Robert Lynch		
1110067-037B	EPA_TO15	SAMP	R43464	10/14/2011 1:06:00 AM	Robert Lynch		
1109988-002B	EPA_TO15	SAMP	R43464	10/14/2011 1:48:00 AM	Robert Lynch	H	
1109988-003B	EPA_TO15	SAMP	R43464	10/14/2011 2:35:00 AM	Robert Lynch	H	
1109988-020A	EPA_TO15	SAMP	R43464	10/14/2011 3:17:00 AM	Robert Lynch	H	
1109988-012B	EPA_TO15	SAMP	R43464	10/14/2011 4:01:00 AM	Robert Lynch		
1109988-016B	EPA_TO15	SAMP	R43464	10/14/2011 4:44:00 AM	Robert Lynch		
1110067-001B	EPA_TO15	SAMP	R43464	10/14/2011 5:27:00 AM	Robert Lynch		
1110067-002B	EPA_TO15	SAMP	R43464	10/14/2011 6:11:00 AM	Robert Lynch		
1110067-003B	EPA_TO15	SAMP	R43464	10/14/2011 6:55:00 AM	Robert Lynch		
1110067-040B	EPA_TO15	SAMP	R43464	10/14/2011 9:37:00 AM	Robert Lynch		
1110067-041B	EPA_TO15	SAMP	R43464	10/14/2011 10:19:00 AM	Robert Lynch		
1110067-042B	EPA_TO15	SAMP	R43464	10/14/2011 11:01:00 AM	Robert Lynch		
1110067-038B	EPA_TO15	SAMP	R43464	10/14/2011 11:41:00 AM	Robert Lynch		
1110067-039B	EPA_TO15	SAMP	R43464	10/14/2011 12:22:00 PM	Robert Lynch		
1110067-015B	EPA_TO15	SAMP	R43464	10/14/2011 1:06:00 PM	Robert Lynch		
1110067-013B	EPA_TO15	SAMP	R43464	10/14/2011 1:47:00 PM	Robert Lynch		
1110067-014B	EPA_TO15	SAMP	R43464	10/14/2011 2:28:00 PM	Robert Lynch		
1110067-012B	EPA_TO15	SAMP	R43464	10/14/2011 3:12:00 PM	Robert Lynch		
1110067-012B	EPA_TO15	SAMP	R43464	10/14/2011 3:53:00 PM	Robert Lynch		
RLVS4 VOA1 10131	EPA_TO15	RLVS	R43464	10/14/2011 4:34:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43464

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
849095	VOA1 BFB3 101311	BFB_TUNE	TUNE	\1\DATA\101211	10/13/2011 6:13:	1	R43464		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0.6	0.6		0	0	0	0	0	0	0%	0	2	0%	
174	M		72.1	72.1		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.1	7.1		0	0	0	0	0	0	0%	4	9	0%	
176	M		100.6	100.6		0	0	0	0	0	0	0%	93	101	0%	
177	M		7	7		0	0	0	0	0	0	0%	5	9	0%	
50	M		23.1	23.1		0	0	0	0	0	0	0%	8	40	0%	
75	M		49.2	49.2		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
849096	VOA1 CCV2 101211	EPA_TO15	CCV	\1\DATA\101211	10/13/2011 6:54:	1	R43464		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	11.22	11.22		9.6	0	0	0.107	1	0	117%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	9.68	9.68		10	0	0	0.211	1	0	97%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.02	11.02		9.8	0	0	0.108	1	0	112%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	9.44	9.44		9.8	0	0	0.2	1	0	96%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.46	10.46		9.7	0	0	0.111	1	0	108%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.14	11.14		9.9	0	0	0.097	1	0	113%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	7.83	7.83		9.1	0	0	0.271	1	0	86%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.02	9.02		9.8	0	0	0.245	1	0	92%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.26	9.26		9.6	0	0	0.186	1	0	96%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	8.9	8.9		9.7	0	0	0.208	1	0	92%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.91	10.91		9.7	0	0	0.196	1	0	112%	70	130	0%	
1,2-Dichloropropane	A	ppbv	9.68	9.68		9.8	0	0	0.224	1	0	99%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	8.94	8.94		9.7	0	0	0.24	1	0	92%	70	130	0%	
1,3-Butadiene	A	ppbv	10.75	10.75		9.8	0	0	0.152	1	0	110%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.08	9.08		9.7	0	0	0.202	1	0	94%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
849096	VOA1 CCV2 101211	EPA_TO15	CCV	\I\DATA\101211	10/13/2011 6:54:	1	R43464		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,4-Dichlorobenzene	A	ppbv	9	9		9.6	0	0	0.194	1	0	94%	70	130	0%	
1,4-Dioxane	A	ppbv	9.09	9.09		9.6	0	0	0.128	1	0	95%	70	130	0%	
2-Butanone	A	ppbv	10.94	10.94		9.9	0	0	0.287	1	0	111%	70	130	0%	
2-Hexanone	A	ppbv	9.37	9.37		9.8	0	0	0.135	1	0	96%	70	130	0%	
2-Propanol	A	ppbv	10.92	10.92		10.1	0	0	0.329	1	0	108%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	9.74	9.74		10	0	0	0.157	1	0	97%	70	130	0%	
Acetone	A	ppbv	10.88	10.88		10	0	0	0.43	1	0	109%	70	130	0%	
Benzene	A	ppbv	10.12	10.12		9.6	0	0	0.126	1	0	105%	70	130	0%	
Benzyl chloride	A	ppbv	10.02	10.02		9.7	0	0	0.155	1	0	103%	70	130	0%	
Bromodichloromethane	A	ppbv	9.75	9.75		9.6	0	0	0.156	1	0	102%	70	130	0%	
Bromoform	A	ppbv	9.44	9.44		9.6	0	0	0.197	1	0	98%	70	130	0%	
Bromomethane	A	ppbv	10.31	10.31		9.3	0	0	0.075	1	0	111%	70	130	0%	
Carbon disulfide	A	ppbv	10.49	10.49		9.7	0	0	0.093	1	0	108%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.94	10.94		9.5	0	0	0.114	1	0	115%	70	130	0%	
Chlorobenzene	A	ppbv	9.59	9.59		9.9	0	0	0.275	1	0	97%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.54	9.54		9.2	0	0	0.165	1	0	104%	70	130	0%	
Chloroethane	A	ppbv	10.18	10.18		9.8	0	0	0.063	1	0	104%	70	130	0%	
Chloroform	A	ppbv	10.98	10.98		9.4	0	0	0.126	1	0	117%	70	130	0%	
Chloromethane	A	ppbv	10.25	10.25		9.8	0	0	0.104	1	0	105%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.38	10.38		9.8	0	0	0.107	1	0	106%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.45	9.45		9.5	0	0	0.166	1	0	99%	70	130	0%	
Cyclohexane	A	ppbv	11.4	11.4		9.8	0	0	0.684	2	0	116%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	10.2	10.2		9.2	0	0	0.086	1	0	111%	70	130	0%	
Ethanol	A	ppbv	9.84	9.84		9.2	0	0	1.962	5	0	107%	70	130	0%	
Ethyl acetate	A	ppbv	10.87	10.87		9.8	0	0	0.157	1	0	111%	70	130	0%	
Ethylbenzene	A	ppbv	9.61	9.61		9.8	0	0	0.737	2	0	98%	70	130	0%	
Heptane	A	ppbv	10.87	10.87		9.9	0	0	0.249	1	0	110%	70	130	0%	
Hexachlorobutadiene	A	ppbv	8.92	8.92		9.4	0	0	0.374	2	0	95%	70	130	0%	
m,p-Xylene	A	ppbv	19.75	19.75		19.2	0	0	0.524	2	0	103%	70	130	0%	
Methylene chloride	A	ppbv	10.92	10.92		10	0	0	2.077	5	0	109%	70	130	0%	
n-Hexane	A	ppbv	11.24	11.24		10.1	0	0	0.692	2	0	111%	70	130	0%	
Naphthalene	A	ppbv	7.73	7.73		9.2	0	0	0.247	1	0	84%	70	130	0%	
o-Xylene	A	ppbv	9.7	9.7		10	0	0	0.258	1	0	97%	70	130	0%	
Propylene	A	ppbv	11.24	11.24		10.2	0	0	0.075	1	0	110%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
849096	VOA1 CCV2 101211	EPA_TO15	CCV	\1\DATA\101211	10/13/2011 6:54:	1	R43464		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Styrene	A	ppbv	9.26	9.26		9.8	0	0	0.263	1	0	94%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.53	10.53		9.9	0	0	0.228	1	0	106%	70	130	0%	
Tetrachloroethene	A	ppbv	9.9	9.9		9.6	0	0	0.148	1	0	103%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.76	10.76		10	0	0	0.201	1	0	108%	70	130	0%	
Toluene	A	ppbv	9.47	9.47		9.8	0	0	0.158	1	0	97%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.97	10.97		9.8	0	0	0.117	1	0	112%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.07	9.07		9.1	0	0	0.171	1	0	100%	70	130	0%	
Trichloroethene	A	ppbv	9.75	9.75		9.6	0	0	0.119	1	0	102%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.92	10.92		9.6	0	0	0.148	1	0	114%	70	130	0%	
Vinyl acetate	A	ppbv	11.41	11.41		9.9	0	0	0.266	1	0	115%	70	130	0%	
Vinyl chloride	A	ppbv	10.03	10.03		9.4	0	0	0.072	1	0	107%	70	130	0%	
Xylenes, Total	C	ppbv	29.45	29.45		29.2	0	0	0.782	3	0	101%	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	13.16	13.16		12.5	0	0	0	0	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
849097	RLVS3 VOA1 10121	EPA_TO15	RLVS	\1\DATA\101211	10/13/2011 7:36:	1	R43464		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.87	0.87		0.996	0	0	0.107	1	0	87%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.15	1.15		1	0	0	0.211	1	0	115%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.9	0.9		0.98	0	0	0.108	1	0	92%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.81	0.81		0.98	0	0	0.2	1	0	83%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.111	1	0	106%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.05	1.05		0.99	0	0	0.097	1	0	106%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	1.97	1.97		0.91	0	0	0.271	1	0	216%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.36	1.36		0.98	0	0	0.245	1	0	139%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.82	0.82		0.96	0	0	0.186	1	0	85%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.39	1.39		0.97	0	0	0.208	1	0	143%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.09	1.09		0.97	0	0	0.196	1	0	112%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.82	0.82		0.98	0	0	0.224	1	0	84%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101211\10121139.D Vial: 1
Acq On : 13 Oct 2011 6:54 pm Operator: RACHEL HILL
Sample : VOA1 CCV2 101211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 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	134	0.00
2	T	Propylene	1.322	1.458	-10.3	131	0.00
3	T	Dichlorodifluoromethane	3.419	3.791	-10.9	138	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.236	2.449	-9.5	136	0.00
5	T	Chloromethane	1.526	1.646	-7.9	121	0.00
6	T	Vinyl chloride	1.358	1.449	-6.7	115	0.00
7	T	1,3-Butadiene	1.213	1.330	-9.6	110	0.00
8	T	Bromomethane	1.184	1.312	-10.8	132	0.00
9	T	Chloroethane	0.740	0.819	-10.7	127	0.00
10	T	Trichlorofluoromethane	2.967	3.376	-13.8	136	0.00
11	T	Ethanol	0.358	0.383	-7.0	119	-0.01
12	T	Freon113	2.415	2.716	-12.5	127	0.00
13	T	1,1-Dichloroethene	1.995	2.246	-12.6	128	0.00
14	T	Acetone	2.058	2.239	-8.8	119	0.00
15	T	Carbon disulfide	3.218	3.480	-8.1	125	0.00
16	T	2-Propanol	1.859	2.009	-8.1	122	0.00
17	T	Methylene chloride	1.589	1.734	-9.1	123	0.00
18	T	tert-Butyl Methyl Ether	2.698	2.871	-6.4	117	0.00
19	T	trans-1,2-Dichloroethene	1.922	2.153	-12.0	126	0.00
20	T	n-Hexane	2.121	2.361	-11.3	125	0.00
21	T	1,1-Dichloroethane	2.113	2.280	-7.9	120	0.00
22	T	Vinyl acetate	3.116	3.592	-15.3	115	0.00
23	T	cis-1,2-Dichloroethene	1.153	1.221	-5.9	124	0.00
24	T	2-Butanone	2.155	2.380	-10.4	118	0.00
25	T	Ethyl acetate	2.755	3.056	-10.9	116	0.00
26	T	Tetrahydrofuran	1.390	1.496	-7.6	116	0.00
27	T	Chloroform	2.488	2.786	-12.0	123	0.00
28	T	1,1,1-Trichloroethane	2.386	2.787	-16.8	129	0.00
29	T	Cyclohexane	2.184	2.539	-16.3	124	0.00
30	T	Carbon tetrachloride	2.076	2.390	-15.1	134	0.00
31	T	Benzene	2.902	3.060	-5.4	118	0.00
32	T	1,2-Dichloroethane	1.469	1.651	-12.4	122	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	139	0.00
34	T	Heptane	0.953	1.047	-9.9	125	0.00
35	T	Trichloroethene	0.472	0.480	-1.7	130	0.00
36	T	1,2-Dichloropropane	0.393	0.388	1.3	117	0.00
37	T	1,4-Dioxane	0.132	0.125	5.3	118	0.00
38	T	Bromodichloromethane	0.704	0.715	-1.6	125	0.00
39	T	cis-1,3-Dichloropropene	0.572	0.569	0.5	121	0.00
40	T	4-Methyl-2-pentanone	0.259	0.252	2.7	119	0.00
41	T	Toluene	1.005	0.971	3.4	118	0.00
42	T	trans-1,3-Dichloropropene	0.496	0.495	0.2	122	0.00
43	T	1,1,2-Trichloroethane	0.340	0.328	3.5	122	0.00
44	T	Tetrachloroethene	0.517	0.533	-3.1	133	0.00
45	T	2-Hexanone	0.552	0.528	4.3	116	0.00
46	T	Chlorodibromomethane	0.518	0.504	2.7	127	0.00
47	T	1,2-Dibromoethane	0.489	0.471	3.7	123	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101211\10121139.D Vial: 1
Acq On : 13 Oct 2011 6:54 pm Operator: RACHEL HILL
Sample : VOA1 CCV2 101211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	1.005	0.974	3.1	123	0.00
50	T	Ethylbenzene	1.727	1.693	2.0	121	0.00
51	T	m,p-Xylene	1.422	1.463	-2.9	122	0.00
52	T	o-Xylene	1.265	1.226	3.1	122	0.00
53	T	Styrene	0.862	0.815	5.5	121	0.00
54	T	Bromoform	0.630	0.619	1.7	126	0.00
55	S	4-Bromofluorobenzene	0.554	0.583	-5.2	142	0.00
56	T	1,1,2,2-Tetrachloroethane	0.920	0.891	3.2	123	0.00
57	T	4-Ethyltoluene	1.440	1.347	6.5	124	0.00
58	T	1,3,5-Trimethylbenzene	1.245	1.148	7.8	125	0.00
59	T	1,2,4-Trimethylbenzene	1.160	1.068	7.9	126	0.00
60	T	1,3-Dichlorobenzene	0.689	0.644	6.5	124	0.00
61	T	1,4-Dichlorobenzene	0.633	0.594	6.2	123	0.00
62	T	Benzyl chloride	0.777	0.803	-3.3	123	0.00
63	T	1,2-Dichlorobenzene	0.634	0.582	8.2	123	0.00
64	T	1,2,4-Trichlorobenzene	0.089	0.077	13.5	107	0.00
65	T	Hexachlorobutadiene	0.209	0.198	5.3	113	0.00
66		Naphthalene	0.136	0.114	16.2	104	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101211\10121139.D Vial: 1
Acq On : 13 Oct 2011 6:54 pm Operator: RACHEL HILL
Sample : VOA1 CCV2 101211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 13 19:19 2011 Quant Results File: 101211V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration
DataAcq Meth : 101211V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	535115	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1656512	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	977952	12.50 ppbv	0.00

System Monitoring Compounds					
55) 4-Bromofluorobenzene	17.18	95	569877	13.16 ppbv	0.00
Spiked Amount 12.500	Range 70 - 113		Recovery = 105.28%		

Target Compounds					Qvalue
2) Propylene	5.52	41	636464	11.24 ppbv	97
3) Dichlorodifluoromethane	5.59	85	1492908	10.20 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	996058	10.41 ppbv #	70
5) Chloromethane	6.00	50	669515	10.25 ppbv	99
6) Vinyl chloride	6.21	62	582965	10.03 ppbv #	98
7) 1,3-Butadiene	6.26	39	558056	10.75 ppbv	96
8) Bromomethane	6.84	94	522445	10.31 ppbv #	98
9) Chloroethane	7.00	64	322572	10.18 ppbv #	95
10) Trichlorofluoromethane	7.33	101	1387285	10.92 ppbv #	98
11) Ethanol	7.56	45	150665	9.84 ppbv	98
12) Freon113	7.99	101	1139492	11.02 ppbv	88
13) 1,1-Dichloroethene	8.09	61	951733	11.14 ppbv #	86
14) Acetone	8.18	43	958605	10.88 ppbv #	87
15) Carbon disulfide	8.46	76	1444912	10.49 ppbv #	100
16) 2-Propanol	8.23	45	868443	10.92 ppbv #	1
17) Methylene chloride	8.75	49	742349	10.92 ppbv #	76
18) tert-Butyl Methyl Ether	8.95	73	1216555	10.53 ppbv #	86
19) trans-1,2-Dichloroethene	9.04	61	903183	10.97 ppbv #	81
20) n-Hexane	9.22	57	1020799	11.24 ppbv #	86
21) 1,1-Dichloroethane	9.60	63	946617	10.46 ppbv #	97
22) Vinyl acetate	9.53	43	1522142	11.41 ppbv #	94
23) cis-1,2-Dichloroethene	10.28	96	512328	10.38 ppbv #	80
24) 2-Butanone	10.24	43	1008852	10.94 ppbv #	86
25) Ethyl acetate	10.20	43	1282225	10.87 ppbv #	99
26) Tetrahydrofuran	10.58	42	640261	10.76 ppbv #	87
27) Chloroform	10.60	83	1168879	10.98 ppbv	100
28) 1,1,1-Trichloroethane	10.85	97	1145355	11.22 ppbv	95
29) Cyclohexane	10.86	56	1065253	11.40 ppbv	86
30) Carbon tetrachloride	11.01	117	972146	10.94 ppbv	98
31) Benzene	11.30	78	1257684	10.12 ppbv	93
32) 1,2-Dichloroethane	11.37	62	685777	10.91 ppbv #	97
34) Heptane	11.34	43	1373652	10.87 ppbv #	87
35) Trichloroethene	12.03	130	610089	9.75 ppbv	92
36) 1,2-Dichloropropane	12.38	63	503585	9.68 ppbv	97
37) 1,4-Dioxane	12.46	88	159119	9.09 ppbv #	79
38) Bromodichloromethane	12.67	83	909629	9.75 ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	716322	9.45 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	334235	9.74 ppbv #	91
41) Toluene	13.62	91	1261333	9.47 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	597047	9.07 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	425403	9.44 ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101211\10121139.D Vial: 1
Acq On : 13 Oct 2011 6:54 pm Operator: RACHEL HILL
Sample : VOA1 CCV2 101211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 13 19:19 2011 Quant Results File: 101211V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration
DataAcq Meth : 101211V1

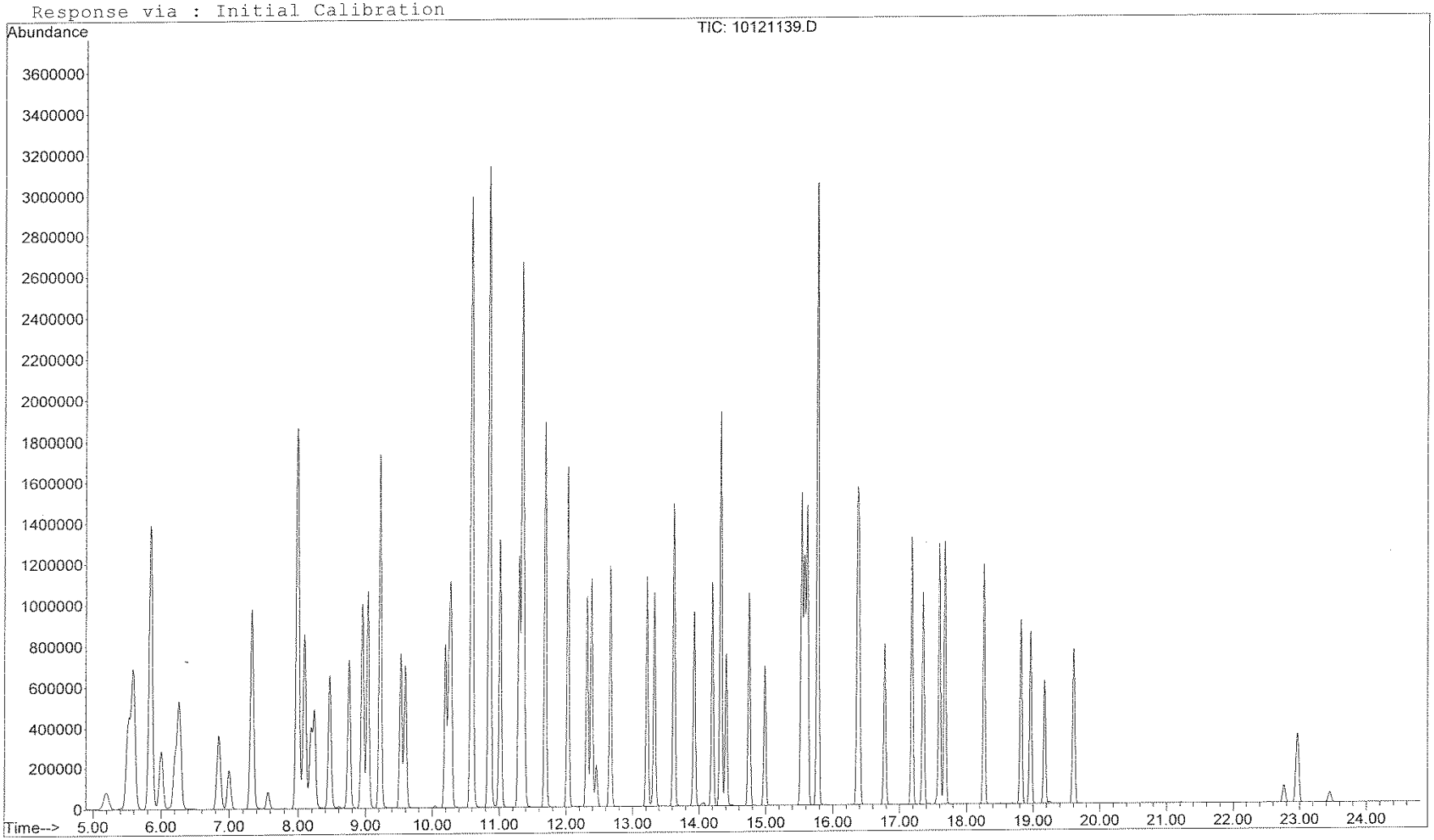
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.32	166	678281	9.90 ppbv	98
45) 2-Hexanone	14.41	43	685378	9.37 ppbv	91
46) Chlorodibromomethane	14.75	129	655082	9.54 ppbv	99
47) 1,2-Dibromoethane	14.98	107	599672	9.26 ppbv	99
49) Chlorobenzene	15.58	112	754410	9.59 ppbv #	84
50) Ethylbenzene	15.62	91	1298417	9.61 ppbv	90
51) m,p-Xylene	15.78	91	2198257	19.75 ppbv	89
52) o-Xylene	16.37	91	959492	9.70 ppbv #	86
53) Styrene	16.39	104	624547	9.26 ppbv	95
54) Bromoform	16.78	173	464837	9.44 ppbv #	98
56) 1,1,2,2-Tetrachloroethane	17.36	83	696774	9.68 ppbv #	98
57) 4-Ethyltoluene	17.60	105	1032811	9.17 ppbv	95
58) 1,3,5-Trimethylbenzene	17.68	105	871266	8.94 ppbv	95
59) 1,2,4-Trimethylbenzene	18.26	105	818531	9.02 ppbv	95
60) 1,3-Dichlorobenzene	18.82	146	488867	9.08 ppbv #	97
61) 1,4-Dichlorobenzene	18.96	146	446074	9.00 ppbv #	96
62) Benzyl chloride	19.17	91	609063	10.02 ppbv	95
63) 1,2-Dichlorobenzene	19.61	146	441851	8.90 ppbv #	97
64) 1,2,4-Trichlorobenzene	22.77	180	54666	7.83 ppbv	97
65) Hexachlorobutadiene	22.97	225	145527	8.92 ppbv	99
66) Naphthalene	23.45	128	82337	7.73 ppbv	99

(#) = qualifier out of range (m) = manual integration
10121139.D 101211V1.M Thu Oct 20 12:11:30 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101211\10121139.D Vial: 1
Acq On : 13 Oct 2011 6:54 pm Operator: RACHEL HILL
Sample : VOA1 CCV2 101211 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 13 19:19 2011 Quant Results File: 101211V1.RES

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111017A **Run No.:** 43521

Analytical Run Date: 10/17/2011 **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 101411	BFB_TUNE	TUNE	R43521	10/14/2011 7:16:00 PM	Robert Lynch		
1ppbv ICAL	EPA_TO15	ICAL	R43521	10/14/2011 8:40:00 PM	Robert Lynch		
10ppbv ICAL	EPA_TO15	ICAL	R43521	10/14/2011 9:21:00 PM	Robert Lynch		
12ppbv ICAL	EPA_TO15	ICAL	R43521	10/14/2011 10:02:00 PM	Robert Lynch		
15ppbv ICAL	EPA_TO15	ICAL	R43521	10/14/2011 10:44:00 PM	Robert Lynch		
20ppbv ICAL	EPA_TO15	ICAL	R43521	10/14/2011 11:25:00 PM	Robert Lynch		
30ppbv ICAL	EPA_TO15	ICAL	R43521	10/15/2011 4:48:00 AM	Robert Lynch		
50ppbv ICAL	EPA_TO15	ICAL	R43521	10/15/2011 5:31:00 AM	Robert Lynch		
BFB1 VOA2 101411	BFB_TUNE	TUNE	R43521	10/15/2011 6:12:00 AM	Robert Lynch		
ICV1 VOA1 101411	EPA_TO15	ICV	R43521	10/15/2011 6:53:00 AM	Robert Lynch		
BFB1 VOA2 101711	BFB_TUNE	TUNE	R43521	10/17/2011 11:34:00 AM	Robert Lynch		
CCV1 VOA1 101711	EPA_TO15	CCV	R43521	10/17/2011 12:15:00 PM	Robert Lynch		
RLVS1 VOA1 10171	EPA_TO15	RLVS	R43521	10/17/2011 1:04:00 PM	Robert Lynch		
Blank VOA1 10171	EPA_TO15	MBLK	R43521	10/17/2011 1:59:00 PM	Robert Lynch		
1110367-001B	EPA_TO15	SAMP	R43521	10/17/2011 2:39:00 PM	Robert Lynch		
1110485-001A	EPA_TO15	SAMP	R43521	10/17/2011 3:20:00 PM	Robert Lynch		
1110485-001A	EPA_TO15	SAMP	R43521	10/17/2011 4:08:00 PM	Robert Lynch		
1110367-002B	EPA_TO15	SAMP	R43521	10/17/2011 4:48:00 PM	Robert Lynch		
1110067-024B	EPA_TO15	SAMP	R43521	10/17/2011 5:28:00 PM	Robert Lynch		
1110067-025B	EPA_TO15	SAMP	R43521	10/17/2011 6:09:00 PM	Robert Lynch		
1110067-034B	EPA_TO15	SAMP	R43521	10/17/2011 6:52:00 PM	Robert Lynch		
1110367-003B	EPA_TO15	SAMP	R43521	10/17/2011 7:33:00 PM	Robert Lynch		
1110367-004B	EPA_TO15	SAMP	R43521	10/17/2011 8:14:00 PM	Robert Lynch		
1110367-005B	EPA_TO15	SAMP	R43521	10/17/2011 8:54:00 PM	Robert Lynch		
1110367-006B	EPA_TO15	SAMP	R43521	10/17/2011 9:35:00 PM	Robert Lynch		
1110367-006Bdup	EPA_TO15	DUP	R43521	10/17/2011 10:16:00 PM	Robert Lynch		
1110367-007B	EPA_TO15	SAMP	R43521	10/17/2011 11:03:00 PM	Robert Lynch		
1110367-008B	EPA_TO15	SAMP	R43521	10/17/2011 11:48:00 PM	Robert Lynch		
1110367-009B	EPA_TO15	SAMP	R43521	10/18/2011 12:32:00 AM	Robert Lynch		
1110367-010B	EPA_TO15	SAMP	R43521	10/18/2011 1:16:00 AM	Robert Lynch		
1110367-011B	EPA_TO15	SAMP	R43521	10/18/2011 2:00:00 AM	Robert Lynch		
1110367-012B	EPA_TO15	SAMP	R43521	10/18/2011 2:44:00 AM	Robert Lynch		
1110367-013B	EPA_TO15	SAMP	R43521	10/18/2011 3:28:00 AM	Robert Lynch		
1110367-014B	EPA_TO15	SAMP	R43521	10/18/2011 6:47:00 AM	Robert Lynch		
RLVS2 VOA1 10171	EPA_TO15	RLVS	R43521	10/18/2011 10:11:00 AM	Robert Lynch		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850628	ICV1 VOA1 101411	EPA_TO15	ICV	\1\DATA\101411	10/15/2011 6:53:	1	R43521		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	11.44	11.44		9.6	0	0	0.107	1	0	119%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.69	10.69		10	0	0	0.211	1	0	107%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.29	11.29		9.8	0	0	0.108	1	0	115%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.36	10.36		9.8	0	0	0.2	1	0	106%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.13	11.13		9.7	0	0	0.111	1	0	115%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.08	11.08		9.9	0	0	0.097	1	0	112%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.83	9.83		9.1	0	0	0.271	1	0	108%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.99	9.99		9.8	0	0	0.245	1	0	102%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.28	10.28		9.6	0	0	0.186	1	0	107%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.12	10.12		9.7	0	0	0.208	1	0	104%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.34	11.34		9.7	0	0	0.196	1	0	117%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.83	10.83		9.8	0	0	0.224	1	0	111%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.78	9.78		9.7	0	0	0.24	1	0	101%	70	130	0%	
1,3-Butadiene	A	ppbv	12.48	12.48		9.8	0	0	0.152	1	0	127%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.04	10.04		9.7	0	0	0.202	1	0	104%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	10.12	10.12		9.6	0	0	0.194	1	0	105%	70	130	0%	
1,4-Dioxane	A	ppbv	10.34	10.34		9.6	0	0	0.128	1	0	108%	70	130	0%	
2-Butanone	A	ppbv	11.18	11.18		9.9	0	0	0.287	1	0	113%	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	11.23	11.23		10.1	0	0	0.329	1	0	111%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.69	10.69		10	0	0	0.157	1	0	107%	70	130	0%	
Acetone	A	ppbv	11.36	11.36		10	0	0	0.43	1	0	114%	70	130	0%	
Benzene	A	ppbv	10.92	10.92		9.6	0	0	0.126	1	0	114%	70	130	0%	
Benzyl chloride	A	ppbv	11.36	11.36		9.7	0	0	0.155	1	0	117%	70	130	0%	
Bromodichloromethane	A	ppbv	10.61	10.61		9.6	0	0	0.156	1	0	111%	70	130	0%	
Bromoform	A	ppbv	10.31	10.31		9.6	0	0	0.197	1	0	107%	70	130	0%	
Bromomethane	A	ppbv	10.08	10.08		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.74	10.74		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.84	10.84		9.5	0	0	0.114	1	0	114%	70	130	0%	M
Chlorobenzene	A	ppbv	10.43	10.43		9.9	0	0	0.275	1	0	105%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.47	10.47		9.2	0	0	0.165	1	0	114%	70	130	0%	
Chloroethane	A	ppbv	10.26	10.26		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	11.52	11.52		9.4	0	0	0.126	1	0	123%	70	130	0%	
Chloromethane	A	ppbv	10.3	10.3		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
850628	ICV1 VOA1 101411	EPA_TO15	ICV	\1\DATA\101411	10/15/2011 6:53:	1	R43521		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	10.75	10.75		9.8	0	0	0.107	1	0	110%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	10.42	10.42		9.5	0	0	0.166	1	0	110%	70	130	0%	
Cyclohexane	A	ppbv	11.65	11.65		9.8	0	0	0.684	2	0	119%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.55	9.55		9.2	0	0	0.086	1	0	104%	70	130	0%	
Ethanol	A	ppbv	10.64	10.64		9.2	0	0	1.962	5	0	116%	70	130	0%	
Ethyl acetate	A	ppbv	11.27	11.27		9.8	0	0	0.157	1	0	115%	70	130	0%	
Ethylbenzene	A	ppbv	10.44	10.44		9.8	0	0	0.737	2	0	107%	70	130	0%	
Heptane	A	ppbv	11.4	11.4		9.9	0	0	0.249	1	0	115%	70	130	0%	
Hexachlorobutadiene	A	ppbv	10.51	10.51		9.4	0	0	0.374	2	0	112%	70	130	0%	
m,p-Xylene	A	ppbv	21.49	21.49		19.2	0	0	0.524	2	0	112%	70	130	0%	
Methylene chloride	A	ppbv	10.97	10.97		10	0	0	2.077	5	0	110%	70	130	0%	
n-Hexane	A	ppbv	11.31	11.31		10.1	0	0	0.692	2	0	112%	70	130	0%	
Naphthalene	A	ppbv	10.04	10.04		9.2	0	0	0.247	1	0	109%	70	130	0%	
o-Xylene	A	ppbv	10.49	10.49		10	0	0	0.258	1	0	105%	70	130	0%	
Propylene	A	ppbv	10.64	10.64		10.2	0	0	0.075	1	0	104%	70	130	0%	
Styrene	A	ppbv	10.27	10.27		9.8	0	0	0.263	1	0	105%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.35	11.35		9.9	0	0	0.228	1	0	115%	70	130	0%	
Tetrachloroethene	A	ppbv	10.1	10.1		9.6	0	0	0.148	1	0	105%	70	130	0%	
Tetrahydrofuran	A	ppbv	11.37	11.37		10	0	0	0.201	1	0	114%	70	130	0%	
Toluene	A	ppbv	10.62	10.62		9.8	0	0	0.158	1	0	108%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.06	11.06		9.8	0	0	0.117	1	0	113%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.04	10.04		9.1	0	0	0.171	1	0	110%	70	130	0%	
Trichloroethene	A	ppbv	10.16	10.16		9.6	0	0	0.119	1	0	106%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.62	10.62		9.6	0	0	0.148	1	0	111%	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	10.69	10.69		9.4	0	0	0.072	1	0	114%	70	130	0%	
Xylenes, Total	C	ppbv	31.98	31.98		29.2	0	0	0.782	3	0	110%	70	130	0%	
1,4-Difluorobenzene	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
Bromochloromethane	I	ppbv	12.5	12.5		1.25	0	0	0	0	0	1000%			0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%			0%	
4-Bromofluorobenzene	S	ppbv	12.91	12.91		12.5	0	0	0	0	0	103%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850620	BFB1 VOA2 101711	BFB_TUNE	TUNE	\1\DATA\101711	10/17/2011 11:3	1	R43521		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		61.7	61.7		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.4	7.4		0	0	0	0	0	0	0%	4	9	0%	
176	M		100.7	100.7		0	0	0	0	0	0	0%	93	101	0%	
177	M		7.6	7.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		29.7	29.7		0	0	0	0	0	0	0%	8	40	0%	
75	M		54.6	54.6		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		7.9	7.9		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850629	CCV1 VOA1 101711	EPA_TO15	CCV	\1\DATA\101711	10/17/2011 12:1	1	R43521		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	11.45	11.45		9.6	0	0	0.107	1	0	119%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.14	10.14		10	0	0	0.211	1	0	101%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	11.44	11.44		9.8	0	0	0.108	1	0	117%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	10.31	10.31		9.8	0	0	0.2	1	0	105%	70	130	0%	
1,1-Dichloroethane	A	ppbv	11.13	11.13		9.7	0	0	0.111	1	0	115%	70	130	0%	
1,1-Dichloroethene	A	ppbv	11.36	11.36		9.9	0	0	0.097	1	0	115%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	9.89	9.89		9.1	0	0	0.271	1	0	109%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.38	9.38		9.8	0	0	0.245	1	0	96%	70	130	0%	
1,2-Dibromoethane	A	ppbv	10.26	10.26		9.6	0	0	0.186	1	0	107%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	9.36	9.36		9.7	0	0	0.208	1	0	96%	70	130	0%	
1,2-Dichloroethane	A	ppbv	11.34	11.34		9.7	0	0	0.196	1	0	117%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.58	10.58		9.8	0	0	0.224	1	0	108%	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	12.69	12.69		9.8	0	0	0.152	1	0	129%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	9.62	9.62		9.7	0	0	0.202	1	0	99%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	9.73	9.73		9.6	0	0	0.194	1	0	101%	70	130	0%	
1,4-Dioxane	A	ppbv	9.99	9.99		9.6	0	0	0.128	1	0	104%	70	130	0%	
2-Butanone	A	ppbv	10.28	10.28		9.9	0	0	0.287	1	0	104%	70	130	0%	
2-Hexanone	A	ppbv	10.27	10.27		9.8	0	0	0.135	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
850629	CCV1 VOA1 101711	EPA_TO15	CCV	\1\DATA\101711	10/17/2011 12:1	1	R43521		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
2-Propanol	A	ppbv	11.12	11.12		10.1	0	0	0.329	1	0	110%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.58	10.58		10	0	0	0.157	1	0	106%	70	130	0%	
Acetone	A	ppbv	11.08	11.08		10	0	0	0.43	1	0	111%	70	130	0%	
Benzene	A	ppbv	10.65	10.65		9.6	0	0	0.126	1	0	111%	70	130	0%	
Benzyl chloride	A	ppbv	11.19	11.19		9.7	0	0	0.155	1	0	115%	70	130	0%	
Bromodichloromethane	A	ppbv	10.71	10.71		9.6	0	0	0.156	1	0	112%	70	130	0%	
Bromoform	A	ppbv	10.53	10.53		9.6	0	0	0.197	1	0	110%	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	10.74	10.74		9.7	0	0	0.093	1	0	111%	70	130	0%	
Carbon tetrachloride	A	ppbv	11.33	11.33		9.5	0	0	0.114	1	0	119%	70	130	0%	
Chlorobenzene	A	ppbv	10.58	10.58		9.9	0	0	0.275	1	0	107%	70	130	0%	
Chlorodibromomethane	A	ppbv	10.79	10.79		9.2	0	0	0.165	1	0	117%	70	130	0%	
Chloroethane	A	ppbv	10.27	10.27		9.8	0	0	0.063	1	0	105%	70	130	0%	
Chloroform	A	ppbv	11.39	11.39		9.4	0	0	0.126	1	0	121%	70	130	0%	
Chloromethane	A	ppbv	9.58	9.58		9.8	0	0	0.104	1	0	98%	70	130	0%	
cis-1,2-Dichloroethene	A	ppbv	10.74	10.74		9.8	0	0	0.107	1	0	110%	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	11.51	11.51		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.68	9.68		9.2	0	0	0.086	1	0	105%	70	130	0%	
Ethanol	A	ppbv	10.47	10.47		9.2	0	0	1.962	5	0	114%	70	130	0%	
Ethyl acetate	A	ppbv	10.72	10.72		9.8	0	0	0.157	1	0	109%	70	130	0%	
Ethylbenzene	A	ppbv	10.58	10.58		9.8	0	0	0.737	2	0	108%	70	130	0%	
Heptane	A	ppbv	11.34	11.34		9.9	0	0	0.249	1	0	115%	70	130	0%	
Hexachlorobutadiene	A	ppbv	11.5	11.5		9.4	0	0	0.374	2	0	122%	70	130	0%	
m,p-Xylene	A	ppbv	21.98	21.98		19.2	0	0	0.524	2	0	114%	70	130	0%	
Methylene chloride	A	ppbv	10.86	10.86		10	0	0	2.077	5	0	109%	70	130	0%	
n-Hexane	A	ppbv	11.28	11.28		10.1	0	0	0.692	2	0	112%	70	130	0%	
Naphthalene	A	ppbv	10.22	10.22		9.2	0	0	0.247	1	0	111%	70	130	0%	
o-Xylene	A	ppbv	10.61	10.61		10	0	0	0.258	1	0	106%	70	130	0%	
Propylene	A	ppbv	10.55	10.55		10.2	0	0	0.075	1	0	103%	70	130	0%	
Styrene	A	ppbv	10.2	10.2		9.8	0	0	0.263	1	0	104%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	11.23	11.23		9.9	0	0	0.228	1	0	113%	70	130	0%	
Tetrachloroethene	A	ppbv	10.52	10.52		9.6	0	0	0.148	1	0	110%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.99	10.99		10	0	0	0.201	1	0	110%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850629	CCV1 VOA1 101711	EPA_TO15	CCV	.\1\DATA\101711	10/17/2011 12:1	1	R43521		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Toluene	A	ppbv	10.49	10.49		9.8	0	0	0.158	1	0	107%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	11.12	11.12		9.8	0	0	0.117	1	0	113%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	10.01	10.01		9.1	0	0	0.171	1	0	110%	70	130	0%	
Trichloroethene	A	ppbv	10.49	10.49		9.6	0	0	0.119	1	0	109%	70	130	0%	
Trichlorofluoromethane	A	ppbv	11.15	11.15		9.6	0	0	0.148	1	0	116%	70	130	0%	
Vinyl acetate	A	ppbv	11.93	11.93		9.9	0	0	0.266	1	0	121%	70	130	0%	
Vinyl chloride	A	ppbv	10.98	10.98		9.4	0	0	0.072	1	0	117%	70	130	0%	
Xylenes, Total	C	ppbv	32.59	32.59		29.2	0	0	0.782	3	0	112%	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	12.87	12.87		12.5	0	0	0	0	0	103%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850630	RLVS1 VOA1 10171	EPA_TO15	RLVS	.\1\DATA\101711	10/17/2011 1:04:	1	R43521		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
1,1,1-Trichloroethane	A	ppbv	0.85	0.85		0.996	0	0	0.107	1	0	85%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	1.19	1.19		1	0	0	0.211	1	0	119%	70	130	0%	
1,1,2-Trichloro-1,2,2-trifluoroethane	A	ppbv	0.89	0.89		0.98	0	0	0.108	1	0	91%	70	130	0%	
1,1,2-Trichloroethane	A	ppbv	0.81	0.81		0.98	0	0	0.2	1	0	83%	70	130	0%	
1,1-Dichloroethane	A	ppbv	1	1		0.97	0	0	0.111	1	0	103%	70	130	0%	
1,1-Dichloroethene	A	ppbv	1.01	1.01		0.99	0	0	0.097	1	0	102%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	2.09	2.09		0.91	0	0	0.271	1	0	230%	70	130	0%	S
1,2,4-Trimethylbenzene	A	ppbv	1.39	1.39		0.98	0	0	0.245	1	0	142%	70	130	0%	S
1,2-Dibromoethane	A	ppbv	0.82	0.82		0.96	0	0	0.186	1	0	85%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	1.5	1.5		0.97	0	0	0.208	1	0	155%	70	130	0%	S
1,2-Dichloroethane	A	ppbv	1.03	1.03		0.97	0	0	0.196	1	0	106%	70	130	0%	
1,2-Dichloropropane	A	ppbv	0.83	0.83		0.98	0	0	0.224	1	0	85%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	1.3	1.3		0.97	0	0	0.24	1	0	134%	70	130	0%	S
1,3-Butadiene	A	ppbv	1.21	1.21		0.98	0	0	0.152	1	0	123%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	1.4	1.4		0.97	0	0	0.202	1	0	144%	70	130	0%	S
1,4-Dichlorobenzene	A	ppbv	1.33	1.33		0.96	0	0	0.194	1	0	139%	70	130	0%	S

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101411\10141113.D Vial: 2
Acq On : 15 Oct 2011 6:53 am Operator: RACHEL HILL
Sample : ICV1 VOA1 101411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Bromochloromethane	1.000	1.000	0.0	114	0.00
2	T	Propylene	1.302	1.358	-4.3	106	0.00
3	T	Dichlorodifluoromethane	3.352	3.477	-3.7	109	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.188	2.268	-3.7	109	0.00
5	T	Chloromethane	1.477	1.601	-8.4	103	0.00
6	T	Vinyl chloride	1.327	1.509	-13.7	104	0.00
7	T	1,3-Butadiene	1.197	1.524	-27.3	106	0.00
8	T	Bromomethane	1.174	1.273	-8.4	111	0.00
9	T	Chloroethane	0.734	0.818	-11.4	110	0.01
10	T	Trichlorofluoromethane	2.926	3.236	-10.6	112	0.00
11	T	Ethanol	0.344	0.398	-15.7	110	-0.01
12	T	Freon113	2.350	2.706	-15.1	111	0.00
13	T	1,1-Dichloroethene	1.965	2.199	-11.9	107	0.00
14	T	Acetone	1.995	2.266	-13.6	108	0.00
15	T	Carbon disulfide	3.197	3.539	-10.7	109	0.00
16	T	2-Propanol	1.800	2.001	-11.2	108	0.00
17	T	Methylene chloride	1.562	1.713	-9.7	106	0.00
18	T	tert-Butyl Methyl Ether	2.572	2.949	-14.7	110	0.00
19	T	trans-1,2-Dichloroethene	1.880	2.123	-12.9	108	0.00
20	T	n-Hexane	2.078	2.328	-12.0	107	0.00
21	T	1,1-Dichloroethane	2.078	2.384	-14.7	109	0.00
22	T	Vinyl acetate	2.954	3.692	-25.0	107	0.00
23	T	cis-1,2-Dichloroethene	1.127	1.236	-9.7	109	0.00
24	T	2-Butanone	2.143	2.421	-13.0	108	0.00
25	T	Ethyl acetate	2.711	3.116	-14.9	106	0.00
26	T	Tetrahydrofuran	1.342	1.525	-13.6	106	0.00
27	T	Chloroform	2.415	2.840	-17.6	111	0.00
28	T	1,1,1-Trichloroethane	2.311	2.754	-19.2	112	0.00
29	T	Cyclohexane	2.138	2.542	-18.9	107	0.00
30	T	Carbon tetrachloride	2.018	2.304	-14.2	113	0.00
31	T	Benzene	2.830	3.218	-13.7	109	0.00
32	T	1,2-Dichloroethane	1.417	1.656	-16.9	109	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
34	T	Heptane	0.884	1.017	-15.0	108	0.00
35	T	Trichloroethene	0.438	0.463	-5.7	111	0.00
36	T	1,2-Dichloropropane	0.363	0.402	-10.7	108	0.00
37	T	1,4-Dioxane	0.125	0.135	-8.0	111	0.00
38	T	Bromodichloromethane	0.649	0.718	-10.6	112	0.00
39	T	cis-1,3-Dichloropropene	0.530	0.581	-9.6	110	0.00
40	T	4-Methyl-2-pentanone	0.242	0.259	-7.0	108	0.00
41	T	Toluene	0.932	1.010	-8.4	110	0.00
42	T	trans-1,3-Dichloropropene	0.457	0.504	-10.3	112	0.00
43	T	1,1,2-Trichloroethane	0.316	0.334	-5.7	110	0.00
44	T	Tetrachloroethene	0.481	0.506	-5.2	112	0.00
45	T	2-Hexanone	0.518	0.555	-7.1	109	0.00
46	T	Chlorodibromomethane	0.479	0.512	-6.9	113	0.00
47	T	1,2-Dibromoethane	0.455	0.487	-7.0	112	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101411\10141113.D Vial: 2
Acq On : 15 Oct 2011 6:53 am Operator: RACHEL HILL
Sample : ICV1 VOA1 101411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.928	0.978	-5.4	111	0.00
50	T	Ethylbenzene	1.589	1.694	-6.6	111	0.00
51	T	m,p-Xylene	1.301	1.456	-11.9	112	0.00
52	T	o-Xylene	1.164	1.221	-4.9	111	0.00
53	T	Styrene	0.796	0.834	-4.8	111	0.00
54	T	Bromoform	0.579	0.622	-7.4	114	0.00
55	S	4-Bromofluorobenzene	0.565	0.584	-3.4	116	0.00
56	T	1,1,2,2-Tetrachloroethane	0.858	0.917	-6.9	110	0.00
57	T	4-Ethyltoluene	1.357	1.384	-2.0	111	0.00
58	T	1,3,5-Trimethylbenzene	1.163	1.172	-0.8	112	0.00
59	T	1,2,4-Trimethylbenzene	1.086	1.107	-1.9	112	0.00
60	T	1,3-Dichlorobenzene	0.649	0.672	-3.5	111	0.00
61	T	1,4-Dichlorobenzene	0.599	0.631	-5.3	113	0.00
62	T	Benzyl chloride	0.722	0.846	-17.2	113	0.00
63	T	1,2-Dichlorobenzene	0.595	0.621	-4.4	111	0.00
64	T	1,2,4-Trichlorobenzene	0.087	0.094	-8.0	114	0.00
65	T	Hexachlorobutadiene	0.203	0.227	-11.8	113	0.00
66		Naphthalene	0.134	0.146	-9.0	117	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101411\10141113.D Vial: 2
Acq On : 15 Oct 2011 6:53 am Operator: RACHEL HILL
Sample : ICV1 VOA1 101411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 18 7:08 2011 Quant Results File: 101411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration
DataAcq Meth : 101411V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	474095	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1481708	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	908310	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	530234	12.91 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 103.28%

Target Compounds					Qvalue
2) Propylene	5.51	41	525272	10.64 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1213395	9.55 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.84	135	817033	9.85 ppbv #	69
5) Chloromethane	6.00	50	576850	10.30 ppbv	99
6) Vinyl chloride	6.20	62	538080	10.69 ppbv #	98
7) 1,3-Butadiene	6.26	39	566454	12.48 ppbv	94
8) Bromomethane	6.84	94	448863	10.08 ppbv #	98
9) Chloroethane	7.00	64	285573	10.26 ppbv	96
10) Trichlorofluoromethane	7.33	101	1178359	10.62 ppbv #	97
11) Ethanol	7.56	45	138755	10.64 ppbv	99
12) Freon113	7.99	101	1005829	11.29 ppbv	87
13) 1,1-Dichloroethene	8.09	61	825832	11.08 ppbv #	87
14) Acetone	8.18	43	859412	11.36 ppbv #	89
15) Carbon disulfide	8.46	76	1301984	10.74 ppbv #	99
16) 2-Propanol	8.23	45	766335	11.23 ppbv #	1
17) Methylene chloride	8.75	49	649596	10.97 ppbv #	78
18) tert-Butyl Methyl Ether	8.95	73	1107378	11.35 ppbv #	88
19) trans-1,2-Dichloroethene	9.04	61	788921	11.06 ppbv #	82
20) n-Hexane	9.22	57	891873	11.31 ppbv #	88
21) 1,1-Dichloroethane	9.59	63	877168	11.13 ppbv #	97
22) Vinyl acetate	9.53	43	1386137	12.37 ppbv #	95
23) cis-1,2-Dichloroethene	10.27	96	459584	10.75 ppbv #	81
24) 2-Butanone	10.24	43	908966	11.18 ppbv #	87
25) Ethyl acetate	10.20	43	1158198	11.27 ppbv #	99
26) Tetrahydrofuran	10.58	42	578352	11.37 ppbv	88
27) Chloroform	10.60	83	1055576	11.52 ppbv	100
28) 1,1,1-Trichloroethane	10.86	97	1002806	11.44 ppbv #	94
29) Cyclohexane	10.86	56	944920	11.65 ppbv	86
30) Carbon tetrachloride	11.01	117	830002m	10.84 ppbv	
31) Benzene	11.29	78	1171856	10.92 ppbv	94
32) 1,2-Dichloroethane	11.37	62	609355	11.34 ppbv #	97
34) Heptane	11.35	43	1194000	11.40 ppbv #	87
35) Trichloroethene	12.03	130	527100	10.16 ppbv	92
36) 1,2-Dichloropropane	12.38	63	466640	10.83 ppbv	97
37) 1,4-Dioxane	12.46	88	153461	10.34 ppbv #	81
38) Bromodichloromethane	12.66	83	816740	10.61 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	654721	10.42 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	306578	10.69 ppbv #	91
41) Toluene	13.63	91	1173821	10.62 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	543748	10.04 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	388571	10.36 ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101411\10141113.D Vial: 2
Acq On : 15 Oct 2011 6:53 am Operator: RACHEL HILL
Sample : ICV1 VOA1 101411 Inst : VOA 1
Misc : ICV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 18 7:08 2011 Quant Results File: 101411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration
DataAcq Meth : 101411V1

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
44) Tetrachloroethene	14.33	166	576070	10.10 ppbv	98
45) 2-Hexanone	14.41	43	645001	10.51 ppbv	92
46) Chlorodibromomethane	14.75	129	594907	10.47 ppbv	99
47) 1,2-Dibromoethane	14.99	107	554356	10.28 ppbv	99
49) Chlorobenzene	15.58	112	703348	10.43 ppbv #	85
50) Ethylbenzene	15.62	91	1205988	10.44 ppbv	90
51) m,p-Xylene	15.78	91	2031299	21.49 ppbv	89
52) o-Xylene	16.37	91	887494	10.49 ppbv #	87
53) Styrene	16.39	104	593600	10.27 ppbv	96
54) Bromoform	16.78	173	433932	10.31 ppbv #	97
56) 1,1,2,2-Tetrachloroethane	17.36	83	666055	10.69 ppbv #	99
57) 4-Ethyltoluene	17.60	105	985315	9.99 ppbv	95
58) 1,3,5-Trimethylbenzene	17.68	105	826324	9.78 ppbv	96
59) 1,2,4-Trimethylbenzene	18.27	105	788279	9.99 ppbv	96
60) 1,3-Dichlorobenzene	18.82	146	473614	10.04 ppbv #	97
61) 1,4-Dichlorobenzene	18.96	146	440217	10.12 ppbv #	97
62) Benzyl chloride	19.17	91	596357	11.36 ppbv	96
63) 1,2-Dichlorobenzene	19.61	146	437724	10.12 ppbv	97
64) 1,2,4-Trichlorobenzene	22.76	180	62486	9.83 ppbv	97
65) Hexachlorobutadiene	22.96	225	155310	10.51 ppbv	98
66) Naphthalene	23.45	128	97827	10.04 ppbv	99

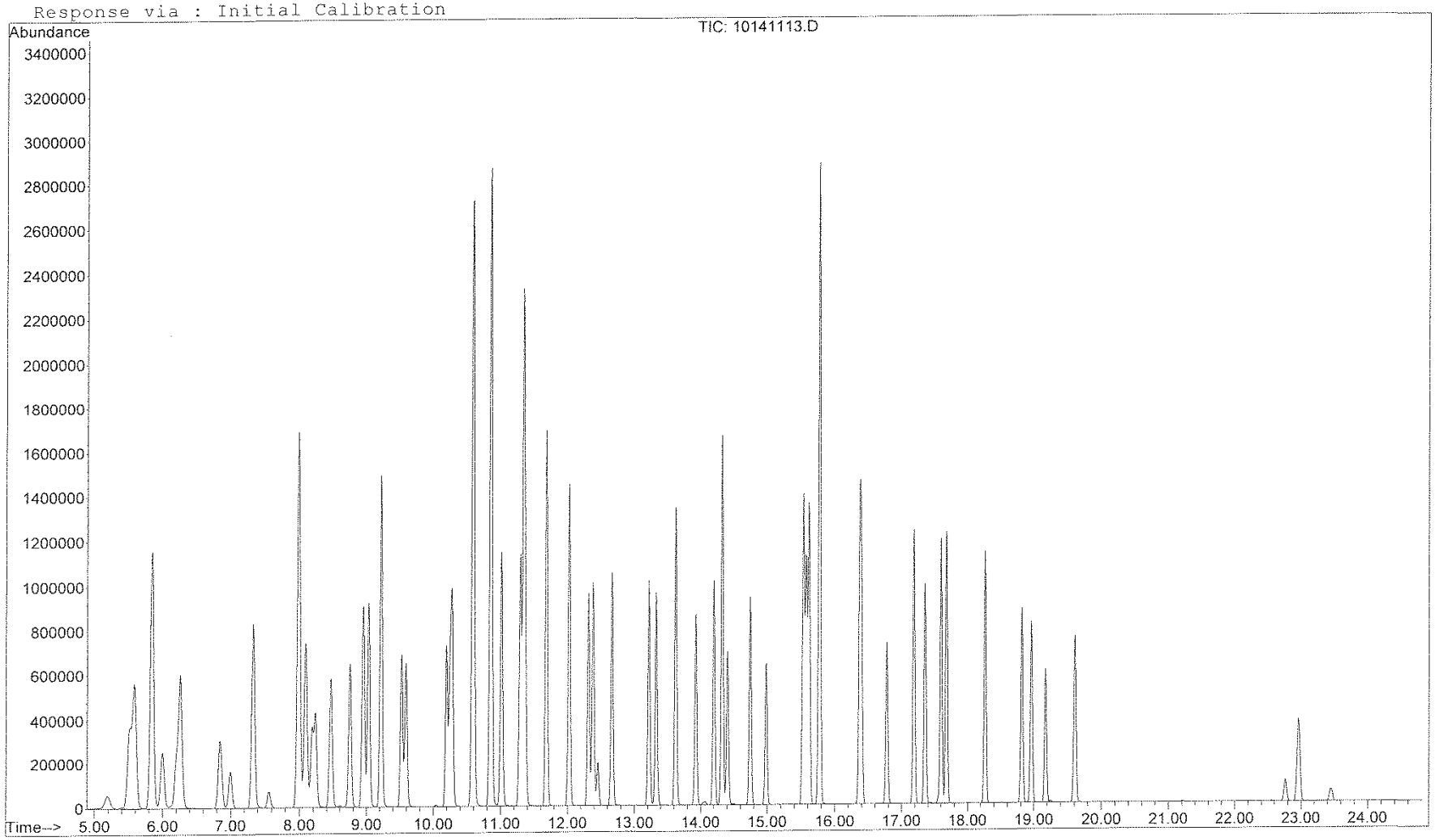
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101411\10141113.D
Acq On : 15 Oct 2011 6:53 am
Sample : ICV1 VOA1 101411
Misc : ICV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 18 7:08 2011

Vial: 2
Operator: RACHEL HILL
Inst : VOA 1
Multiplr: 1.00
Quant Results File: 101411V1.RES

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101711\10171102.D Vial: 2
Acq On : 17 Oct 2011 12:15 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101711 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 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	130	0.00
2	T	Propylene	1.302	1.347	-3.5	120	0.00
3	T	Dichlorodifluoromethane	3.352	3.525	-5.2	127	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.188	2.354	-7.6	130	0.00
5	T	Chloromethane	1.477	1.490	-0.9	110	0.00
6	T	Vinyl chloride	1.327	1.550	-16.8	122	0.01
7	T	1,3-Butadiene	1.197	1.550	-29.5	124	0.00
8	T	Bromomethane	1.174	1.285	-9.5	128	0.01
9	T	Chloroethane	0.734	0.819	-11.6	127	0.01
10	T	Trichlorofluoromethane	2.926	3.399	-16.2	135	0.00
11	T	Ethanol	0.344	0.391	-13.7	124	-0.01
12	T	Freon113	2.350	2.744	-16.8	129	0.00
13	T	1,1-Dichloroethene	1.965	2.254	-14.7	125	0.00
14	T	Acetone	1.995	2.210	-10.8	121	0.00
15	T	Carbon disulfide	3.197	3.541	-10.8	125	0.00
16	T	2-Propanol	1.800	1.981	-10.1	123	0.00
17	T	Methylene chloride	1.562	1.696	-8.6	120	0.00
18	T	tert-Butyl Methyl Ether	2.572	2.917	-13.4	125	0.00
19	T	trans-1,2-Dichloroethene	1.880	2.134	-13.5	125	0.00
20	T	n-Hexane	2.078	2.320	-11.6	122	0.00
21	T	1,1-Dichloroethane	2.078	2.383	-14.7	125	0.00
22	T	Vinyl acetate	2.954	3.560	-20.5	118	0.00
23	T	cis-1,2-Dichloroethene	1.127	1.236	-9.7	125	0.00
24	T	2-Butanone	2.143	2.226	-3.9	114	0.00
25	T	Ethyl acetate	2.711	2.965	-9.4	116	0.00
26	T	Tetrahydrofuran	1.342	1.474	-9.8	118	0.00
27	T	Chloroform	2.415	2.808	-16.3	126	0.00
28	T	1,1,1-Trichloroethane	2.311	2.757	-19.3	128	0.00
29	T	Cyclohexane	2.138	2.511	-17.4	121	0.00
30	T	Carbon tetrachloride	2.018	2.408	-19.3	135	0.00
31	T	Benzene	2.830	3.138	-10.9	122	0.00
32	T	1,2-Dichloroethane	1.417	1.656	-16.9	125	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	130	0.00
34	T	Heptane	0.884	1.012	-14.5	123	0.00
35	T	Trichloroethene	0.438	0.478	-9.1	132	0.00
36	T	1,2-Dichloropropane	0.363	0.392	-8.0	122	0.00
37	T	1,4-Dioxane	0.125	0.130	-4.0	124	0.00
38	T	Bromodichloromethane	0.649	0.725	-11.7	130	0.00
39	T	cis-1,3-Dichloropropene	0.530	0.576	-8.7	126	0.00
40	T	4-Methyl-2-pentanone	0.242	0.256	-5.8	123	0.00
41	T	Toluene	0.932	0.998	-7.1	125	0.00
42	T	trans-1,3-Dichloropropene	0.457	0.502	-9.8	128	0.00
43	T	1,1,2-Trichloroethane	0.316	0.333	-5.4	126	0.00
44	T	Tetrachloroethene	0.481	0.527	-9.6	134	0.00
45	T	2-Hexanone	0.518	0.543	-4.8	122	0.00
46	T	Chlorodibromomethane	0.479	0.527	-10.0	134	0.00
47	T	1,2-Dibromoethane	0.455	0.486	-6.8	128	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101711\10171102.D Vial: 2
Acq On : 17 Oct 2011 12:15 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101711 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.928	0.992	-6.9	128	0.00
50	T	Ethylbenzene	1.589	1.716	-8.0	128	0.00
51	T	m,p-Xylene	1.301	1.489	-14.5	130	0.00
52	T	o-Xylene	1.164	1.235	-6.1	128	0.00
53	T	Styrene	0.796	0.829	-4.1	126	0.00
54	T	Bromoform	0.579	0.635	-9.7	132	0.00
55	S	4-Bromofluorobenzene	0.565	0.582	-3.0	131	0.00
56	T	1,1,2,2-Tetrachloroethane	0.858	0.869	-1.3	119	0.00
57	T	4-Ethyltoluene	1.357	1.352	0.4	124	0.00
58	T	1,3,5-Trimethylbenzene	1.163	1.130	2.8	122	0.00
59	T	1,2,4-Trimethylbenzene	1.086	1.040	4.2	119	0.00
60	T	1,3-Dichlorobenzene	0.649	0.644	0.8	121	0.00
61	T	1,4-Dichlorobenzene	0.599	0.607	-1.3	123	0.00
62	T	Benzyl chloride	0.722	0.833	-15.4	127	0.00
63	T	1,2-Dichlorobenzene	0.595	0.574	3.5	117	0.00
64	T	1,2,4-Trichlorobenzene	0.087	0.095	-9.2	130	0.00
65	T	Hexachlorobutadiene	0.203	0.249	-22.7	141	0.00
66		Naphthalene	0.134	0.149	-11.2	135	0.00

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101711\10171102.D Vial: 2
Acq On : 17 Oct 2011 12:15 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101711 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 18 7:13 2011 Quant Results File: 101411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration
DataAcq Meth : 101411V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	544065	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1705032	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1030999	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	599933	12.87 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 102.96%

Target Compounds					Qvalue
2) Propylene	5.52	41	597806	10.55 ppbv	97
3) Dichlorodifluoromethane	5.59	85	1411550	9.68 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	973548	10.22 ppbv #	72
5) Chloromethane	6.00	50	616092	9.58 ppbv	99
6) Vinyl chloride	6.21	62	634017	10.98 ppbv #	99
7) 1,3-Butadiene	6.26	39	661027	12.69 ppbv	92
8) Bromomethane	6.85	94	520338	10.18 ppbv #	98
9) Chloroethane	7.00	64	328131	10.27 ppbv	95
10) Trichlorofluoromethane	7.34	101	1420401	11.15 ppbv #	98
11) Ethanol	7.56	45	156605	10.47 ppbv	99
12) Freon113	7.99	101	1170329	11.44 ppbv	89
13) 1,1-Dichloroethene	8.09	61	971451	11.36 ppbv #	87
14) Acetone	8.19	43	961893	11.08 ppbv	92
15) Carbon disulfide	8.47	76	1494985	10.74 ppbv #	100
16) 2-Propanol	8.23	45	871010	11.12 ppbv	87
17) Methylene chloride	8.75	49	738368	10.86 ppbv #	77
18) tert-Butyl Methyl Ether	8.95	73	1257145	11.23 ppbv #	88
19) trans-1,2-Dichloroethene	9.04	61	910144	11.12 ppbv #	82
20) n-Hexane	9.22	57	1020050	11.28 ppbv #	87
21) 1,1-Dichloroethane	9.60	63	1006271	11.13 ppbv #	97
22) Vinyl acetate	9.53	43	1534030	11.93 ppbv #	95
23) cis-1,2-Dichloroethene	10.28	96	527093	10.74 ppbv #	80
24) 2-Butanone	10.25	43	959262	10.28 ppbv #	89
25) Ethyl acetate	10.20	43	1264737	10.72 ppbv #	99
26) Tetrahydrofuran	10.58	42	641592	10.99 ppbv	88
27) Chloroform	10.60	83	1197734	11.39 ppbv	100
28) 1,1,1-Trichloroethane	10.86	97	1152162	11.45 ppbv	95
29) Cyclohexane	10.86	56	1071151	11.51 ppbv	87
30) Carbon tetrachloride	11.02	117	995492	11.33 ppbv	98
31) Benzene	11.29	78	1311023	10.65 ppbv	94
32) 1,2-Dichloroethane	11.37	62	699309	11.34 ppbv #	97
34) Heptane	11.35	43	1367208	11.34 ppbv #	87
35) Trichloroethene	12.03	130	626053	10.49 ppbv	92
36) 1,2-Dichloropropane	12.38	63	524449	10.58 ppbv	97
37) 1,4-Dioxane	12.46	88	170568	9.99 ppbv #	79
38) Bromodichloromethane	12.67	83	948774	10.71 ppbv	99
39) cis-1,3-Dichloropropene	13.22	75	745894	10.31 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	349237	10.58 ppbv #	91
41) Toluene	13.63	91	1333919	10.49 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	623546	10.01 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	445255	10.31 ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101711\10171102.D Vial: 2
Acq On : 17 Oct 2011 12:15 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101711 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 18 7:13 2011 Quant Results File: 101411V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration
DataAcq Meth : 101411V1

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Tetrachloroethene	14.33	166	690523	10.52 ppbv		98
45)	2-Hexanone	14.41	43	725466	10.27 ppbv		92
46)	Chlorodibromomethane	14.75	129	704970	10.79 ppbv		99
47)	1,2-Dibromoethane	14.99	107	636586	10.26 ppbv		100
49)	Chlorobenzene	15.58	112	809948	10.58 ppbv	#	85
50)	Ethylbenzene	15.63	91	1386968	10.58 ppbv		90
51)	m,p-Xylene	15.78	91	2358523	21.98 ppbv		90
52)	o-Xylene	16.37	91	1018978	10.61 ppbv	#	87
53)	Styrene	16.39	104	669734	10.20 ppbv		96
54)	Bromoform	16.78	173	503136	10.53 ppbv	#	97
56)	1,1,2,2-Tetrachloroethane	17.36	83	717046	10.14 ppbv	#	99
57)	4-Ethyltoluene	17.60	105	1092709	9.76 ppbv		95
58)	1,3,5-Trimethylbenzene	17.68	105	904031	9.43 ppbv		95
59)	1,2,4-Trimethylbenzene	18.27	105	840609	9.38 ppbv		96
60)	1,3-Dichlorobenzene	18.82	146	515516	9.62 ppbv	#	96
61)	1,4-Dichlorobenzene	18.96	146	480393	9.73 ppbv	#	96
62)	Benzyl chloride	19.17	91	666536	11.19 ppbv		96
63)	1,2-Dichlorobenzene	19.61	146	459562	9.36 ppbv	#	97
64)	1,2,4-Trichlorobenzene	22.76	180	71389	9.89 ppbv		98
65)	Hexachlorobutadiene	22.96	225	192986	11.50 ppbv		99
66)	Naphthalene	23.45	128	113021	10.22 ppbv		99

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

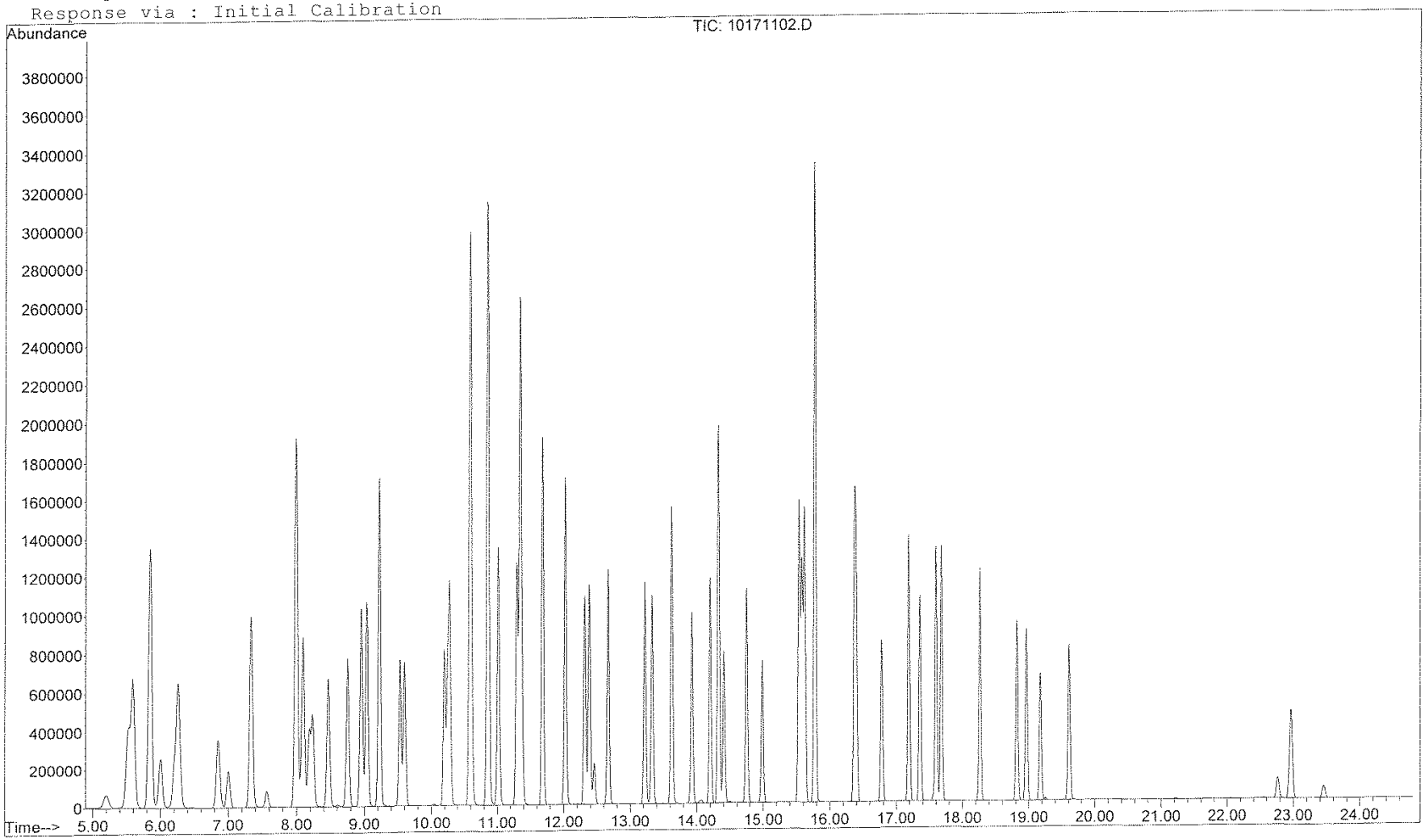
Quantitation Report

Data File : C:\HPCHEM\1\DATA\101711\10171102.D
Acq On : 17 Oct 2011 12:15 pm
Sample : CCV1 VOA1 101711
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 18 7:13 2011

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

Quant Results File: 101411V1.RES

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration



RTI Laboratories

Run ID: VOA1_111019A **Run No.:** 43554

Analytical Run Date: 10/19/2011 **InstrumentID:** VOA1

Analyst: Rachel Hill **Column:**

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

Column Length: 30m

Run Comments: ch rev 10/21/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 VOA1 101811	BFB_TUNE	TUNE	R43554	10/18/2011 10:51:00 AM	Celeste Hoitash		
1ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 3:04:00 PM	Celeste Hoitash		
10ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 3:45:00 PM	Celeste Hoitash		
12ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 4:27:00 PM	Celeste Hoitash		
15ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 5:08:00 PM	Celeste Hoitash		
20ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 5:50:00 PM	Celeste Hoitash		
30ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 6:33:00 PM	Celeste Hoitash		
50ppbv ICAL	EPA_TO15	ICAL	R43554	10/18/2011 7:17:00 PM	Celeste Hoitash		
BFB2 VOA1 101811	BFB_TUNE	TUNE	R43554	10/18/2011 7:57:00 PM	Celeste Hoitash		
CCV1 VOA1 101811	EPA_TO15	CCV	R43554	10/18/2011 11:09:00 PM	Celeste Hoitash		
RLVS1 VOA1 10181	EPA_TO15	RLVS	R43554	10/18/2011 11:50:00 PM	Celeste Hoitash		
BLK VOA1 101811	EPA_TO15	MBLK	R43554	10/19/2011 12:38:00 AM	Celeste Hoitash		
1110376-002A	EPA_TO15	SAMP	R43554	10/19/2011 4:14:00 AM	Celeste Hoitash		
1110067-016B	EPA_TO15	SAMP	R43554	10/19/2011 5:37:00 AM	Celeste Hoitash		
1110067-017B	EPA_TO15	SAMP	R43554	10/19/2011 6:18:00 AM	Celeste Hoitash		
1110067-018B	EPA_TO15	SAMP	R43554	10/19/2011 7:00:00 AM	Celeste Hoitash		
1110067-019B	EPA_TO15	SAMP	R43554	10/19/2011 7:41:00 AM	Celeste Hoitash		
1110067-019BDUP	EPA_TO15	SAMP	R43554	10/19/2011 8:23:00 AM	Celeste Hoitash		
1110067-020B	EPA_TO15	SAMP	R43554	10/19/2011 9:05:00 AM	Celeste Hoitash		
1110067-024B	EPA_TO15	SAMP	R43554	10/19/2011 9:46:00 AM	Celeste Hoitash		
1110367-003B	EPA_TO15	SAMP	R43554	10/19/2011 10:28:00 AM	Celeste Hoitash		
1110367-015B	EPA_TO15	SAMP	R43554	10/19/2011 11:10:00 AM	Celeste Hoitash		
1110367-016A	EPA_TO15	SAMP	R43554	10/19/2011 11:53:00 AM	Celeste Hoitash		
1110367-020B	EPA_TO15	SAMP	R43554	10/19/2011 12:35:00 PM	Celeste Hoitash		
1110367-021B	EPA_TO15	SAMP	R43554	10/19/2011 1:24:00 PM	Celeste Hoitash		
1110367-022B	EPA_TO15	SAMP	R43554	10/19/2011 2:12:00 PM	Celeste Hoitash		
1110367-023B	EPA_TO15	SAMP	R43554	10/19/2011 2:54:00 PM	Celeste Hoitash		
1110367-017B	EPA_TO15	SAMP	R43554	10/19/2011 3:36:00 PM	Celeste Hoitash		
1110376-001A	EPA_TO15	SAMP	R43554	10/19/2011 5:02:00 PM	Celeste Hoitash		
1110376-003A	EPA_TO15	SAMP	R43554	10/19/2011 5:46:00 PM	Celeste Hoitash		
RLVS2 VOA1 10181	EPA_TO15	RLVS	R43554	10/19/2011 6:30:00 PM	Celeste Hoitash		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
851675	CCV1 VOA1 101811	EPA_TO15	CCV	\1\DATA\101811	10/18/2011 11:0	1	R43554		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	11.06	11.06		9.6	0	0	0.107	1	0	115%	70	130	0%	
1,1,2,2-Tetrachloroethane	A	ppbv	10.58	10.58		10	0	0	0.211	1	0	106%	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	9.94	9.94		9.8	0	0	0.2	1	0	101%	70	130	0%	
1,1-Dichloroethane	A	ppbv	10.66	10.66		9.7	0	0	0.111	1	0	110%	70	130	0%	
1,1-Dichloroethene	A	ppbv	10.89	10.89		9.9	0	0	0.097	1	0	110%	70	130	0%	
1,2,4-Trichlorobenzene	A	ppbv	10.61	10.61		9.1	0	0	0.271	1	0	117%	70	130	0%	
1,2,4-Trimethylbenzene	A	ppbv	9.82	9.82		9.8	0	0	0.245	1	0	100%	70	130	0%	
1,2-Dibromoethane	A	ppbv	9.89	9.89		9.6	0	0	0.186	1	0	103%	70	130	0%	
1,2-Dichlorobenzene	A	ppbv	10.34	10.34		9.7	0	0	0.208	1	0	107%	70	130	0%	
1,2-Dichloroethane	A	ppbv	10.9	10.9		9.7	0	0	0.196	1	0	112%	70	130	0%	
1,2-Dichloropropane	A	ppbv	10.1	10.1		9.8	0	0	0.224	1	0	103%	70	130	0%	
1,3,5-Trimethylbenzene	A	ppbv	9.66	9.66		9.7	0	0	0.24	1	0	100%	70	130	0%	
1,3-Butadiene	A	ppbv	12.17	12.17		9.8	0	0	0.152	1	0	124%	70	130	0%	
1,3-Dichlorobenzene	A	ppbv	10.11	10.11		9.7	0	0	0.202	1	0	104%	70	130	0%	
1,4-Dichlorobenzene	A	ppbv	10.13	10.13		9.6	0	0	0.194	1	0	106%	70	130	0%	
1,4-Dioxane	A	ppbv	9.97	9.97		9.6	0	0	0.128	1	0	104%	70	130	0%	
2-Butanone	A	ppbv	11.32	11.32		9.9	0	0	0.287	1	0	114%	70	130	0%	
2-Hexanone	A	ppbv	10.23	10.23		9.8	0	0	0.135	1	0	104%	70	130	0%	
2-Propanol	A	ppbv	11.15	11.15		10.1	0	0	0.329	1	0	110%	70	130	0%	
4-Methyl-2-pentanone	A	ppbv	10.17	10.17		10	0	0	0.157	1	0	102%	70	130	0%	
Acetone	A	ppbv	11.01	11.01		10	0	0	0.43	1	0	110%	70	130	0%	
Benzene	A	ppbv	10.55	10.55		9.6	0	0	0.126	1	0	110%	70	130	0%	
Benzyl chloride	A	ppbv	11.26	11.26		9.7	0	0	0.155	1	0	116%	70	130	0%	
Bromodichloromethane	A	ppbv	9.89	9.89		9.6	0	0	0.156	1	0	103%	70	130	0%	
Bromoform	A	ppbv	10.03	10.03		9.6	0	0	0.197	1	0	104%	70	130	0%	
Bromomethane	A	ppbv	10.06	10.06		9.3	0	0	0.075	1	0	108%	70	130	0%	
Carbon disulfide	A	ppbv	10.68	10.68		9.7	0	0	0.093	1	0	110%	70	130	0%	
Carbon tetrachloride	A	ppbv	10.56	10.56		9.5	0	0	0.114	1	0	111%	70	130	0%	
Chlorobenzene	A	ppbv	9.85	9.85		9.9	0	0	0.275	1	0	99%	70	130	0%	
Chlorodibromomethane	A	ppbv	9.98	9.98		9.2	0	0	0.165	1	0	108%	70	130	0%	
Chloroethane	A	ppbv	10.12	10.12		9.8	0	0	0.063	1	0	103%	70	130	0%	
Chloroform	A	ppbv	11.13	11.13		9.4	0	0	0.126	1	0	118%	70	130	0%	
Chloromethane	A	ppbv	10.64	10.64		9.8	0	0	0.104	1	0	109%	70	130	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
851675	CCV1 VOA1 101811	EPA_TO15	CCV	.\1\DATA\101811	10/18/2011 11:0	1	R43554		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	10.55	10.55		9.8	0	0	0.107	1	0	108%	70	130	0%	
cis-1,3-dichloropropene	A	ppbv	9.85	9.85		9.5	0	0	0.166	1	0	104%	70	130	0%	
Cyclohexane	A	ppbv	11.46	11.46		9.8	0	0	0.684	2	0	117%	70	130	0%	
Dichlorodifluoromethane	A	ppbv	9.83	9.83		9.2	0	0	0.086	1	0	107%	70	130	0%	
Ethanol	A	ppbv	10.64	10.64		9.2	0	0	1.962	5	0	116%	70	130	0%	
Ethyl acetate	A	ppbv	10.82	10.82		9.8	0	0	0.157	1	0	110%	70	130	0%	
Ethylbenzene	A	ppbv	9.88	9.88		9.8	0	0	0.737	2	0	101%	70	130	0%	
Heptane	A	ppbv	10.81	10.81		9.9	0	0	0.249	1	0	109%	70	130	0%	
Hexachlorobutadiene	A	ppbv	11.2	11.2		9.4	0	0	0.374	2	0	119%	70	130	0%	
m,p-Xylene	A	ppbv	20.47	20.47		19.2	0	0	0.524	2	0	107%	70	130	0%	
Methylene chloride	A	ppbv	10.76	10.76		10	0	0	2.077	5	0	108%	70	130	0%	
n-Hexane	A	ppbv	11.16	11.16		10.1	0	0	0.692	2	0	110%	70	130	0%	
Naphthalene	A	ppbv	11.19	11.19		9.2	0	0	0.247	1	0	122%	70	130	0%	
o-Xylene	A	ppbv	10.05	10.05		10	0	0	0.258	1	0	101%	70	130	0%	
Propylene	A	ppbv	11.18	11.18		10.2	0	0	0.075	1	0	110%	70	130	0%	
Styrene	A	ppbv	9.92	9.92		9.8	0	0	0.263	1	0	101%	70	130	0%	
tert-Butyl Methyl Ether	A	ppbv	10.94	10.94		9.9	0	0	0.228	1	0	111%	70	130	0%	
Tetrachloroethene	A	ppbv	9.85	9.85		9.6	0	0	0.148	1	0	103%	70	130	0%	
Tetrahydrofuran	A	ppbv	10.92	10.92		10	0	0	0.201	1	0	109%	70	130	0%	
Toluene	A	ppbv	10.04	10.04		9.8	0	0	0.158	1	0	102%	70	130	0%	
trans-1,2-Dichloroethene	A	ppbv	10.84	10.84		9.8	0	0	0.117	1	0	111%	70	130	0%	
trans-1,3-dichloropropene	A	ppbv	9.55	9.55		9.1	0	0	0.171	1	0	105%	70	130	0%	
Trichloroethene	A	ppbv	9.7	9.7		9.6	0	0	0.119	1	0	101%	70	130	0%	
Trichlorofluoromethane	A	ppbv	10.44	10.44		9.6	0	0	0.148	1	0	109%	70	130	0%	
Vinyl acetate	A	ppbv	11.89	11.89		9.9	0	0	0.266	1	0	120%	70	130	0%	
Vinyl chloride	A	ppbv	12	12		9.4	0	0	0.072	1	0	128%	70	130	0%	
Xylenes, Total	C	ppbv	30.52	30.52		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	13.29	13.29		12.5	0	0	0	0	0	106%	70	130	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101811\10181113.D Vial: 3
Acq On : 18 Oct 2011 11:09 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101811 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 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	107	0.00
2	T	Propylene	1.280	1.402	-9.5	105	0.00
3	T	Dichlorodifluoromethane	3.341	3.570	-6.9	106	0.00
4	T	1,2-Dichloro-1,2,2,2-tetraf	2.202	2.340	-6.3	104	0.00
5	T	Chloromethane	1.418	1.589	-12.1	102	0.00
6	T	Vinyl chloride	1.360	1.736	-27.6	107	0.01
7	T	1,3-Butadiene	1.250	1.552	-24.2	103	0.00
8	T	Bromomethane	1.200	1.297	-8.1	105	0.01
9	T	Chloroethane	0.754	0.830	-10.1	104	0.01
10	T	Trichlorofluoromethane	3.019	3.283	-8.7	105	0.00
11	T	Ethanol	0.319	0.368	-15.4	112	0.00
12	T	Freon113	2.393	2.629	-9.9	105	0.00
13	T	1,1-Dichloroethene	2.006	2.207	-10.0	102	0.00
14	T	Acetone	1.797	1.978	-10.1	119	0.00
15	T	Carbon disulfide	3.276	3.608	-10.1	104	0.00
16	T	2-Propanol	1.667	1.840	-10.4	113	0.00
17	T	Methylene chloride	1.535	1.652	-7.6	105	0.00
18	T	tert-Butyl Methyl Ether	2.290	2.530	-10.5	126	0.00
19	T	trans-1,2-Dichloroethene	1.845	2.041	-10.6	109	0.00
20	T	n-Hexane	2.000	2.210	-10.5	110	0.00
21	T	1,1-Dichloroethane	2.023	2.223	-9.9	113	0.00
22	T	Vinyl acetate	2.629	3.158	-20.1	120	0.00
23	T	cis-1,2-Dichloroethene	1.088	1.171	-7.6	112	0.00
24	T	2-Butanone	1.862	2.129	-14.3	122	0.00
25	T	Ethyl acetate	2.418	2.668	-10.3	114	0.00
26	T	Tetrahydrofuran	1.228	1.342	-9.3	115	0.00
27	T	Chloroform	2.313	2.626	-13.5	112	0.00
28	T	1,1,1-Trichloroethane	2.195	2.528	-15.2	115	0.00
29	T	Cyclohexane	2.027	2.370	-16.9	111	0.00
30	T	Carbon tetrachloride	1.947	2.164	-11.1	115	0.00
31	T	Benzene	2.609	2.866	-9.9	118	0.00
32	T	1,2-Dichloroethane	1.308	1.471	-12.5	118	0.00
33	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
34	T	Heptane	0.859	0.938	-9.2	114	0.00
35	T	Trichloroethene	0.450	0.455	-1.1	113	0.00
36	T	1,2-Dichloropropane	0.350	0.361	-3.1	117	0.00
37	T	1,4-Dioxane	0.123	0.128	-4.1	121	0.00
38	T	Bromodichloromethane	0.649	0.668	-2.9	118	0.00
39	T	cis-1,3-Dichloropropene	0.530	0.550	-3.8	120	0.00
40	T	4-Methyl-2-pentanone	0.236	0.240	-1.7	118	0.00
41	T	Toluene	0.915	0.937	-2.4	118	0.00
42	T	trans-1,3-Dichloropropene	0.456	0.478	-4.8	121	0.00
43	T	1,1,2-Trichloroethane	0.319	0.323	-1.3	119	0.00
44	T	Tetrachloroethene	0.492	0.505	-2.6	115	0.00
45	T	2-Hexanone	0.514	0.537	-4.5	123	0.00
46	T	Chlorodibromomethane	0.496	0.505	-1.8	121	0.00
47	T	1,2-Dibromoethane	0.465	0.479	-3.0	122	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\101811\10181113.D Vial: 3
Acq On : 18 Oct 2011 11:09 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101811 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P

Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 2011
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	Chlorobenzene	0.904	0.899	0.6	120	0.00
50	T	Ethylbenzene	1.522	1.535	-0.9	121	0.00
51	T	m,p-Xylene	1.240	1.323	-6.7	124	0.00
52	T	o-Xylene	1.128	1.134	-0.5	124	0.00
53	T	Styrene	0.789	0.799	-1.3	125	0.00
54	T	Bromoform	0.579	0.605	-4.5	128	0.00
55	S	4-Bromofluorobenzene	0.588	0.625	-6.3	119	0.00
56	T	1,1,2,2-Tetrachloroethane	0.830	0.878	-5.8	126	0.00
57	T	4-Ethyltoluene	1.374	1.370	0.3	128	0.00
58	T	1,3,5-Trimethylbenzene	1.177	1.172	0.4	129	0.00
59	T	1,2,4-Trimethylbenzene	1.086	1.088	-0.2	129	0.00
60	T	1,3-Dichlorobenzene	0.600	0.625	-4.2	132	0.00
61	T	1,4-Dichlorobenzene	0.541	0.570	-5.4	132	0.00
62	T	Benzyl chloride	0.638	0.741	-16.1	137	0.00
63	T	1,2-Dichlorobenzene	0.530	0.565	-6.6	134	0.00
64	T	1,2,4-Trichlorobenzene	0.067	0.078	-16.4	161#	0.00
65	T	Hexachlorobutadiene	0.169	0.201	-18.9	144	0.00
66		Naphthalene	0.104	0.127	-22.1	163#	0.00

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101811\10181113.D Vial: 3
Acq On : 18 Oct 2011 11:09 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101811 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 19 11:43 2011 Quant Results File: 101811V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 2011
Response via : Initial Calibration
DataAcq Meth : 101811V1

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane	10.59	130	500200	12.50 ppbv	0.00
33) 1,4-Difluorobenzene	11.69	114	1548585	12.50 ppbv	0.00
48) Chlorobenzene-d5	15.54	117	1042517	12.50 ppbv	0.00

System Monitoring Compounds

55) 4-Bromofluorobenzene	17.19	95	651430	13.29 ppbv	0.00

Spiked Amount 12.500 Range 70 - 113 Recovery = 106.32%

Target Compounds					Qvalue
2) Propylene	5.52	41	572232	11.18 ppbv	98
3) Dichlorodifluoromethane	5.59	85	1314195	9.83 ppbv	99
4) 1,2-Dichloro-1,2,2,2-tetra	5.85	135	889602	10.09 ppbv #	69
5) Chloromethane	6.00	50	603921	10.64 ppbv	99
6) Vinyl chloride	6.21	62	652946	12.00 ppbv #	99
7) 1,3-Butadiene	6.26	39	608697	12.17 ppbv	91
8) Bromomethane	6.85	94	482730	10.06 ppbv #	98
9) Chloroethane	7.00	64	305564	10.12 ppbv	96
10) Trichlorofluoromethane	7.33	101	1261065	10.44 ppbv #	98
11) Ethanol	7.57	45	135660	10.64 ppbv	99
12) Freon113	8.00	101	1031005	10.77 ppbv	87
13) 1,1-Dichloroethene	8.10	61	874315	10.89 ppbv #	87
14) Acetone	8.18	43	791322	11.01 ppbv	92
15) Carbon disulfide	8.46	76	1400533	10.68 ppbv #	100
16) 2-Propanol	8.23	45	743661	11.15 ppbv	83
17) Methylene chloride	8.75	49	661011	10.76 ppbv #	78
18) tert-Butyl Methyl Ether	8.95	73	1002323	10.94 ppbv #	88
19) trans-1,2-Dichloroethene	9.04	61	800303	10.84 ppbv #	82
20) n-Hexane	9.22	57	893152	11.16 ppbv	88
21) 1,1-Dichloroethane	9.60	63	862689	10.66 ppbv #	97
22) Vinyl acetate	9.53	43	1251184	11.89 ppbv #	95
23) cis-1,2-Dichloroethene	10.28	96	459220	10.55 ppbv #	81
24) 2-Butanone	10.24	43	843256	11.32 ppbv #	87
25) Ethyl acetate	10.20	43	1046467	10.82 ppbv #	100
26) Tetrahydrofuran	10.58	42	536926	10.92 ppbv	88
27) Chloroform	10.60	83	1029998	11.13 ppbv	100
28) 1,1,1-Trichloroethane	10.86	97	971146	11.06 ppbv #	94
29) Cyclohexane	10.86	56	929407	11.46 ppbv	86
30) Carbon tetrachloride	11.02	117	822698	10.56 ppbv	97
31) Benzene	11.30	78	1100943	10.55 ppbv	94
32) 1,2-Dichloroethane	11.37	62	570867	10.90 ppbv #	97
34) Heptane	11.35	43	1150314	10.81 ppbv #	87
35) Trichloroethene	12.03	130	541181	9.70 ppbv	92
36) 1,2-Dichloropropane	12.38	63	437781	10.10 ppbv	97
37) 1,4-Dioxane	12.46	88	152409	9.97 ppbv #	82
38) Bromodichloromethane	12.67	83	794934	9.89 ppbv	98
39) cis-1,3-Dichloropropene	13.22	75	647418	9.85 ppbv	96
40) 4-Methyl-2-pentanone	13.33	58	296844	10.17 ppbv #	91
41) Toluene	13.63	91	1138054	10.04 ppbv	97
42) trans-1,3-Dichloropropene	13.93	75	538797	9.55 ppbv	95
43) 1,1,2-Trichloroethane	14.20	97	392545	9.94 ppbv	96

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101811\10181113.D Vial: 3
Acq On : 18 Oct 2011 11:09 pm Operator: RACHEL HILL
Sample : CCV1 VOA1 101811 Inst : VOA 1
Misc : CCV EPA_TO15 Multiplr: 1.00
MS Integration Params: CLME.P
Quant Time: Oct 19 11:43 2011 Quant Results File: 101811V1.RES

Quant Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 2011
Response via : Initial Calibration
DataAcq Meth : 101811V1

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Tetrachloroethene	14.33	166	600042	9.85	ppbv		98
45)	2-Hexanone	14.41	43	651803	10.23	ppbv		93
46)	Chlorodibromomethane	14.75	129	612628	9.98	ppbv		99
47)	1,2-Dibromoethane	14.99	107	569494	9.89	ppbv		100
49)	Chlorobenzene	15.58	112	742422	9.85	ppbv	#	85
50)	Ethylbenzene	15.63	91	1254563	9.88	ppbv		90
51)	m,p-Xylene	15.78	91	2117836	20.47	ppbv		90
52)	o-Xylene	16.37	91	945455	10.05	ppbv	#	87
53)	Styrene	16.40	104	653125	9.92	ppbv		96
54)	Bromoform	16.78	173	484373	10.03	ppbv	#	97
56)	1,1,2,2-Tetrachloroethane	17.36	83	732529	10.58	ppbv	#	99
57)	4-Ethyltoluene	17.60	105	1119910	9.78	ppbv		95
58)	1,3,5-Trimethylbenzene	17.68	105	948050	9.66	ppbv		95
59)	1,2,4-Trimethylbenzene	18.27	105	889491	9.82	ppbv		96
60)	1,3-Dichlorobenzene	18.82	146	505910	10.11	ppbv	#	97
61)	1,4-Dichlorobenzene	18.96	146	456693	10.13	ppbv	#	96
62)	Benzyl chloride	19.17	91	599736	11.26	ppbv		96
63)	1,2-Dichlorobenzene	19.61	146	457411	10.34	ppbv	#	97
64)	1,2,4-Trichlorobenzene	22.77	180	59077	10.61	ppbv		99
65)	Hexachlorobutadiene	22.97	225	157932	11.20	ppbv		99
66)	Naphthalene	23.45	128	97155	11.19	ppbv		99

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

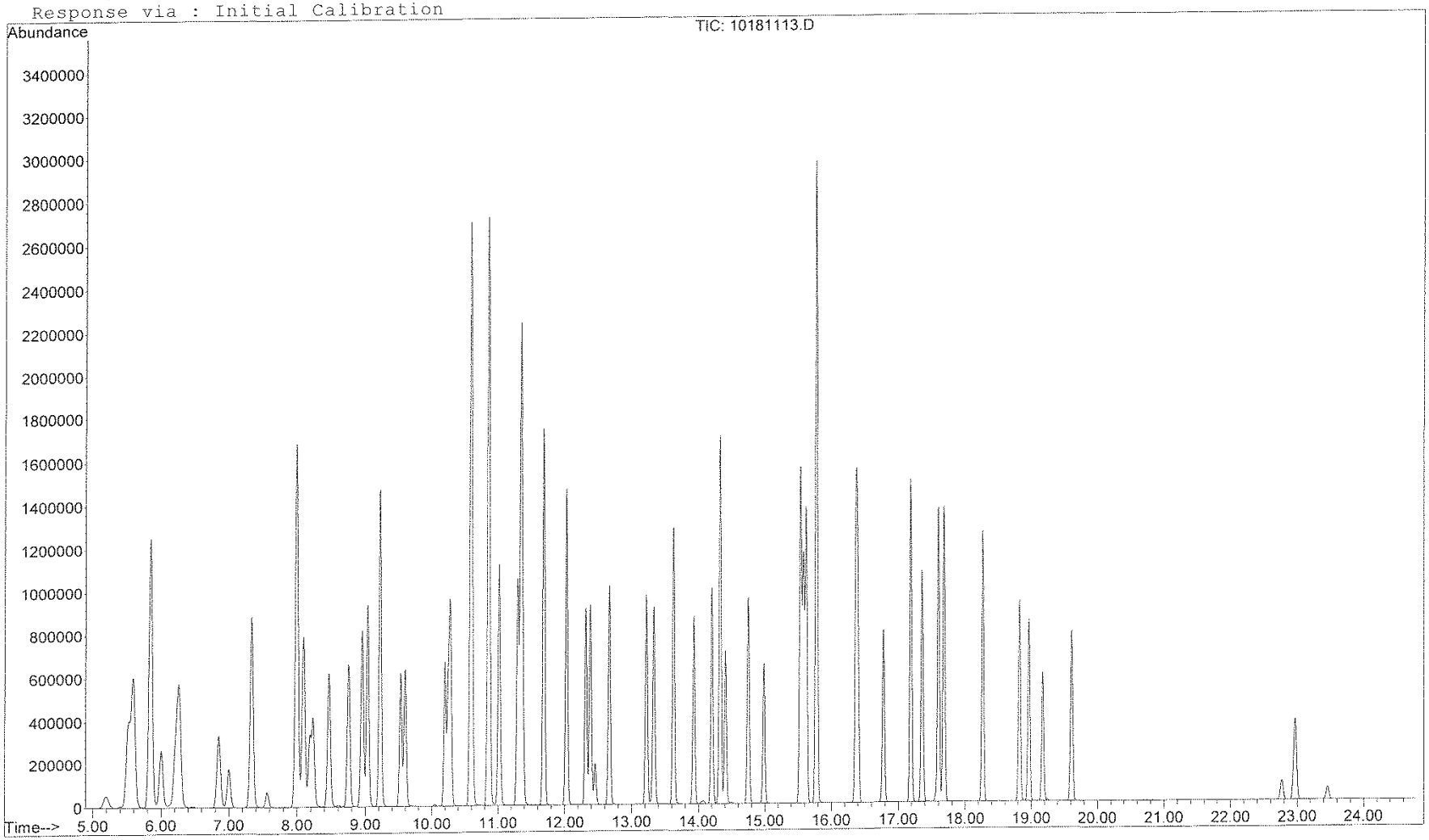
Quantitation Report

Data File : C:\HPCHEM\1\DATA\101811\10181113.D
Acq On : 18 Oct 2011 11:09 pm
Sample : CCV1 VOA1 101811
Misc : CCV EPA_TO15
MS Integration Params: CLME.P
Quant Time: Oct 19 11:43 2011

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

Quant Results File: 101811V1.RES

Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 2011
Response via : Initial Calibration



Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration

Calibration Files
2 =10101105.D 4 =10101106.D 5 =10101107.D
6 =10101108.D 7 =10101112.D 8 =10101113.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.465	1.525	1.400	1.277	1.184	1.115	1.309	11.94
3)	T	Dichlorodifluoromet	3.495	3.620	3.390	3.146	3.030	2.975	3.291	7.41
4)	T	1,2-Dichloro-1,2,2,	1.995	2.408	2.255	2.120	2.114	2.153	2.188	6.16
5)	T	Chloromethane	1.872	1.923	1.748	1.566	1.358	1.199	1.550	19.99
6)	T	Vinyl chloride	1.644	1.739	1.559	1.395	1.181	1.037	1.365	21.75
7)	T	1,3-Butadiene	1.582	1.481	1.384	1.191	0.977	0.852	1.184	26.06
8)	T	Bromomethane	1.181	1.335	1.241	1.160	1.054	1.019	1.168	9.18
9)	T	Chloroethane	0.755	0.877	0.813	0.744	0.656	0.618	0.736	12.27
10)	T	Trichlorofluorometh	2.805	3.322	3.155	2.942	2.672	2.686	2.930	8.20
11)	T	Ethanol		0.476	0.415	0.363	0.299	0.300	0.361	19.87
12)	T	Freon113	2.180	2.899	2.768	2.557	2.257	2.221	2.418	13.46
13)	T	1,1-Dichloroethene	2.076	2.415	2.235	2.020	1.728	1.685	1.995	13.62
14)	T	Acetone	2.638	2.579	2.359	1.990	1.626	1.568	2.049	23.22
15)	T	Carbon disulfide	3.384	3.811	3.522	3.226	2.795	2.691	3.202	12.62
16)	T	2-Propanol	1.974	2.300	2.092	1.814	1.602	1.546	1.848	15.44
17)	T	Methylene chloride	2.111	1.953	1.800	1.572	1.317	1.264	1.619	21.05
18)	T	tert-Butyl Methyl E	2.896	3.212	3.044	2.607	2.184	2.223	2.651	15.39
19)	T	trans-1,2-Dichloroe	1.978	2.328	2.167	1.930	1.667	1.673	1.925	13.25
20)	T	n-Hexane	2.214	2.609	2.452	2.154	1.871	1.855	2.142	14.31
21)	T	1,1-Dichloroethane	2.207	2.599	2.440	2.097	1.790	1.787	2.117	15.06
22)	T	Vinyl acetate	2.561	4.213	3.924	3.287	2.686	2.610	3.132	22.01
23)	T	cis-1,2-Dichloroeth	1.101	1.344	1.251	1.116	0.999	1.048	1.143	10.38
24)	T	2-Butanone	2.559	2.784	2.495	2.069	1.860	1.787	2.190	18.99
25)	T	Ethyl acetate	2.996	3.610	3.185	2.751	2.320	2.291	2.785	18.20
26)	T	Tetrahydrofuran	1.733	1.812	1.679	1.441	1.174	1.084	1.417	23.64
27)	T	Chloroform	2.401	3.060	2.913	2.627	2.303	2.139	2.487	16.09
28)	T	1,1,1-Trichloroetha	1.991	2.911	2.841	2.604	2.294	2.088	2.371	17.66
29)	T	Cyclohexane	2.191	2.870	2.702	2.395	2.009	1.773	2.213	21.63
30)	T	Carbon tetrachlorid	1.854	2.386	2.297	2.080	1.916	1.971	2.060	10.01
31)	T	Benzene	3.104	3.525	3.329	2.851	2.425	2.451	2.902	14.89
32)	T	1,2-Dichloroethane	1.461	1.823	1.758	1.514	1.297	1.250	1.467	17.15
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.795	1.184	1.152	1.048	0.951	0.893	0.966	17.74
35)	T	Trichloroethene	0.379	0.515	0.509	0.478	0.465	0.511	0.475	9.98
36)	T	1,2-Dichloropropane	0.327	0.460	0.445	0.398	0.358	0.383	0.394	11.78
37)	T	1,4-Dioxane	0.146	0.154	0.144	0.130	0.112	0.118	0.132	12.57
38)	T	Bromodichloromethan	0.518	0.793	0.787	0.715	0.676	0.742	0.705	13.17
39)	T	cis-1,3-Dichloropro	0.439	0.655	0.645	0.578	0.530	0.583	0.575	12.75
40)	T	4-Methyl-2-pentanon	0.222	0.302	0.288	0.263	0.240	0.257	0.262	10.40
41)	T	Toluene	0.892	1.141	1.120	1.011	0.924	1.011	1.014	9.05
42)	T	trans-1,3-Dichlorop	0.361	0.566	0.553	0.501	0.460	0.508	0.495	13.87
43)	T	1,1,2-Trichloroetha	0.278	0.378	0.367	0.335	0.312	0.352	0.340	10.33
44)	T	Tetrachloroethene	0.445	0.569	0.565	0.524	0.525	0.549	0.522	8.83
45)	T	2-Hexanone	0.550	0.670	0.631	0.562	0.497	0.517	0.561	11.90
46)	T	Chlorodibromomethan	0.388	0.574	0.566	0.529	0.509	0.587	0.529	12.79
47)	T	1,2-Dibromoethane	0.403	0.541	0.534	0.487	0.452	0.519	0.492	10.03
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.915	1.090	1.068	0.986	0.923	1.000	1.004	6.81

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 2011
Response via : Initial Calibration

Calibration Files
2 =10101105.D 4 =10101106.D 5 =10101107.D
6 =10101108.D 7 =10101112.D 8 =10101113.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.608	1.888	1.838	1.702	1.607	1.710	1.718	6.27
51)	T	m,p-Xylene	1.263	1.651	1.649	1.533	1.440	1.348	1.425	14.49
52)	T	o-Xylene	1.201	1.363	1.337	1.240	1.187	1.291	1.264	5.36
53)	T	Styrene	0.814	0.925	0.915	0.848	0.796	0.874	0.862	5.57
54)	T	Bromoform	0.546	0.691	0.691	0.633	0.600	0.667	0.637	8.19
55)	S	4-Bromofluorobenzen	0.590	0.556	0.562	0.552	0.535	0.515	0.545	5.41
56)	T	1,1,2,2-Tetrachloro	1.036	0.970	0.956	0.863	0.784	0.789	0.884	11.63
57)	T	4-Ethyltoluene	1.816	1.508	1.469	1.338	1.238	1.288	1.424	13.96
58)	T	1,3,5-Trimethylbenz	1.565	1.261	1.236	1.121	1.053	1.102	1.208	14.44
59)	T	1,2,4-Trimethylbenz	1.527	1.141	1.128	1.030	0.938	0.965	1.105	18.20
60)	T	1,3-Dichlorobenzene	0.962	0.712	0.707	0.628	0.548	0.535	0.661	23.23
61)	T	1,4-Dichlorobenzene	0.850	0.675	0.662	0.592	0.515	0.500	0.614	20.78
62)	T	Benzyl chloride	0.611	0.899	0.910	0.798	0.702	0.683	0.754	15.49
63)	T	1,2-Dichlorobenzene	0.915	0.647	0.646	0.562	0.480	0.463	0.594	27.71
64)	T	1,2,4-Trichlorobenz		0.110	0.114	0.094	0.076	0.083	0.091	20.56
65)	T	Hexachlorobutadiene		0.261	0.254	0.217	0.178	0.182	0.206	22.13
66)		Naphthalene		0.169	0.175	0.142	0.116	0.124	0.137	21.82

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\101011V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 11 12:39:37 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	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.646	A	3	A	B
9	T	Chloroethane	64	6.99	0.660	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	0.754	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.24	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	0.846	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	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	10.61	1.002	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34	T	Heptane	43	11.34	0.971	A	3	A	B
35	T	Trichloroethene	130	12.02	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	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	1.141	A	3	A	B
41	T	Toluene	91	13.62	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	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	14.98	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	17.35	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	18.96	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	23.45	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

101011V1.M Thu Oct 20 10:39:41 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration

Calibration Files
2 =10121104.D 4 =10121105.D 5 =10121106.D
6 =10121107.D 7 =10121108.D 8 =10121109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.523	1.497	1.408	1.293	1.199	1.124	1.322	11.77
3)	T	Dichlorodifluoromet	3.855	3.686	3.527	3.293	3.104	3.026	3.419	8.80
4)	T	1,2-Dichloro-1,2,2,	2.084	2.414	2.317	2.188	2.158	2.183	2.236	5.09
5)	T	Chloromethane	1.875	1.819	1.695	1.516	1.376	1.207	1.526	18.30
6)	T	Vinyl chloride	1.661	1.689	1.542	1.351	1.200	1.043	1.358	20.75
7)	T	1,3-Butadiene	1.579	1.616	1.436	1.176	0.987	0.860	1.213	27.45
8)	T	Bromomethane	1.225	1.331	1.262	1.150	1.074	1.039	1.184	8.72
9)	T	Chloroethane	0.781	0.862	0.824	0.726	0.669	0.627	0.740	11.53
10)	T	Trichlorofluorometh	2.949	3.319	3.222	2.888	2.711	2.734	2.967	7.73
11)	T	Ethanol		0.431	0.410	0.352	0.323	0.309	0.358	14.22
12)	T	Freon113	2.255	2.868	2.734	2.420	2.314	2.245	2.415	11.85
13)	T	1,1-Dichloroethene	2.182	2.357	2.211	1.919	1.771	1.713	1.995	12.63
14)	T	Acetone	2.756	2.526	2.321	1.903	1.695	1.599	2.058	22.98
15)	T	Carbon disulfide	3.523	3.735	3.548	3.104	2.846	2.752	3.218	11.88
16)	T	2-Propanol	2.091	2.205	2.064	1.784	1.659	1.565	1.859	13.79
17)	T	Methylene chloride	2.016	1.893	1.751	1.484	1.351	1.284	1.589	18.58
18)	T	tert-Butyl Methyl E	3.082	3.280	3.037	2.486	2.280	2.269	2.698	15.61
19)	T	trans-1,2-Dichloroe	2.034	2.285	2.130	1.838	1.718	1.689	1.922	11.94
20)	T	n-Hexane	2.250	2.531	2.386	2.044	1.912	1.869	2.121	12.73
21)	T	1,1-Dichloroethane	2.279	2.557	2.399	1.982	1.824	1.807	2.113	14.06
22)	T	Vinyl acetate	2.468	4.192	3.852	3.101	2.805	2.681	3.116	21.01
23)	T	cis-1,2-Dichloroeth	1.162	1.318	1.236	1.083	1.036	1.063	1.153	8.78
24)	T	2-Butanone	2.497	2.697	2.391	2.013	1.898	1.847	2.155	17.15
25)	T	Ethyl acetate	2.901	3.534	3.152	2.576	2.497	2.308	2.755	16.73
26)	T	Tetrahydrofuran	1.750	1.729	1.603	1.331	1.210	1.097	1.390	21.85
27)	T	Chloroform	2.494	3.027	2.875	2.516	2.342	2.152	2.488	14.72
28)	T	1,1,1-Trichloroetha	2.087	2.888	2.832	2.494	2.357	2.122	2.386	15.70
29)	T	Cyclohexane	2.238	2.742	2.595	2.247	2.065	1.803	2.184	18.65
30)	T	Carbon tetrachlorid	1.911	2.386	2.277	2.019	1.966	1.992	2.076	8.68
31)	T	Benzene	3.113	3.492	3.268	2.710	2.522	2.492	2.902	13.42
32)	T	1,2-Dichloroethane	1.536	1.808	1.703	1.427	1.342	1.261	1.469	15.37
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.822	1.161	1.113	0.990	0.953	0.894	0.953	15.76
35)	T	Trichloroethene	0.382	0.513	0.502	0.459	0.468	0.508	0.472	9.57
36)	T	1,2-Dichloropropane	0.334	0.461	0.436	0.373	0.365	0.386	0.393	10.99
37)	T	1,4-Dioxane	0.153	0.147	0.142	0.122	0.119	0.120	0.132	11.12
38)	T	Bromodichloromethan	0.540	0.797	0.777	0.679	0.682	0.739	0.704	12.07
39)	T	cis-1,3-Dichloropro	0.448	0.654	0.623	0.546	0.539	0.581	0.572	11.95
40)	T	4-Methyl-2-pentanon	0.229	0.294	0.283	0.248	0.241	0.253	0.259	8.95
41)	T	Toluene	0.889	1.139	1.091	0.950	0.941	1.009	1.005	8.73
42)	T	trans-1,3-Dichlorop	0.382	0.563	0.539	0.477	0.466	0.509	0.496	12.38
43)	T	1,1,2-Trichloroetha	0.293	0.373	0.359	0.317	0.317	0.350	0.340	9.13
44)	T	Tetrachloroethene	0.457	0.557	0.550	0.498	0.525	0.544	0.517	7.16
45)	T	2-Hexanone	0.585	0.631	0.601	0.524	0.506	0.507	0.552	9.45
46)	T	Chlorodibromomethan	0.393	0.553	0.546	0.493	0.504	0.576	0.518	12.13
47)	T	1,2-Dibromoethane	0.417	0.531	0.514	0.463	0.457	0.513	0.489	8.86
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.945	1.089	1.059	0.940	0.935	1.010	1.005	6.47

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 2011
Response via : Initial Calibration

Calibration Files
2 =10121104.D 4 =10121105.D 5 =10121106.D
6 =10121107.D 7 =10121108.D 8 =10121109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.625	1.914	1.865	1.641	1.629	1.747	1.727	6.91
51)	T	m,p-Xylene	1.296	1.649	1.638	1.461	1.451	1.376	1.422	13.83
52)	T	o-Xylene	1.196	1.376	1.348	1.189	1.204	1.318	1.265	6.30
53)	T	Styrene	0.845	0.926	0.897	0.807	0.809	0.886	0.862	5.20
54)	T	Bromoform	0.548	0.671	0.668	0.608	0.602	0.668	0.630	7.32
55)	S	4-Bromofluorobenzen	0.643	0.563	0.556	0.550	0.538	0.517	0.554	8.01
56)	T	1,1,2,2-Tetrachloro	1.137	0.989	0.969	0.855	0.814	0.844	0.920	12.80
57)	T	4-Ethyltoluene	1.951	1.491	1.443	1.266	1.268	1.310	1.440	16.72
58)	T	1,3,5-Trimethylbenz	1.725	1.263	1.241	1.085	1.087	1.145	1.245	17.85
59)	T	1,2,4-Trimethylbenz	1.723	1.165	1.131	1.003	0.986	1.028	1.160	22.16
60)	T	1,3-Dichlorobenzene	1.043	0.711	0.691	0.611	0.575	0.582	0.689	23.95
61)	T	1,4-Dichlorobenzene	0.904	0.661	0.642	0.569	0.537	0.549	0.633	20.25
62)	T	Benzyl chloride	0.576	0.897	0.897	0.790	0.735	0.766	0.777	13.99
63)	T	1,2-Dichlorobenzene	1.000	0.647	0.637	0.566	0.518	0.527	0.634	26.67
64)	T	1,2,4-Trichlorobenz		0.099	0.095	0.083	0.082	0.091	0.089	7.66
65)	T	Hexachlorobutadiene		0.241	0.232	0.196	0.187	0.204	0.209	10.77
66)		Naphthalene		0.151	0.148	0.126	0.123	0.139	0.136	8.75

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\101211V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Thu Oct 13 09:38:24 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	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.646	A	3	A	B
9	T	Chloroethane	64	6.99	0.660	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	0.754	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.24	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	0.846	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	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	10.61	1.002	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34	T	Heptane	43	11.34	0.971	A	3	A	B
35	T	Trichloroethene	130	12.02	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	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	1.141	A	3	A	B
41	T	Toluene	91	13.62	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	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	14.98	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	17.35	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	18.96	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	23.45	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

101211V1.M Thu Oct 20 10:42:05 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration

Calibration Files
2 =10141103.D 4 =10141104.D 5 =10141105.D
6 =10141106.D 7 =10141107.D 8 =10141109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.520	1.462	1.369	1.302	1.183	1.103	1.302	12.07
3)	T	Dichlorodifluoromet	3.799	3.617	3.428	3.290	3.042	2.989	3.352	8.71
4)	T	1,2-Dichloro-1,2,2,	2.072	2.364	2.252	2.205	2.095	2.138	2.188	4.56
5)	T	Chloromethane	1.847	1.763	1.620	1.507	1.310	1.159	1.477	19.27
6)	T	Vinyl chloride	1.660	1.653	1.472	1.357	1.165	1.006	1.327	21.56
7)	T	1,3-Butadiene	1.601	1.627	1.371	1.181	0.967	0.827	1.197	29.01
8)	T	Bromomethane	1.227	1.307	1.235	1.174	1.067	1.037	1.174	8.12
9)	T	Chloroethane	0.783	0.842	0.799	0.748	0.659	0.627	0.734	10.93
10)	T	Trichlorofluorometh	2.957	3.291	3.110	2.944	2.675	2.690	2.926	7.63
11)	T	Ethanol		0.411	0.392	0.353	0.303	0.299	0.344	14.29
12)	T	Freon113	2.286	2.779	2.599	2.448	2.197	2.174	2.350	11.83
13)	T	1,1-Dichloroethene	2.184	2.343	2.135	1.964	1.715	1.677	1.965	13.44
14)	T	Acetone	2.911	2.386	2.165	1.896	1.546	1.550	1.995	26.41
15)	T	Carbon disulfide	3.504	3.688	3.465	3.193	2.843	2.729	3.197	11.51
16)	T	2-Propanol	2.114	2.100	1.947	1.777	1.579	1.528	1.800	14.25
17)	T	Methylene chloride	2.072	1.837	1.693	1.521	1.283	1.254	1.562	20.43
18)	T	tert-Butyl Methyl E	3.180	3.050	2.814	2.488	2.027	2.190	2.572	17.46
19)	T	trans-1,2-Dichloroe	2.060	2.228	2.061	1.889	1.607	1.654	1.880	13.02
20)	T	n-Hexane	2.289	2.474	2.295	2.094	1.807	1.835	2.078	13.69
21)	T	1,1-Dichloroethane	2.340	2.483	2.311	2.058	1.706	1.796	2.078	14.68
22)	T	Vinyl acetate	2.549	3.923	3.578	3.120	2.462	2.554	2.954	20.18
23)	T	cis-1,2-Dichloroeth	1.160	1.294	1.206	1.116	0.962	1.048	1.127	9.52
24)	T	2-Butanone	2.807	2.550	2.376	2.071	1.731	1.771	2.143	20.65
25)	T	Ethyl acetate	3.391	3.335	3.022	2.691	2.156	2.202	2.711	20.20
26)	T	Tetrahydrofuran	1.823	1.634	1.509	1.334	1.096	1.048	1.342	24.50
27)	T	Chloroform	2.554	2.912	2.749	2.539	2.175	2.081	2.415	15.44
28)	T	1,1,1-Trichloroetha	2.150	2.801	2.699	2.523	2.172	2.033	2.311	15.98
29)	T	Cyclohexane	2.300	2.699	2.512	2.292	1.926	1.731	2.138	20.18
30)	T	Carbon tetrachlorid	1.892	2.322	2.211	2.057	1.830	1.951	2.018	9.29
31)	T	Benzene	3.326	3.354	3.128	2.763	2.268	2.435	2.830	15.64
32)	T	1,2-Dichloroethane	1.662	1.726	1.610	1.432	1.187	1.201	1.417	18.02
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.822	1.070	1.025	0.960	0.853	0.808	0.884	16.43
35)	T	Trichloroethene	0.371	0.472	0.466	0.449	0.418	0.470	0.438	8.54
36)	T	1,2-Dichloropropane	0.344	0.419	0.399	0.366	0.316	0.359	0.363	9.75
37)	T	1,4-Dioxane	0.154	0.137	0.131	0.121	0.106	0.115	0.125	13.51
38)	T	Bromodichloromethan	0.534	0.728	0.706	0.667	0.595	0.687	0.649	10.48
39)	T	cis-1,3-Dichloropro	0.455	0.597	0.577	0.538	0.471	0.540	0.530	9.75
40)	T	4-Methyl-2-pentanon	0.237	0.270	0.260	0.242	0.215	0.236	0.242	7.49
41)	T	Toluene	0.892	1.040	1.004	0.934	0.822	0.937	0.932	7.83
42)	T	trans-1,3-Dichlorop	0.367	0.511	0.501	0.469	0.408	0.469	0.457	11.28
43)	T	1,1,2-Trichloroetha	0.291	0.344	0.331	0.313	0.279	0.330	0.316	7.39
44)	T	Tetrachloroethene	0.438	0.513	0.514	0.490	0.475	0.504	0.481	6.99
45)	T	2-Hexanone	0.603	0.579	0.555	0.510	0.451	0.475	0.518	12.02
46)	T	Chlorodibromomethan	0.385	0.512	0.505	0.483	0.443	0.534	0.479	10.49
47)	T	1,2-Dibromoethane	0.417	0.494	0.482	0.458	0.400	0.475	0.455	7.55
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.928	1.010	0.969	0.911	0.816	0.936	0.928	6.44

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 2011
Response via : Initial Calibration

Calibration Files
2 =10141103.D 4 =10141104.D 5 =10141105.D
6 =10141106.D 7 =10141107.D 8 =10141109.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.614	1.758	1.678	1.576	1.431	1.601	1.589	7.14
51)	T	m,p-Xylene	1.291	1.497	1.471	1.379	1.264	1.247	1.301	13.93
52)	T	o-Xylene	1.191	1.263	1.218	1.135	1.063	1.199	1.164	6.40
53)	T	Styrene	0.832	0.862	0.822	0.778	0.707	0.814	0.796	6.58
54)	T	Bromoform	0.520	0.627	0.617	0.585	0.529	0.615	0.579	7.52
55)	S	4-Bromofluorobenzen	0.630	0.582	0.575	0.564	0.546	0.540	0.565	6.34
56)	T	1,1,2,2-Tetrachloro	1.081	0.959	0.907	0.833	0.711	0.793	0.858	15.63
57)	T	4-Ethyltoluene	1.889	1.430	1.364	1.253	1.129	1.250	1.357	18.85
58)	T	1,3,5-Trimethylbenz	1.649	1.210	1.165	1.063	0.962	1.082	1.163	19.85
59)	T	1,2,4-Trimethylbenz	1.651	1.141	1.070	0.993	0.860	0.970	1.086	24.44
60)	T	1,3-Dichlorobenzene	0.993	0.699	0.673	0.603	0.499	0.562	0.649	26.00
61)	T	1,4-Dichlorobenzene	0.869	0.645	0.629	0.565	0.467	0.531	0.599	22.86
62)	T	Benzyl chloride	0.542	0.860	0.852	0.771	0.649	0.732	0.722	16.14
63)	T	1,2-Dichlorobenzene	0.965	0.644	0.617	0.558	0.447	0.500	0.595	30.43
64)	T	1,2,4-Trichlorobenz		0.096	0.102	0.091	0.073	0.086	0.087	12.55
65)	T	Hexachlorobutadiene		0.231	0.239	0.210	0.175	0.189	0.203	13.58
66)		Naphthalene		0.144	0.156	0.140	0.114	0.131	0.134	11.80

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\101411V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Tue Oct 18 07:06:35 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	0.521	A	2	A	B
3	T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4	T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5	T	Chloromethane	50	5.99	0.566	A	3	A	B
6	T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7	T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8	T	Bromomethane	94	6.84	0.646	A	3	A	B
9	T	Chloroethane	64	6.99	0.660	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	0.754	A	2	A	B
13	T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14	T	Acetone	43	8.19	0.773	A	2	A	B
15	T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16	T	2-Propanol	45	8.24	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	0.846	A	2	A	B
19	T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20	T	n-Hexane	57	9.22	0.871	A	3	A	B
21	T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22	T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23	T	cis-1,2-Dichloroethene	96	10.28	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	10.61	1.002	A	2	A	B
28	T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29	T	Cyclohexane	56	10.86	1.026	A	2	A	B
30	T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31	T	Benzene	78	11.30	1.067	A	3	A	B
32	T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I	1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34	T	Heptane	43	11.34	0.971	A	3	A	B
35	T	Trichloroethene	130	12.02	1.029	A	3	A	B
36	T	1,2-Dichloropropane	63	12.39	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	1.141	A	3	A	B
41	T	Toluene	91	13.62	1.166	A	2	A	B
42	T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43	T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44	T	Tetrachloroethene	166	14.33	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	14.98	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	17.35	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	18.96	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	23.45	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

101411V1.M Fri Oct 21 09:29:13 2011

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 2011
Response via : Initial Calibration

Calibration Files
2 =10181105.D 4 =10181106.D 5 =10181107.D
6 =10181108.D 7 =10181109.D 8 =10181110.D

		Compound	2	4	5	6	7	8	Avg	%RSD
1)	I	Bromochloromethane	----------ISTD----------							
2)	T	Propylene	1.438	1.423	1.346	1.271	1.179	1.134	1.280	9.80
3)	T	Dichlorodifluoromet	3.745	3.609	3.423	3.248	3.078	3.049	3.341	7.88
4)	T	1,2-Dichloro-1,2,2,	2.091	2.405	2.271	2.175	2.140	2.179	2.202	4.75
5)	T	Chloromethane	1.675	1.669	1.549	1.421	1.292	1.188	1.418	15.71
6)	T	Vinyl chloride	1.633	1.733	1.601	1.341	1.158	1.051	1.360	21.97
7)	T	1,3-Butadiene	1.588	1.615	1.487	1.326	1.043	0.870	1.250	26.92
8)	T	Bromomethane	1.222	1.322	1.248	1.185	1.125	1.096	1.200	6.31
9)	T	Chloroethane	0.788	0.857	0.809	0.750	0.708	0.669	0.754	8.92
10)	T	Trichlorofluorometh	2.949	3.328	3.203	3.046	2.943	2.834	3.019	6.21
11)	T	Ethanol		0.351	0.367	0.336	0.308	0.270	0.319	12.31
12)	T	Freon113	2.277	2.688	2.666	2.586	2.432	2.171	2.393	11.77
13)	T	1,1-Dichloroethene	2.137	2.325	2.165	2.038	1.903	1.738	2.006	11.17
14)	T	Acetone	2.645	1.784	2.041	1.788	1.601	1.347	1.797	24.88
15)	T	Carbon disulfide	3.434	3.708	3.482	3.281	3.095	2.903	3.276	8.70
16)	T	2-Propanol	2.129	1.740	1.814	1.669	1.520	1.379	1.667	15.64
17)	T	Methylene chloride	2.046	1.687	1.676	1.523	1.372	1.214	1.535	19.31
18)	T	tert-Butyl Methyl E	2.969	2.154	2.628	2.343	2.122	1.823	2.290	17.21
19)	T	trans-1,2-Dichloroe	2.060	2.007	2.055	1.905	1.728	1.571	1.845	11.63
20)	T	n-Hexane	2.235	2.151	2.267	2.073	1.889	1.717	2.000	12.17
21)	T	1,1-Dichloroethane	2.322	2.110	2.310	2.070	1.880	1.690	2.023	12.31
22)	T	Vinyl acetate	2.497	2.805	3.280	2.865	2.567	2.158	2.629	14.84
23)	T	cis-1,2-Dichloroeth	1.149	1.118	1.199	1.107	1.025	0.971	1.088	7.20
24)	T	2-Butanone	2.477	1.869	2.049	1.973	1.679	1.469	1.862	18.74
25)	T	Ethyl acetate	3.200	2.496	2.730	2.458	2.176	1.863	2.418	18.93
26)	T	Tetrahydrofuran	1.782	1.253	1.391	1.226	1.106	0.948	1.228	24.43
27)	T	Chloroform	2.521	2.508	2.665	2.469	2.240	1.976	2.313	13.66
28)	T	1,1,1-Trichloroetha	2.150	2.360	2.618	2.421	2.207	1.906	2.195	14.25
29)	T	Cyclohexane	2.209	2.283	2.440	2.216	1.957	1.647	2.027	17.99
30)	T	Carbon tetrachlorid	1.912	2.011	2.196	2.041	1.919	1.795	1.947	7.79
31)	T	Benzene	3.190	2.596	2.987	2.644	2.411	2.127	2.609	14.38
32)	T	1,2-Dichloroethane	1.538	1.330	1.546	1.374	1.255	1.089	1.308	15.43
33)	I	1,4-Difluorobenzene	----------ISTD----------							
34)	T	Heptane	0.830	0.893	1.022	0.960	0.876	0.778	0.859	14.13
35)	T	Trichloroethene	0.396	0.436	0.489	0.476	0.469	0.461	0.450	7.36
36)	T	1,2-Dichloropropane	0.340	0.334	0.402	0.369	0.348	0.325	0.350	7.75
37)	T	1,4-Dioxane	0.165	0.114	0.132	0.123	0.115	0.107	0.123	16.38
38)	T	Bromodichloromethan	0.562	0.614	0.734	0.690	0.669	0.646	0.649	8.57
39)	T	cis-1,3-Dichloropro	0.460	0.497	0.601	0.559	0.537	0.518	0.530	8.50
40)	T	4-Methyl-2-pentanon	0.255	0.221	0.260	0.241	0.227	0.219	0.236	7.02
41)	T	Toluene	0.928	0.861	1.022	0.948	0.902	0.862	0.915	6.24
42)	T	trans-1,3-Dichlorop	0.375	0.427	0.515	0.479	0.462	0.453	0.456	9.82
43)	T	1,1,2-Trichloroetha	0.307	0.293	0.349	0.328	0.316	0.313	0.319	5.61
44)	T	Tetrachloroethene	0.469	0.473	0.541	0.512	0.514	0.496	0.492	7.13
45)	T	2-Hexanone	0.643	0.471	0.564	0.523	0.485	0.462	0.514	13.34
46)	T	Chlorodibromomethan	0.409	0.451	0.544	0.517	0.520	0.526	0.496	9.74
47)	T	1,2-Dibromoethane	0.413	0.424	0.511	0.479	0.470	0.478	0.465	7.37
48)	I	Chlorobenzene-d5	----------ISTD----------							
49)	T	Chlorobenzene	0.945	0.836	0.980	0.920	0.872	0.867	0.904	5.46

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

Response Factor Report VOA 1

Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 2011
Response via : Initial Calibration

Calibration Files
2 =10181105.D 4 =10181106.D 5 =10181107.D
6 =10181108.D 7 =10181109.D 8 =10181110.D

		Compound	2	4	5	6	7	8	Avg	%RSD
50)	T	Ethylbenzene	1.702	1.418	1.653	1.566	1.464	1.439	1.522	7.83
51)	T	m,p-Xylene	1.352	1.191	1.432	1.365	1.269	1.140	1.240	13.67
52)	T	o-Xylene	1.284	1.027	1.206	1.148	1.099	1.091	1.128	8.11
53)	T	Styrene	0.844	0.717	0.844	0.804	0.770	0.782	0.789	5.75
54)	T	Bromoform	0.508	0.529	0.628	0.603	0.595	0.610	0.579	7.64
55)	S	4-Bromofluorobenzen	0.605	0.588	0.598	0.587	0.587	0.585	0.588	2.18
56)	T	1,1,2,2-Tetrachloro	1.038	0.779	0.891	0.819	0.775	0.764	0.830	12.44
57)	T	4-Ethyltoluene	1.860	1.202	1.430	1.336	1.260	1.278	1.374	16.49
58)	T	1,3,5-Trimethylbenz	1.642	1.014	1.207	1.128	1.079	1.104	1.177	18.14
59)	T	1,2,4-Trimethylbenz	1.580	0.945	1.102	1.018	0.974	0.997	1.086	20.55
60)	T	1,3-Dichlorobenzene	0.846	0.532	0.625	0.561	0.541	0.538	0.600	18.81
61)	T	1,4-Dichlorobenzene	0.722	0.483	0.567	0.516	0.493	0.490	0.541	15.66
62)	T	Benzyl chloride	0.506	0.608	0.739	0.665	0.656	0.643	0.638	11.01
63)	T	1,2-Dichlorobenzene	0.826	0.473	0.548	0.483	0.466	0.452	0.530	25.29
64)	T	1,2,4-Trichlorobenz		0.054	0.071	0.064	0.067	0.069	0.067	10.65
65)	T	Hexachlorobutadiene		0.157	0.187	0.166	0.166	0.167	0.169	5.93
66)		Naphthalene		0.087	0.111	0.099	0.103	0.108	0.104	10.06

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

Compound List Report VOA 1

Method : C:\HPCHEM\1\METHODS\101811V1.M (RTE Integrator)
Title : TO15 ppbv
Last Update : Wed Oct 19 11:42:45 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	0.521	A	2	A	B
3		T	Dichlorodifluoromethane	85	5.59	0.528	A	3	A	B
4		T	1,2-Dichloro-1,2,2,2-tetrafluo	135	5.84	0.552	A	2	A	B
5		T	Chloromethane	50	5.99	0.566	A	3	A	B
6		T	Vinyl chloride	62	6.20	0.585	A	2	A	B
7		T	1,3-Butadiene	39	6.26	0.591	A	2	A	B
8		T	Bromomethane	94	6.84	0.646	A	3	A	B
9		T	Chloroethane	64	6.99	0.660	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	0.754	A	2	A	B
13		T	1,1-Dichloroethene	61	8.09	0.764	A	2	A	B
14		T	Acetone	43	8.19	0.773	A	2	A	B
15		T	Carbon disulfide	76	8.46	0.799	A	3	A	B
16		T	2-Propanol	45	8.24	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	0.846	A	2	A	B
19		T	trans-1,2-Dichloroethene	61	9.03	0.853	A	2	A	B
20		T	n-Hexane	57	9.22	0.871	A	3	A	B
21		T	1,1-Dichloroethane	63	9.59	0.906	A	3	A	B
22		T	Vinyl acetate	43	9.53	0.900	A	2	A	B
23		T	cis-1,2-Dichloroethene	96	10.28	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	10.61	1.002	A	2	A	B
28		T	1,1,1-Trichloroethane	97	10.85	1.025	A	3	A	B
29		T	Cyclohexane	56	10.86	1.026	A	2	A	B
30		T	Carbon tetrachloride	117	11.01	1.041	A	3	A	B
31		T	Benzene	78	11.30	1.067	A	3	A	B
32		T	1,2-Dichloroethane	62	11.38	1.075	A	3	A	B
33	I		1,4-Difluorobenzene	114	11.68	1.000	A	2	A	B
34		T	Heptane	43	11.34	0.971	A	3	A	B
35		T	Trichloroethene	130	12.02	1.029	A	3	A	B
36		T	1,2-Dichloropropane	63	12.39	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	1.141	A	3	A	B
41		T	Toluene	91	13.62	1.166	A	2	A	B
42		T	trans-1,3-Dichloropropene	75	13.93	1.192	A	3	A	B
43		T	1,1,2-Trichloroethane	97	14.20	1.215	A	3	A	B
44		T	Tetrachloroethene	166	14.33	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	14.98	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	17.35	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	18.96	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	23.45	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

101811V1.M Thu Oct 20 10:55:31 2011

RTI Laboratories

Run ID: VOA9_111005A **Run No.:** 43279

Analytical Run Date: 10/5/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 100511 VOA9	BFB_TUNE	TUNE	R43279	10/5/2011 2:13:00 PM	Charles O`Bryan		
CCV1 100511 VOA9	MA_APH	CCV	R43279	10/5/2011 2:56:00 PM	Charles O`Bryan		
BLANK 100511 VOA	MA_APH	MBLK	R43279	10/5/2011 3:48:00 PM	Charles O`Bryan		
RLVS1 100511 VOA	MA_APH	RLVS	R43279	10/5/2011 4:31:00 PM	Charles O`Bryan		
1110067-007B	MA_APH	SAMP	R43279	10/5/2011 9:29:00 PM	Charles O`Bryan		
1110067-007BDUP	MA_APH	DUP	R43279	10/5/2011 10:11:00 PM	Charles O`Bryan		
1110067-010B	MA_APH	SAMP	R43279	10/6/2011 12:18:00 AM	Charles O`Bryan		
1110067-011B	MA_APH	SAMP	R43279	10/6/2011 1:00:00 AM	Charles O`Bryan		
1110067-003B	MA_APH	SAMP	R43279	10/6/2011 3:18:00 AM	Charles O`Bryan		
1110067-004B	MA_APH	SAMP	R43279	10/6/2011 4:07:00 AM	Charles O`Bryan		
1110067-005B	MA_APH	SAMP	R43279	10/6/2011 4:56:00 AM	Charles O`Bryan		
1110067-006B	MA_APH	SAMP	R43279	10/6/2011 5:45:00 AM	Charles O`Bryan		
1110067-007B	MA_APH	SAMP	R43279	10/6/2011 7:36:00 AM	Charles O`Bryan		
1110067-008B	MA_APH	SAMP	R43279	10/6/2011 8:25:00 AM	Charles O`Bryan		
1110067-009B	MA_APH	SAMP	R43279	10/6/2011 9:14:00 AM	Charles O`Bryan		
1110067-016B	MA_APH	SAMP	R43279	10/6/2011 11:20:00 AM	Charles O`Bryan		
RLVS2 100511 VOA	MA_APH	RLVS	R43279	10/6/2011 12:47:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43279

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
844363	BFB1 100511 VOA9	BFB_TUNE	TUNE	\1\DATA\100511	10/5/2011 2:13:0	1	R43279		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		96.2	96.2		0	0	0	0	0	0	0%	50	120	0%	
175	M		5.7	5.7		0	0	0	0	0	0	0%	4	9	0%	
176	M		96	96		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		22.5	22.5		0	0	0	0	0	0	0%	8	40	0%	
75	M		45.6	45.6		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.3	6.3		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
844364	CCV1 100511 VOA9	MA_APH	CCV	\1\DATA\100511	10/5/2011 2:56:0	1	R43279		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	189.64	189.64		234	0	0	0	0	0	81%	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	199.27	199.27		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	311.45	311.45		378	0	0	0	0	0	82%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	101.66	101.66		89.5	0	0	0	0	0	114%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100511\10051102.D Vial: 2
Acq On : 5 Oct 2011 2:56 pm Operator: RACHEL HILL
Sample : CCV1 100511 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 6 10:11 2011 Quant Results File: 092111V9.RES

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

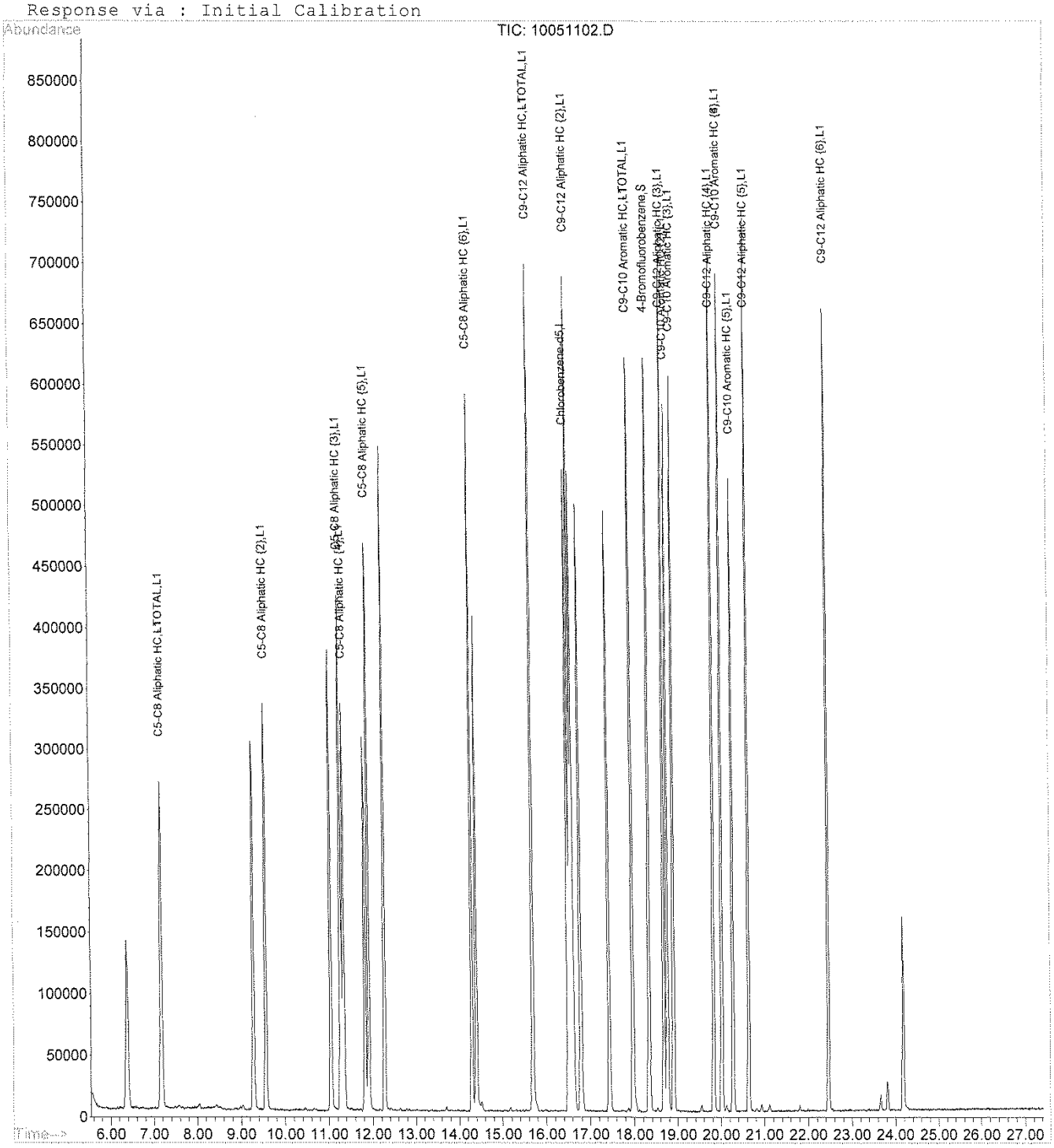
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	398034	12.50	ug/m3	-0.02
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	289845	101.66	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 113.59%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	901315	28.96	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	859783	28.54	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	1082077	32.42	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	864602	27.19	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1059828	33.15	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	1291700	39.55	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	6059305m	189.64	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1625241	45.97	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1501653	44.25	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	1496484	50.13	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	1592703	51.16	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1532180	58.36	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	1365459	61.00	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	9113720m	311.45	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	139640	38.12	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	146800	37.89	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	216750	38.42	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	54554	46.90	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	166939	38.61	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	146339	45.88	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	871022m	199.27	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\100511\10051102.D Vial: 2
Acq On : 5 Oct 2011 2:56 pm Operator: RACHEL HILL
Sample : CCV1 100511 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 6 10:11 2011 Quant Results File: 092111V9.RES

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



RTI Laboratories

Run ID: VOA9_111006A **Run No.:** 43341

Analytical Run Date: 10/6/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 100611 VOA9	BFB_TUNE	TUNE	R43341	10/6/2011 1:37:00 PM	Charles O`Bryan		
CCV1 100611 VOA9	MA_APH	CCV	R43341	10/6/2011 2:20:00 PM	Charles O`Bryan		
RLVS1 100511 VOA	MA_APH	RLVS	R43341	10/6/2011 3:07:00 PM	Charles O`Bryan		
Blank 100611 VOA	MA_APH	MBLK	R43341	10/6/2011 3:57:00 PM	Charles O`Bryan		
1110067-019B	MA_APH	SAMP	R43341	10/6/2011 5:22:00 PM	Charles O`Bryan		
1110067-020B	MA_APH	SAMP	R43341	10/6/2011 6:04:00 PM	Charles O`Bryan		
1110067-025B	MA_APH	SAMP	R43341	10/6/2011 9:37:00 PM	Charles O`Bryan		Sample needs higher dilution. Reporting here to show that sample and duplicate were analyzed.
1110067-025BDUP	MA_APH	DUP	R43341	10/6/2011 10:19:00 PM	Charles O`Bryan		
1110067-031B	MA_APH	SAMP	R43341	10/7/2011 2:33:00 AM	Charles O`Bryan		
1110067-032B	MA_APH	SAMP	R43341	10/7/2011 9:23:00 AM	Charles O`Bryan		
1110067-021B	MA_APH	SAMP	R43341	10/7/2011 10:14:00 AM	Charles O`Bryan		
1110067-024B	MA_APH	SAMP	R43341	10/7/2011 11:04:00 AM	Charles O`Bryan		
RLVS2 100511 VOA	MA_APH	RLVS	R43341	10/7/2011 1:34:00 PM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43341

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
846003	BFB1 100611 VOA9	BFB_TUNE	TUNE	:\1\DATA\100611	10/6/2011 1:37:0	1	R43341		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		87.3	87.3		0	0	0	0	0	0	0%	50	120	0%	
175	M		8.3	8.3		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.8	97.8		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	
50	M		23.8	23.8		0	0	0	0	0	0	0%	8	40	0%	
75	M		46.5	46.5		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
846004	CCV1 100611 VOA9	MA_APH	CCV	:\1\DATA\100611	10/6/2011 2:20:0	1	R43341		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	177.31	177.31		234	0	0	0	0	0	76%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	188	188		266	0	0	0	0	0	71%	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	300.72	300.72		378	0	0	0	0	0	80%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	103.14	103.14		89.5	0	0	0	0	0	115%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100611\10061102.D Vial: 2
Acq On : 6 Oct 2011 2:20 pm Operator: RACHEL HILL
Sample : CCV1 100611 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 6 20:57 2011 Quant Results File: 092111V9.RES

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

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	394346	12.50 ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	291324	103.14 ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 115.24%

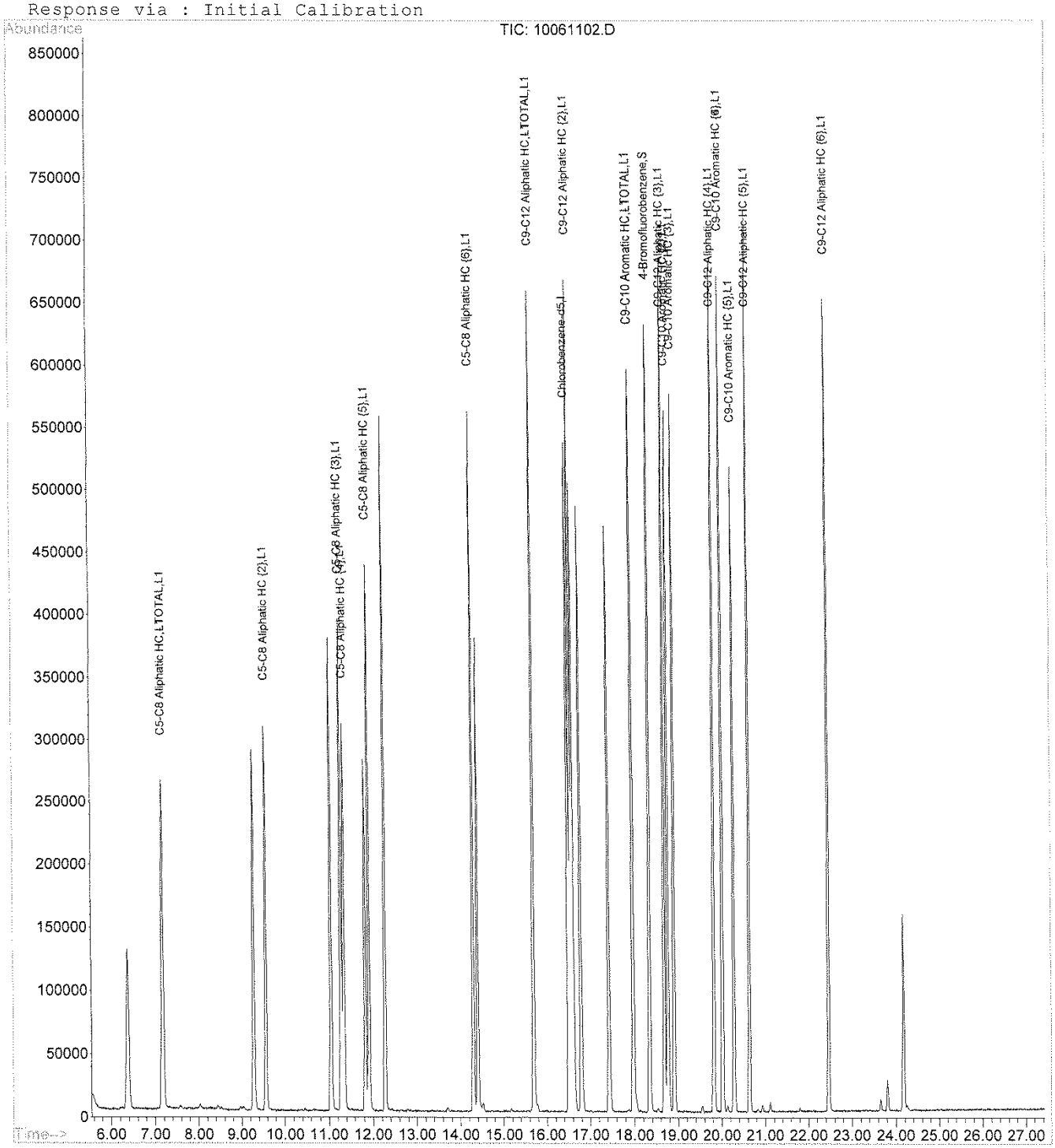
Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	873908	28.08 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	787106	26.13 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	1004858	30.10 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	793671	24.96 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	980209	30.66 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	1225823	37.54 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	5665575m	177.31 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1538884	43.53 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1453302	42.83 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	1454996	48.74 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	1540294	49.47 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1480743	56.40 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	1331592	59.49 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	8799811m	300.72 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	129762	35.42 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	137357	35.46 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	206119	36.54 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	52765	45.36 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	157340	36.39 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	138407	43.40 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	821750m	188.00 ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\100611\10061102.D Vial: 2
Acq On : 6 Oct 2011 2:20 pm Operator: RACHEL HILL
Sample : CCV1 100611 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 6 20:57 2011 Quant Results File: 092111V9.RES

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



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Run ID: VOA9_111007A **Run No.:** 43342

Analytical Run Date: 10/7/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42997 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 100711 VOA9	BFB_TUNE	TUNE	R43342	10/7/2011 2:25:00 PM	Charles O`Bryan		
CCV1 100711 VOA9	MA_APH	CCV	R43342	10/7/2011 3:09:00 PM	Charles O`Bryan		
RLVS1 100711 VOA	MA_APH	RLVS	R43342	10/7/2011 4:21:00 PM	Charles O`Bryan		
Blank VOA9 10071	MA_APH	MBLK	R43342	10/7/2011 5:11:00 PM	Charles O`Bryan		
1110067-034B	MA_APH	SAMP	R43342	10/7/2011 5:55:00 PM	Charles O`Bryan		
1110067-036B	MA_APH	SAMP	R43342	10/7/2011 7:22:00 PM	Charles O`Bryan		Sample ran at too high of a dilution. Reporting here to show that sample and duplicate were analyzed. Re-analyzed at lower dilution later in run.
1110067-036BDUP	MA_APH	DUP	R43342	10/7/2011 8:06:00 PM	Charles O`Bryan		
1110067-038B	MA_APH	SAMP	R43342	10/7/2011 9:32:00 PM	Charles O`Bryan		
1110067-039B	MA_APH	SAMP	R43342	10/7/2011 10:16:00 PM	Charles O`Bryan		
1110067-042B	MA_APH	SAMP	R43342	10/8/2011 12:26:00 AM	Charles O`Bryan		
1110067-044B	MA_APH	SAMP	R43342	10/8/2011 1:52:00 AM	Charles O`Bryan		
1110067-045B	MA_APH	SAMP	R43342	10/8/2011 2:36:00 AM	Charles O`Bryan		
1110067-001B	MA_APH	SAMP	R43342	10/8/2011 3:19:00 AM	Charles O`Bryan		
1110067-002B	MA_APH	SAMP	R43342	10/8/2011 4:05:00 AM	Charles O`Bryan		
1110067-035B	MA_APH	SAMP	R43342	10/8/2011 4:55:00 AM	Charles O`Bryan		
1110067-036B	MA_APH	SAMP	R43342	10/8/2011 5:45:00 AM	Charles O`Bryan		
1110067-037B	MA_APH	SAMP	R43342	10/8/2011 6:34:00 AM	Charles O`Bryan		
1110067-040B	MA_APH	SAMP	R43342	10/8/2011 11:25:00 AM	Charles O`Bryan		
1110067-043B	MA_APH	SAMP	R43342	10/8/2011 12:11:00 PM	Charles O`Bryan		
RLVS2 100711 VOA	MA_APH	RLVS	R43342	10/8/2011 12:54:00 PM	Charles O`Bryan		

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ANALYTICAL RUN Summary

21-Oct-11

RunNo 43342

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
846017	BFB1 100711 VOA9	BFB_TUNE	TUNE	\1\DATA\100711	10/7/2011 2:25:0	1	R43342		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		89.8	89.8		0	0	0	0	0	0	0%	50	120	0%	
175	M		6.6	6.6		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.2	97.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		5.9	5.9		0	0	0	0	0	0	0%	5	9	0%	
50	M		21.4	21.4		0	0	0	0	0	0	0%	8	40	0%	
75	M		45.2	45.2		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.1	6.1		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
846018	CCV1 100711 VOA9	MA_APH	CCV	\1\DATA\100711	10/7/2011 3:09:0	1	R43342		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	194.81	194.81		234	0	0	0	0	0	83%	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	199.58	199.58		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	341.04	341.04		378	0	0	0	0	0	90%	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	109.76	109.76		89.5	0	0	0	0	0	123%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\100711\10071102.D Vial: 2
Acq On : 7 Oct 2011 3:09 pm Operator: RACHEL HILL
Sample : CCV1 100711 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 19:40 2011 Quant Results File: 092111V9.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	348530	12.50	ug/m3	-0.02

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	274010	109.76	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 122.64%

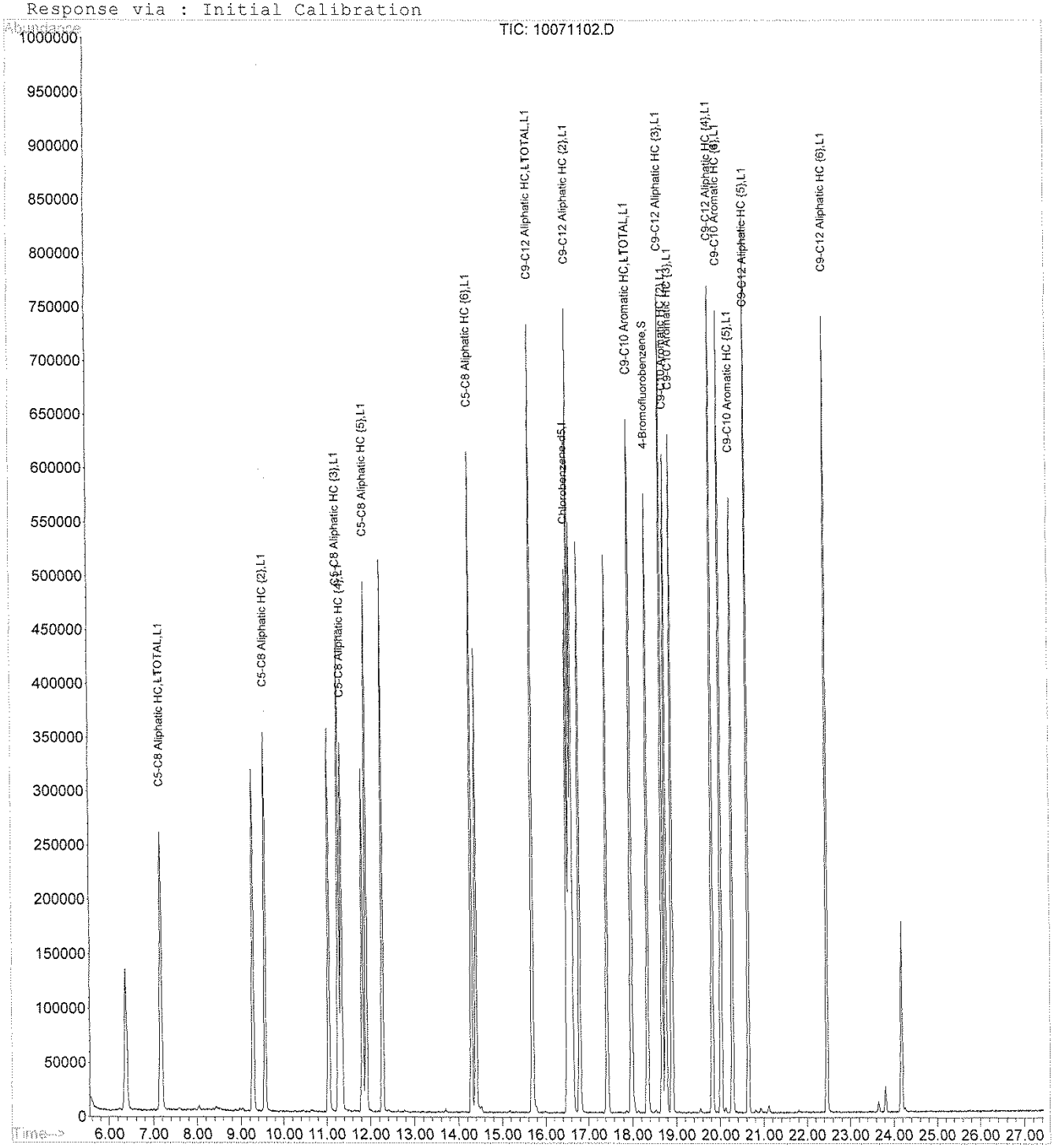
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	865786	27.82	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	890273	29.55	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	1139344	34.13	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	878750	27.63	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	1094157	34.22	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	1356324	41.53	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	6224634m	194.81	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	1712140	48.43	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	1620771	47.76	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.67	TIC	1639008	54.90	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	1763541	56.64	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	1710835	65.17	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	1533345	68.51	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	9979640m	341.04	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	136325	37.21	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	146055	37.70	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	216698	38.41	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	55620	47.81	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	170477	39.43	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	147197	46.15	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	872372m	199.58	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\100711\10071102.D Vial: 2
Acq On : 7 Oct 2011 3:09 pm Operator: RACHEL HILL
Sample : CCV1 100711 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 9 19:40 2011 Quant Results File: 092111V9.RES

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



RTI Laboratories

Run ID: VOA9_111011A

Run No.: 43407

Analytical Run Date: 10/11/2011

InstrumentID: VOA9

Analyst: Rachel Hill

Column:

Calibration ID: 43407

Column ID:

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 101111 VOA9	BFB_TUNE	TUNE	R43407	10/11/2011 8:29:00 AM	Fred J Hoitash		
APH ICAL Level 1	MA_APH	ICAL	R43407	10/11/2011 10:02:00 AM	Fred J Hoitash		
APH ICAL Level 2	MA_APH	ICAL	R43407	10/11/2011 10:45:00 AM	Fred J Hoitash		
APH ICAL Level 3	MA_APH	ICAL	R43407	10/11/2011 11:28:00 AM	Fred J Hoitash		
APH ICAL Level 4	MA_APH	ICAL	R43407	10/11/2011 12:12:00 PM	Fred J Hoitash		
APH ICAL Level 5	MA_APH	ICAL	R43407	10/11/2011 12:56:00 PM	Fred J Hoitash		
APH ICAL Level 6	MA_APH	ICAL	R43407	10/11/2011 1:40:00 PM	Fred J Hoitash		
APH ICAL Level 7	MA_APH	ICAL	R43407	10/11/2011 2:26:00 PM	Fred J Hoitash		
BFB2 092111 VOA9	BFB_TUNE	TUNE	R43407	10/11/2011 3:08:00 PM	Fred J Hoitash		
CCV 101111 VOA9	MA_APH	CCV	R43407	10/11/2011 3:51:00 PM	Fred J Hoitash		
RLVS1 101111 VOA	MA_APH	RLVS	R43407	10/11/2011 4:34:00 PM	Fred J Hoitash		
BLK1 101111 VOA9	MA_APH	MBLK	R43407	10/11/2011 5:23:00 PM	Fred J Hoitash		
1110067-041B	MA_APH	SAMP	R43407	10/11/2011 6:55:00 PM	Fred J Hoitash		
1110067-026B	MA_APH	SAMP	R43407	10/11/2011 7:45:00 PM	Fred J Hoitash		
1110067-027B	MA_APH	SAMP	R43407	10/11/2011 8:34:00 PM	Fred J Hoitash		
1110067-028B	MA_APH	SAMP	R43407	10/11/2011 9:23:00 PM	Fred J Hoitash		
1110067-029B	MA_APH	SAMP	R43407	10/11/2011 10:13:00 PM	Fred J Hoitash		
1110067-030B	MA_APH	SAMP	R43407	10/11/2011 11:02:00 PM	Fred J Hoitash		
1110067-030BDUP	MA_APH	DUP	R43407	10/11/2011 11:58:00 PM	Fred J Hoitash		
1110067-022B	MA_APH	SAMP	R43407	10/12/2011 12:47:00 AM	Fred J Hoitash		
1110067-023B	MA_APH	SAMP	R43407	10/12/2011 1:30:00 AM	Fred J Hoitash		
1110067-025B	MA_APH	SAMP	R43407	10/12/2011 2:13:00 AM	Fred J Hoitash		
1110067-033B	MA_APH	SAMP	R43407	10/12/2011 3:02:00 AM	Fred J Hoitash		
1110067-013B	MA_APH	SAMP	R43407	10/12/2011 4:31:00 AM	Fred J Hoitash		
RLVS2 101111 VOA	MA_APH	RLVS	R43407	10/12/2011 2:48:00 PM	Fred J Hoitash		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
848483	BFB2 092111 VOA9	BFB_TUNE	TUNE	\1\DATA\101111	10/11/2011 3:08:	1	R43407		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		62.7	62.7		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.7	7.7		0	0	0	0	0	0	0%	4	9	0%	
176	M		98.2	98.2		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.5	6.5		0	0	0	0	0	0	0%	5	9	0%	
50	M		23	23		0	0	0	0	0	0	0%	8	40	0%	
75	M		49.1	49.1		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.8	6.8		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
848493	CCV 101111 VOA9	MA_APH	CCV	\1\DATA\101111	10/11/2011 3:51:	1	R43407		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	265.73	265.73		234	0	0	0	0	0	114%	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	294.03	294.03		266	0	0	0	0	0	111%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	438.12	438.12		378	0	0	0	0	0	116%	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	89.17	89.17		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
848494	RLVS1 101111 VOA	MA_APH	RLVS	\1\DATA\101111	10/11/2011 4:34:	1	R43407		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\101111\10111111.D
Acq On : 11 Oct 2011 3:51 pm
Sample : CCV 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Oct 12 15:05 2011

Vial: 11
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 101111V9.RES

Quant Method : C:\HPCHEM\1\METHODS\101111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Tue Oct 11 16:11:40 2011
Response via : Initial Calibration
DataAcq Meth : 101111V9

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
40) Chlorobenzene-d5	16.50	117	861959	12.50 ug/m3	-0.01

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	553931	89.17 ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 99.63%

Target Compounds					Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	2738348	33.86 ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2967785	40.75 ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3802965	47.49 ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2872008	39.26 ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3587684	47.54 ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	4328039	56.75 ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	20296829m	265.73 ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	5293445	63.06 ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	5102887	63.10 ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4933249	71.32 ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.82	TIC	4858010	69.35 ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	4938840	82.06 ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	4510418	89.68 ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	29636849m	438.12 ug/m3	
15) C9-C10 Aromatic HC	17.97	120	346339	56.43 ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	367463	56.93 ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	531338	57.48 ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	125165	65.25 ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	418346	58.15 ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	314360	64.73 ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	2103011m	294.03 ug/m3	

(#) = qualifier out of range (m) = manual integration
10111111.D 101111V9.M Thu Oct 20 11:05:35 2011

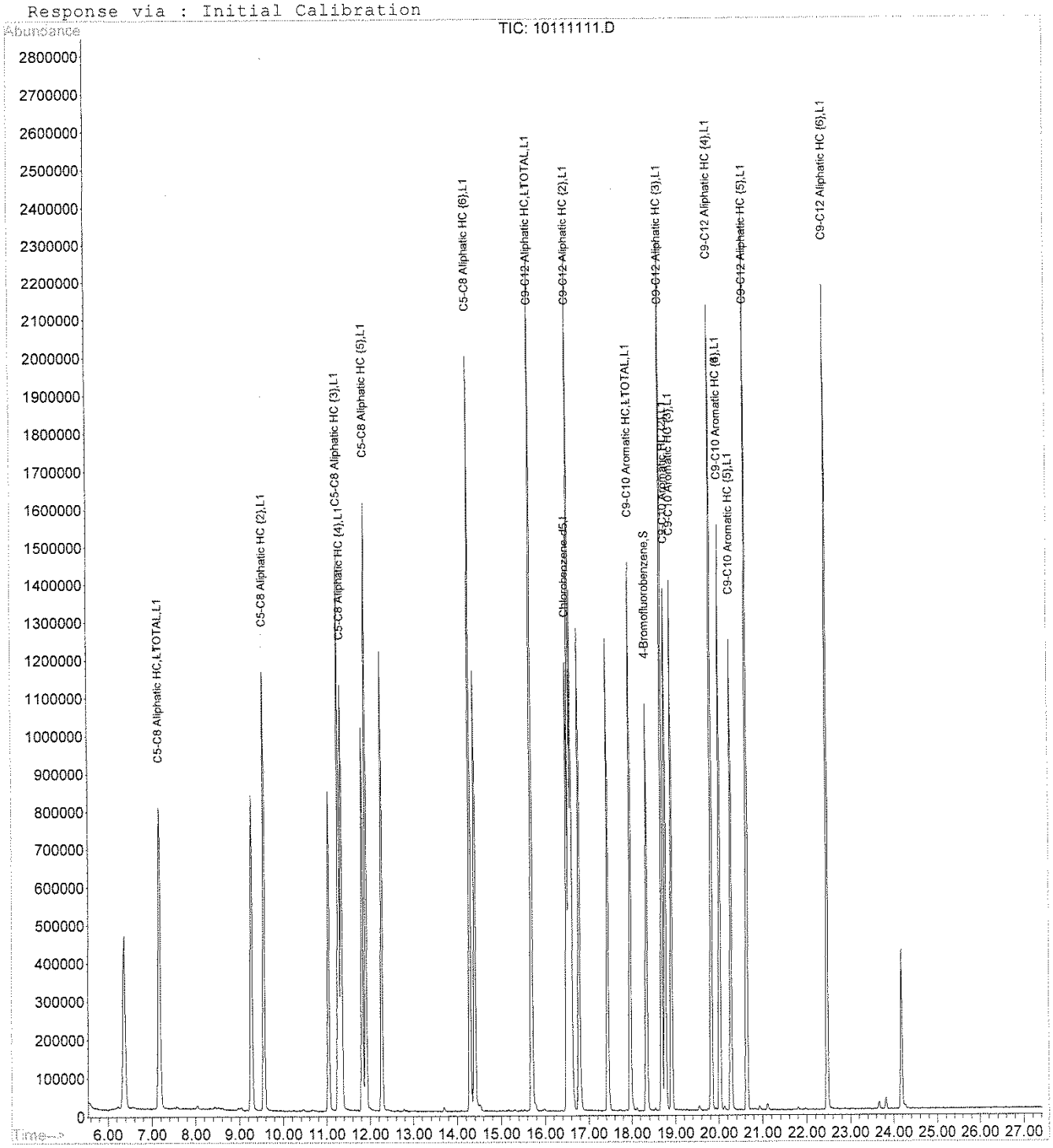
Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\10111111.D
Acq On : 11 Oct 2011 3:51 pm
Sample : CCV 092111 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Oct 12 15:05 2011

Vial: 11
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00

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



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Run ID: VOA9_111013A

Run No.: 43474

Analytical Run Date: 10/13/2011

InstrumentID: VOA9

Analyst: Rachel Hill

Column:

Calibration ID: 43407

Column ID:

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB2 101311 VOA9	BFB_TUNE	TUNE	R43474	10/13/2011 10:17:00 AM	Charles O`Bryan		
CCV 101311 VOA9	MA_APH	CCV	R43474	10/13/2011 11:00:00 AM	Charles O`Bryan		
RLVS1 101311 VOA	MA_APH	RLVS	R43474	10/13/2011 11:58:00 AM	Charles O`Bryan		
BLK1 101311 VOA9	MA_APH	MBLK	R43474	10/13/2011 12:47:00 PM	Charles O`Bryan		
1110067-014B	MA_APH	SAMP	R43474	10/13/2011 1:30:00 PM	Charles O`Bryan		
1109988-019B	MA_APH	SAMP	R43474	10/13/2011 4:26:00 PM	Charles O`Bryan		
1110067-015B	MA_APH	SAMP	R43474	10/13/2011 5:09:00 PM	Charles O`Bryan		
1110367-002B	MA_APH	SAMP	R43474	10/13/2011 6:34:00 PM	Charles O`Bryan		Needs higher dilution. Reported here to show that sample and duplicate were analyzed.
1110367-002BDUP	MA_APH	DUP	R43474	10/13/2011 7:17:00 PM	Charles O`Bryan		
1110367-004B	MA_APH	SAMP	R43474	10/13/2011 8:42:00 PM	Charles O`Bryan		
1110367-005B	MA_APH	SAMP	R43474	10/13/2011 9:24:00 PM	Charles O`Bryan		
1110367-006B	MA_APH	SAMP	R43474	10/13/2011 10:07:00 PM	Charles O`Bryan		
RLVS2 101311 VOA	MA_APH	RLVS	R43474	10/14/2011 9:06:00 AM	Charles O`Bryan		

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ANALYTICAL RUN Summary

21-Oct-11

RunNo 43474

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
849494	BFB2 101311 VOA9	BFB_TUNE	TUNE	\1\DATA\101311	10/13/2011 10:1	1	R43474		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		60.6	60.6		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.3	7.3		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.8	96.8		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.1	6.1		0	0	0	0	0	0	0%	5	9	0%	
50	M		23.5	23.5		0	0	0	0	0	0	0%	8	40	0%	
75	M		48.9	48.9		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.8	6.8		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
849495	CCV 101311 VOA9	MA_APH	CCV	\1\DATA\101311	10/13/2011 11:0	1	R43474		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	245.12	245.12		234	0	0	0	0	0	105%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	250.26	250.26		266	0	0	0	0	0	94%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	401.69	401.69		378	0	0	0	0	0	106%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.01	89.01		89.5	0	0	0	0	0	99%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101311\10131102.D
Acq On : 13 Oct 2011 11:00 am
Sample : CCV 101311 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Oct 14 13:47 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
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	943068	12.50	ug/m3	-0.01

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.34	95	604994	89.01	ug/m3	-0.01

Spiked Amount 89.500 Range 70 - 130 Recovery = 99.45%

Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	2624258	32.44	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2746860	37.72	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.27	TIC	3450266	43.09	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2659982	36.37	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3308094	43.84	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	3932967	51.57	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	18722427m	245.12	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	4867399	57.98	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	4810447	59.49	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4504966	65.13	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	4451402	63.55	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	4512716	74.98	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	4025690	80.05	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	27172620m	401.69	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	295450	48.14	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.76	120	311945	48.33	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	459299	49.68	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	105917	55.21	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	353089	49.08	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	264214	54.40	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1789914m	250.26	ug/m3	

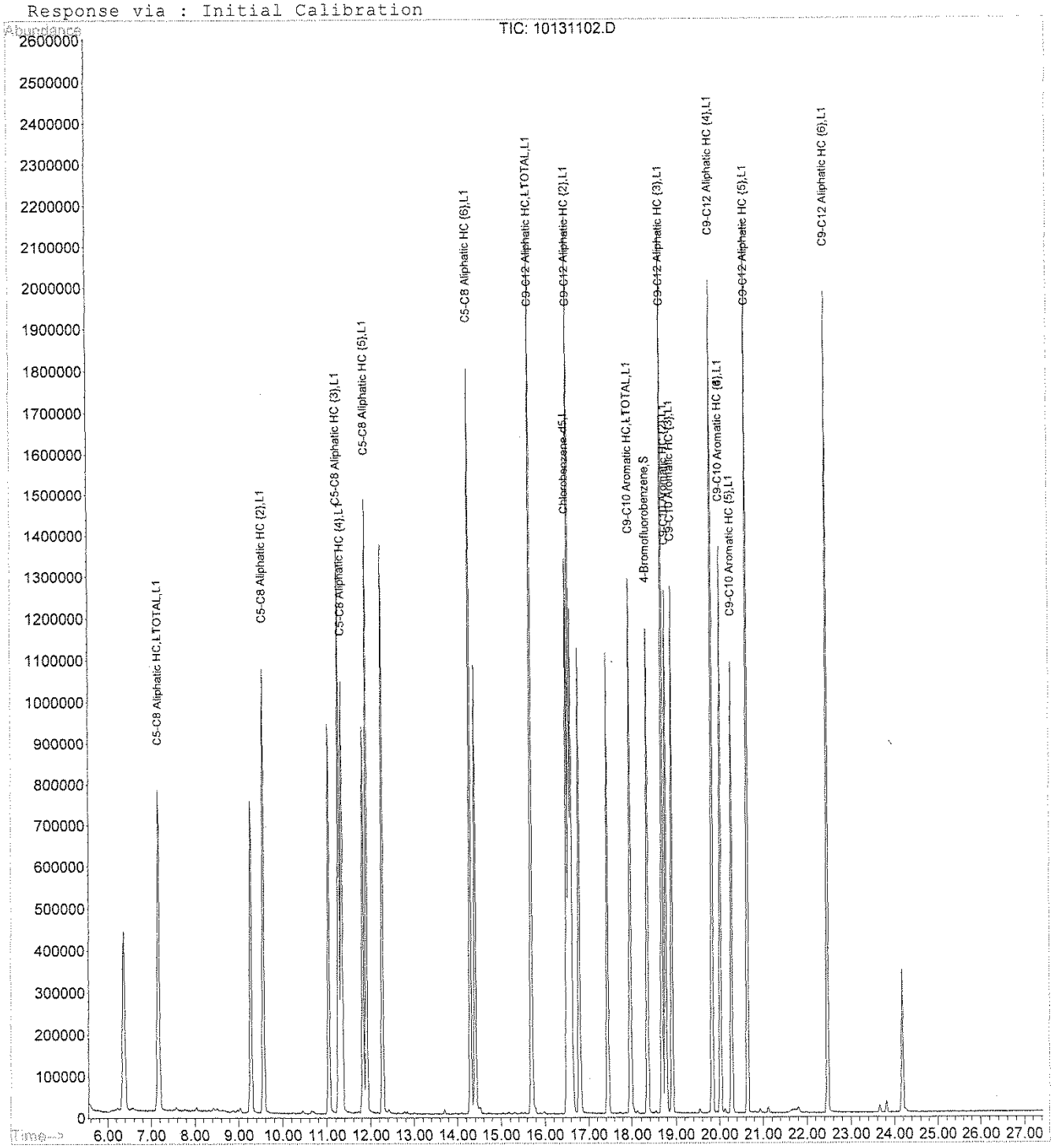
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101311\10131102.D
Acq On : 13 Oct 2011 11:00 am
Sample : CCV 101311 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Oct 14 13:47 2011

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



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Run ID: VOA9_111013B **Run No.:** 43496

Analytical Run Date: 10/13/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB3 101311 VOA9	BFB_TUNE	TUNE	R43496	10/14/2011 9:49:00 AM	Charles O`Bryan		
CCV2 101311 VOA9	MA_APH	CCV	R43496	10/14/2011 10:33:00 AM	Charles O`Bryan		
RLVS3 101311 VOA	MA_APH	RLVS	R43496	10/14/2011 11:17:00 AM	Charles O`Bryan		
BLK2 101311 VOA9	MA_APH	MBLK	R43496	10/14/2011 12:10:00 PM	Charles O`Bryan		
1110367-014B	MA_APH	SAMP	R43496	10/14/2011 1:40:00 PM	Charles O`Bryan		
1110367-015B	MA_APH	SAMP	R43496	10/14/2011 2:23:00 PM	Charles O`Bryan		
1110367-027B	MA_APH	SAMP	R43496	10/14/2011 3:55:00 PM	Charles O`Bryan		
1110367-017B	MA_APH	SAMP	R43496	10/14/2011 4:38:00 PM	Charles O`Bryan		
1110367-019B	MA_APH	SAMP	R43496	10/14/2011 6:05:00 PM	Charles O`Bryan		Over diluted sample. Will re-run at lower dilution. Reporting here to show that sample and duplicate were analyzed.
1110367-019BDUP	MA_APH	SAMP	R43496	10/14/2011 6:48:00 PM	Charles O`Bryan		
1110367-020B	MA_APH	SAMP	R43496	10/14/2011 7:31:00 PM	Charles O`Bryan		
1110367-026B	MA_APH	SAMP	R43496	10/14/2011 11:49:00 PM	Charles O`Bryan		
1109988-007B	MA_APH	SAMP	R43496	10/15/2011 1:58:00 AM	Charles O`Bryan	H	
1110067-012B	MA_APH	SAMP	R43496	10/15/2011 2:41:00 AM	Charles O`Bryan		
1110367-018B	MA_APH	SAMP	R43496	10/15/2011 3:31:00 AM	Charles O`Bryan		
1110367-021B	MA_APH	SAMP	R43496	10/15/2011 5:10:00 AM	Charles O`Bryan		
1110367-024B	MA_APH	SAMP	R43496	10/15/2011 5:56:00 AM	Charles O`Bryan		
1110367-025B	MA_APH	SAMP	R43496	10/15/2011 6:46:00 AM	Charles O`Bryan		
RLVS4 101311 VOA	MA_APH	RLVS	R43496	10/15/2011 7:29:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43496

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850030	BFB3 101311 VOA9	BFB_TUNE	TUNE	\1\DATA\101311	10/14/2011 9:49:	1	R43496		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		57	57		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.5	7.5		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.5	96.5		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	
50	M		25.1	25.1		0	0	0	0	0	0	0%	8	40	0%	
75	M		49.8	49.8		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.9	6.9		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850031	CCV2 101311 VOA9	MA_APH	CCV	\1\DATA\101311	10/14/2011 10:3	1	R43496		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	257.24	257.24		234	0	0	0	0	0	110%	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	250.4	250.4		266	0	0	0	0	0	94%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	416.96	416.96		378	0	0	0	0	0	110%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	92.44	92.44		89.5	0	0	0	0	0	103%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101311\10131128.D Vial: 2
Acq On : 14 Oct 2011 10:33 am Operator: RACHEL HILL
Sample : CCV2 101311 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 17 10:25 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	820480	12.50	ug/m3	-0.01

System Monitoring Compounds
41) 4-Bromofluorobenzene 18.34 95 546660 92.44 ug/m3 0.00
Spiked Amount 89.500 Range 70 - 130 Recovery = 103.28%

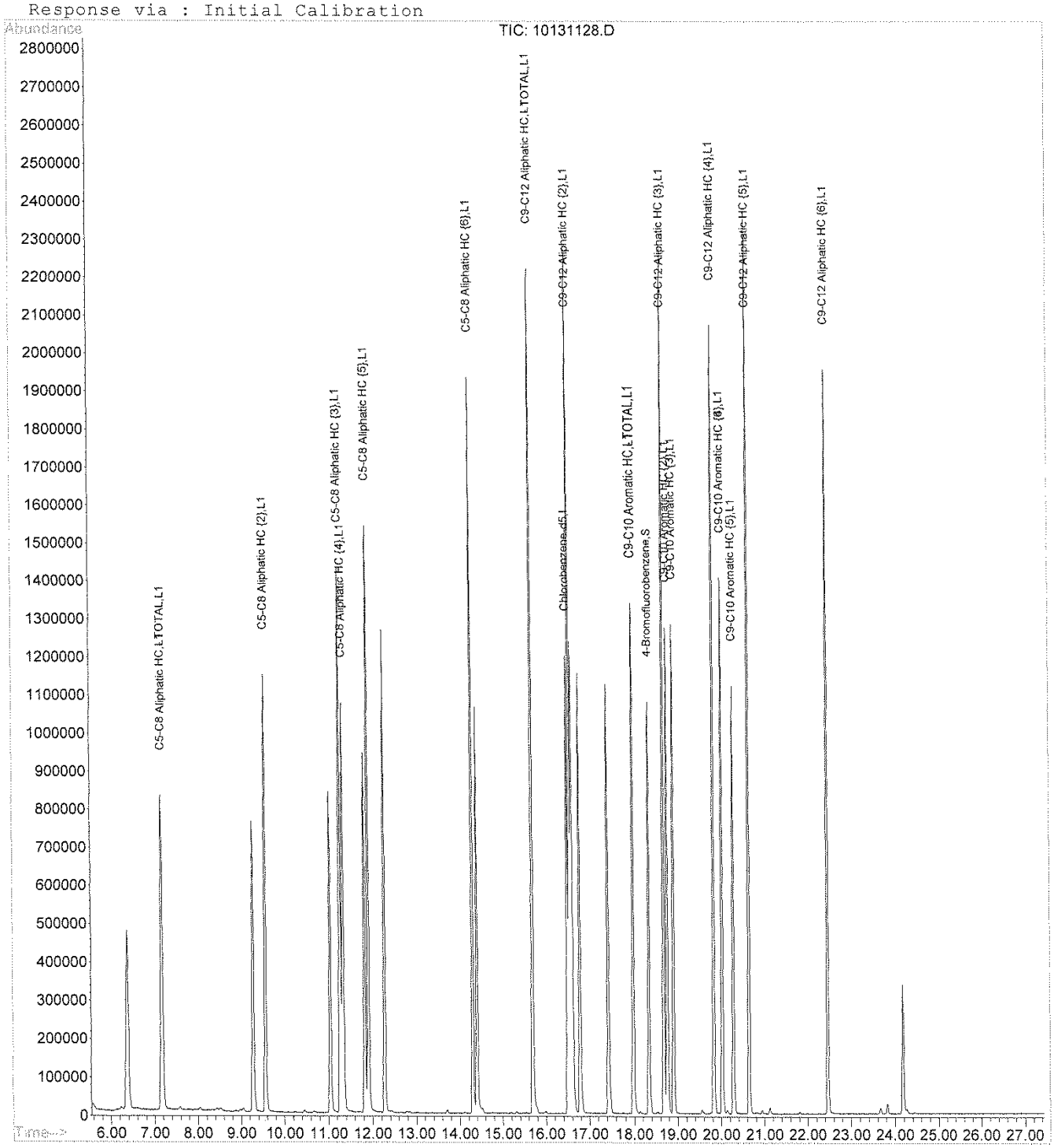
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	2832560	35.02	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2870634	39.42	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	3627398	45.30	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	2727926	37.29	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3466601	45.94	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	4123082	54.06	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	19648201m	257.24	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	5093644	60.68	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	4982811	61.62	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4733998	68.44	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	4607856	65.78	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	4754541	79.00	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	4032606	80.18	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	28205456m	416.96	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	297457	48.47	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	313486	48.57	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	457542	49.49	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	108251	56.43	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	352930	49.06	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	261287	53.80	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1790953m	250.40	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101311\10131128.D Vial: 2
Acq On : 14 Oct 2011 10:33 am Operator: RACHEL HILL
Sample : CCV2 101311 VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 17 10:25 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_111017A **Run No.:** 43516

Analytical Run Date: 10/17/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:**

Column Length:

Run Comments: Liquid Nitrogen ran out in middle of the night, in the middle of the run. New tank was not delivered in time to run RLVS w/in 12hr clock. This is why it is not present.

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB1 101711 VOA9	BFB_TUNE	TUNE	R43516	10/17/2011 11:35:00 AM	Charles O`Bryan		
CCV 10171 VOA9	MA_APH	CCV	R43516	10/17/2011 12:18:00 PM	Charles O`Bryan		
RLVS1 101711 VOA	MA_APH	RLVS	R43516	10/17/2011 1:01:00 PM	Charles O`Bryan		
BLK1 101711 VOA9	MA_APH	MBLK	R43516	10/17/2011 2:00:00 PM	Charles O`Bryan		
1110067-017B	MA_APH	SAMP	R43516	10/17/2011 2:44:00 PM	Charles O`Bryan		
1110067-018B	MA_APH	SAMP	R43516	10/17/2011 3:27:00 PM	Charles O`Bryan		
1110367-001B	MA_APH	SAMP	R43516	10/17/2011 4:10:00 PM	Charles O`Bryan		
1110367-002B	MA_APH	SAMP	R43516	10/17/2011 4:53:00 PM	Charles O`Bryan		
1110367-003B	MA_APH	SAMP	R43516	10/17/2011 5:36:00 PM	Charles O`Bryan		
1110367-003BDUP	MA_APH	DUP	R43516	10/17/2011 6:19:00 PM	Charles O`Bryan		
1110367-007B	MA_APH	SAMP	R43516	10/17/2011 7:10:00 PM	Charles O`Bryan		
1110367-008B	MA_APH	SAMP	R43516	10/17/2011 7:56:00 PM	Charles O`Bryan		
1110367-009B	MA_APH	SAMP	R43516	10/17/2011 9:29:00 PM	Charles O`Bryan		
1110367-010B	MA_APH	SAMP	R43516	10/17/2011 10:15:00 PM	Charles O`Bryan		
1110367-011B	MA_APH	SAMP	R43516	10/17/2011 11:01:00 PM	Charles O`Bryan		
1110367-012B	MA_APH	SAMP	R43516	10/17/2011 11:48:00 PM	Charles O`Bryan		
1110367-013B	MA_APH	SAMP	R43516	10/18/2011 12:35:00 AM	Charles O`Bryan		
1110367-019B	MA_APH	SAMP	R43516	10/18/2011 1:25:00 AM	Charles O`Bryan		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43516

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850576	BFB1 101711 VOA9	BFB_TUNE	TUNE	\1\DATA\101711	10/17/2011 11:3	1	R43516		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
173	M		0	0		0	0	0	0	0	0	0%	0	2	0%	
174	M		56.9	56.9		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.2	7.2		0	0	0	0	0	0	0%	4	9	0%	
176	M		95.4	95.4		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.4	6.4		0	0	0	0	0	0	0%	5	9	0%	
50	M		26.7	26.7		0	0	0	0	0	0	0%	8	40	0%	
75	M		51.2	51.2		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		7.1	7.1		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
850577	CCV 10171 VOA9	MA_APH	CCV	\1\DATA\101711	10/17/2011 12:1	1	R43516		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	260.09	260.09		234	0	0	0	0	0	111%	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	243.33	243.33		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	419.81	419.81		378	0	0	0	0	0	111%	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	92.31	92.31		89.5	0	0	0	0	0	103%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101711\10171103.D
Acq On : 17 Oct 2011 12:18 pm
Sample : CCV 10171 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Oct 17 21:42 2011

Vial: 2
Operator: RACHEL HILL
Inst : GC/MS Ins
Multiplr: 1.00
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	766985	12.50	ug/m3	-0.01
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	510269	92.31	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 103.14%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.17	TIC	2948119	36.45	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.56	TIC	2901996	39.85	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	3676684	45.92	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.34	TIC	2730143	37.32	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	3462151	45.88	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.29	TIC	4146735	54.37	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.17	TIC	19865828m	260.09	ug/m3	
8) C9-C12 Aliphatic HC	15.69	TIC	5157162	61.43	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.56	TIC	5012180	61.98	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	4744989	68.60	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	4635545	66.17	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.64	TIC	4789183	79.58	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.46	TIC	4059272	80.71	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.69	TIC	28398331m	419.81	ug/m3	
15) C9-C10 Aromatic HC	17.97	120	288119	46.95	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	304782	47.22	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	444558	48.09	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.02	120	103274	53.83	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.28	120	346869	48.22	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.02	134	252741	52.04	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.97	TIC	1740343m	243.33	ug/m3	

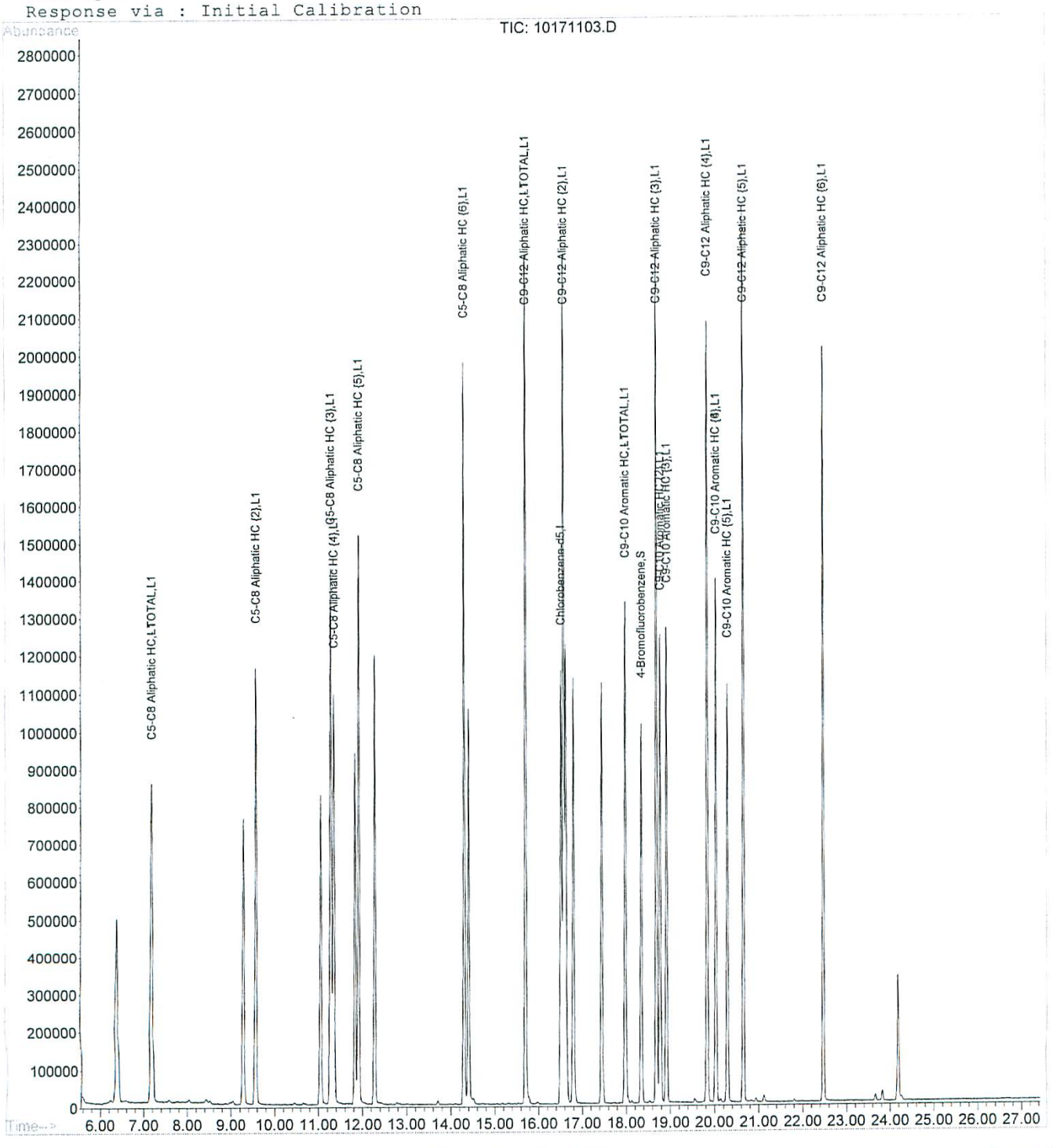
(#) = qualifier out of range (m) = manual integration
10171103.D 101111V9.M Thu Oct 20 11:06:21 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101711\10171103.D
Acq On : 17 Oct 2011 12:18 pm
Sample : CCV 10171 VOA9
Misc : CCV MA_APH
MS Integration Params: rteint.p
Quant Time: Oct 17 21:42 2011

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



Response Factor Report GC/MS Ins

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

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

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

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\092111V9.M (RTE Integrator)
Title : MASS APH
Last Update : Thu Sep 22 10:01:26 2011
Response via : Initial Calibration
Total Cpnds : 41

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

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

092111V9.M Thu Oct 20 11:02:25 2011

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 Thu Oct 20 11:05:24 2011

RTI Laboratories

Run ID: GC-TCD 1_111017A **Run No.:** 43561

Analytical Run Date: 10/17/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

Run Comments: ch rev 10/21/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43561	10/17/2011 11:01:00 AM	Celeste Hoitash		
ccv std 1-2 a	ASTM-D2504	CCV	R43561	10/17/2011 12:10:00 PM	Celeste Hoitash		
lcs	ASTM-D2504	LCS	R43561	10/17/2011 12:43:00 PM	Celeste Hoitash		
crql std 2% a	ASTM-D2504	CRQL	R43561	10/17/2011 1:08:00 PM	Celeste Hoitash		
1110067-001a	ASTM-D2504	SAMP	R43561	10/17/2011 1:28:00 PM	Celeste Hoitash		
1110067-002a	ASTM-D2504	SAMP	R43561	10/17/2011 1:55:00 PM	Celeste Hoitash		
1110067-003a	ASTM-D2504	SAMP	R43561	10/17/2011 2:25:00 PM	Celeste Hoitash		
1110067-004a	ASTM-D2504	SAMP	R43561	10/17/2011 2:45:00 PM	Celeste Hoitash		
1110067-005a	ASTM-D2504	SAMP	R43561	10/17/2011 3:28:00 PM	Celeste Hoitash		
1110067-040a	ASTM-D2504	SAMP	R43561	10/17/2011 3:58:00 PM	Celeste Hoitash		
1110067-041a	ASTM-D2504	SAMP	R43561	10/17/2011 4:19:00 PM	Celeste Hoitash		
1110067-042a	ASTM-D2504	SAMP	R43561	10/17/2011 4:38:00 PM	Celeste Hoitash		
1110067-044a	ASTM-D2504	SAMP	R43561	10/17/2011 5:03:00 PM	Celeste Hoitash		
1110067-045a	ASTM-D2504	SAMP	R43561	10/17/2011 5:22:00 PM	Celeste Hoitash		
1110067-045adup	ASTM-D2504	DUP	R43561	10/17/2011 5:41:00 PM	Celeste Hoitash		
ccv std 1-2 b	ASTM-D2504	CCV	R43561	10/17/2011 7:45:00 PM	Celeste Hoitash		
crql std 2% b	ASTM-D2504	CRQL	R43561	10/17/2011 8:51:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43561

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852682	mblk	ASTM-D2504	MBLK	\TA\101711\1017	10/17/2011 11:0	1	R43561		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
852683	ccv std 1-2 a	ASTM-D2504	CCV	\TA\101711\1017	10/17/2011 12:1	1	R43561		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.459	2.459		2.5	0	0	0.025	0.1	0	98%	85	115	0%	
Carbon Monoxide	A	%	2.377	2.377		2.5	0	0	0.025	0.1	0	95%	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	%	1.969	1.969		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.441	2.441		2.5	0	0	0.025	0.1	0	98%	85	115	0%	
Oxygen	A	%	2.13	2.13		2.5	0	0	0.025	0.1	0	85%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852684	lcs	ASTM-D2504	LCS	\TA\101711\1017	10/17/2011 12:4	1	R43561		0	852683	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.521	2.521		2.5	0	2.459	0.025	0.1	0	101%	70	130	2%	
Carbon Monoxide	A	%	2.422	2.422		2.5	0	2.377	0.025	0.1	0	97%	70	130	2%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.043	2.043		2	0	1.969	0.025	0.5	0	102%	70	130	4%	
Nitrogen	A	%	2.611	2.611		2.5	0	2.441	0.025	0.1	0	104%	70	130	7%	
Oxygen	A	%	2.214	2.214		2.5	0	2.13	0.025	0.1	0	89%	70	130	4%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852695	1110067-045a (Container-01 of 01)	ASTM-D2504	SAMP	\TA\101711\1017	10/17/2011 5:22:	1	R43561		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	10.849	10.849		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
852696	1110067-045adup	ASTM-D2504	DUP	\TA\101711\1017	10/17/2011 5:41:	1	R43561		0	852695	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	4.967	4.967		0	0	4.98	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	%	82.42	82.42		0	0	82.574	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	10.828	10.828		0	0	10.849	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
852697	ccv std 1-2 b	ASTM-D2504	CCV	\TA\101711\1017	10/17/2011 7:45:	1	R43561		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.473	2.473		2.5	0	0	0.025	0.1	0	99%	85	115	0%	
Carbon Monoxide	A	%	2.345	2.345		2.5	0	0	0.025	0.1	0	94%	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	%	1.983	1.983		2	0	0	0.025	0.5	0	99%	85	115	0%	
Nitrogen	A	%	2.64	2.64		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.205	2.205		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
852698	crql std 2% b	ASTM-D2504	CRQL	\TA\101711\1017	10/17/2011 8:51:	1	R43561		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.351	0.351		0.3	0	0	0.025	0.1	0	117%	80	120	0%	
Carbon Monoxide	A	%	0.148	0.148		0.14	0	0	0.025	0.1	0	106%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\101711\10171102.D Vial: 1
Acq On : 17 Oct 2011 12:10 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	2.130	14.8	0	0.03
2	Nitrogen	2.500	2.441	2.4	0	0.02
3	Carbon Monoxide	2.500	2.377	4.9	0	-0.02
4	Methane	2.000	1.969	1.5	0	-0.03
5	Carbon dioxide	2.500	2.459	1.6	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\101711\10171102.D Vial: 1
Acq On : 17 Oct 2011 12:10 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

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

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 14:59:38 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101711\10171102.D Vial: 1
Acq On : 17 Oct 2011 12:10 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 18 11:49 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 :

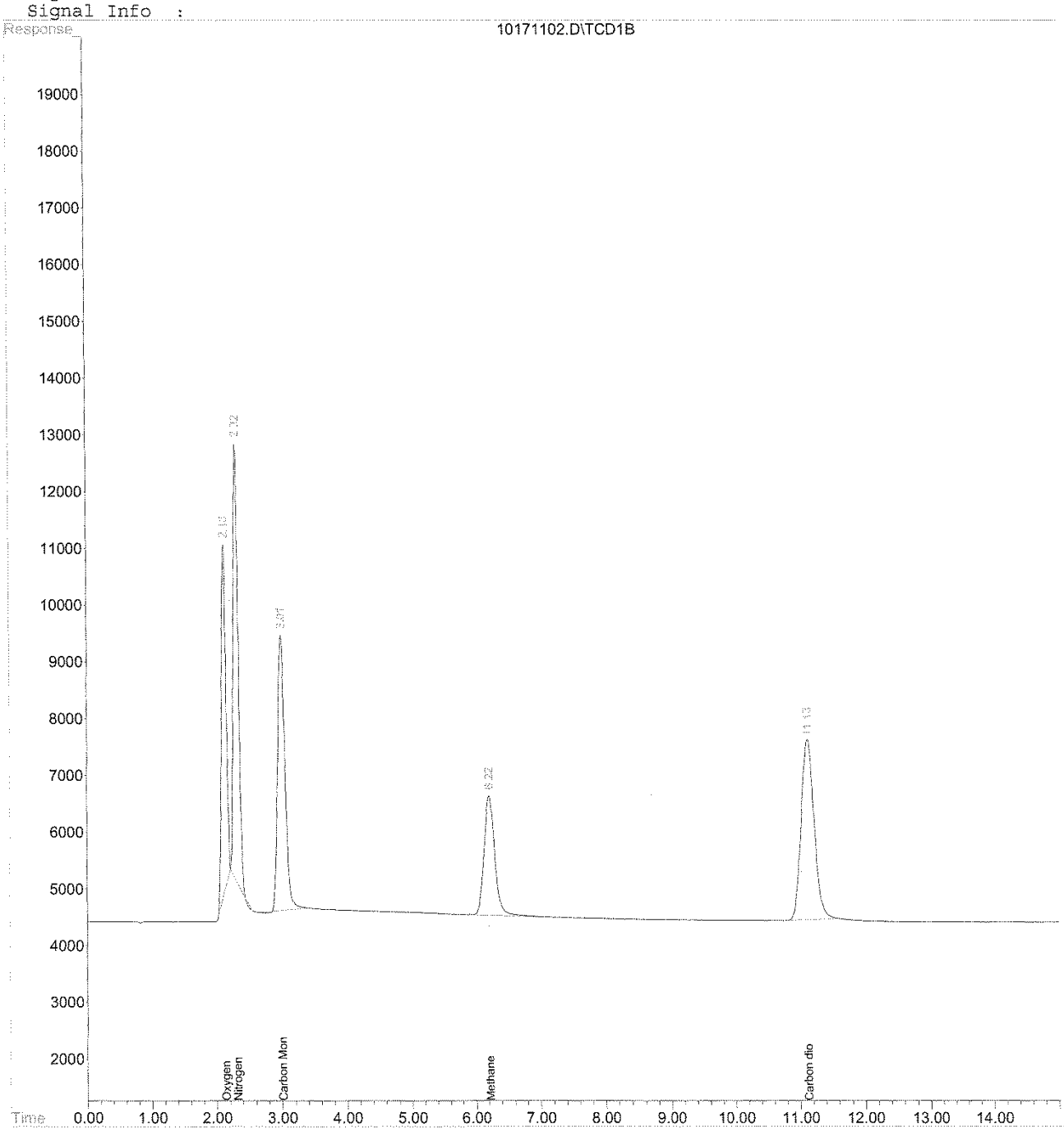
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	304895	2.130 %
2)	Nitrogen	2.32	420473	2.441 %
3)	Carbon Monoxide	3.01	374388	2.377 %
4)	Methane	6.22	253305	1.969 %
5)	Carbon dioxide	11.13f	445315	2.459 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101711\10171102.D Vial: 1
Acq On : 17 Oct 2011 12:10 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 18 11:49 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\101711\10171116.D Vial: 1
Acq On : 17 Oct 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	2.205	11.8	0	0.02
2	Nitrogen	2.500	2.640	-5.6	0	0.00
3	Carbon Monoxide	2.500	2.345	6.2	0	-0.03
4	Methane	2.000	1.983	0.8	0	-0.05
5	Carbon dioxide	2.500	2.473	1.1	0	-0.08

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\101711\10171116.D Vial: 1
Acq On : 17 Oct 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 Oct 20 15:00:39 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101711\10171116.D Vial: 1
Acq On : 17 Oct 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: Oct 18 11:53 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	315677	2.205 %
2)	Nitrogen	2.31	454805	2.640 %
3)	Carbon Monoxide	2.99	369397	2.345 %
4)	Methane	6.20f	255369	1.983 %
5)	Carbon dioxide	11.10f	447944	2.473 %

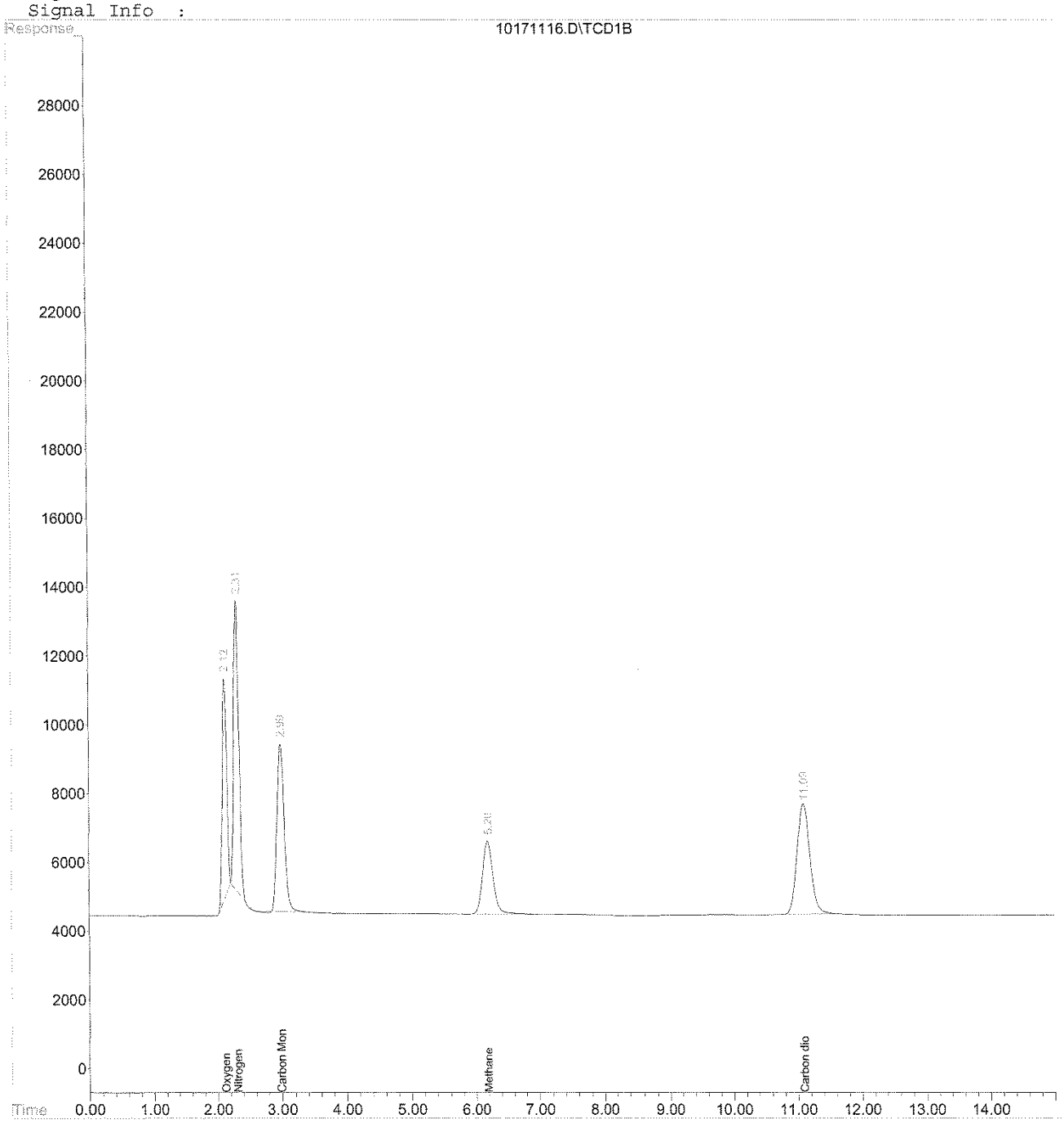
(f)=RT Delta > 1/2 Window (m)=manual int.
10171116.D 030511.M Thu Oct 20 15:00:34 2011 TESTCAL Page 1

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\2\DATA\101711\10171116.D          Vial: 1
Acq On    : 17 Oct 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: Oct 18 11:53 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_111018A **Run No.:** 43562

Analytical Run Date: 10/18/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

Run Comments: ch rev 10/21/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43562	10/18/2011 10:27:00 AM	Celeste Hoitash		
ccv std 1-2 a	ASTM-D2504	CCV	R43562	10/18/2011 11:12:00 AM	Celeste Hoitash		
lcs	ASTM-D2504	LCS	R43562	10/18/2011 11:32:00 AM	Celeste Hoitash		
crql std 2% a	ASTM-D2504	CRQL	R43562	10/18/2011 11:55:00 AM	Celeste Hoitash		
1110067-006a	ASTM-D2504	SAMP	R43562	10/18/2011 12:18:00 PM	Celeste Hoitash		
1110067-007a	ASTM-D2504	SAMP	R43562	10/18/2011 12:42:00 PM	Celeste Hoitash		
1110067-008a	ASTM-D2504	SAMP	R43562	10/18/2011 1:02:00 PM	Celeste Hoitash		
1110067-009a	ASTM-D2504	SAMP	R43562	10/18/2011 1:20:00 PM	Celeste Hoitash		
1110067-010a	ASTM-D2504	SAMP	R43562	10/18/2011 1:47:00 PM	Celeste Hoitash		
1110067-011a	ASTM-D2504	SAMP	R43562	10/18/2011 2:40:00 PM	Celeste Hoitash		
1110067-012a	ASTM-D2504	SAMP	R43562	10/18/2011 3:00:00 PM	Celeste Hoitash		
1110067-013a	ASTM-D2504	SAMP	R43562	10/18/2011 3:24:00 PM	Celeste Hoitash		
1110067-014a	ASTM-D2504	SAMP	R43562	10/18/2011 3:44:00 PM	Celeste Hoitash		
1110067-015a	ASTM-D2504	SAMP	R43562	10/18/2011 4:08:00 PM	Celeste Hoitash		
1110067-015adup	ASTM-D2504	DUP	R43562	10/18/2011 4:36:00 PM	Celeste Hoitash		
ccv std 1-2 b	ASTM-D2504	CCV	R43562	10/18/2011 5:49:00 PM	Celeste Hoitash		
crql std 2% b	ASTM-D2504	CRQL	R43562	10/18/2011 6:12:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43562

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852699	mblk	ASTM-D2504	MBLK	ıTA\101811\1018	10/18/2011 10:2	1	R43562		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
852700	ccv std 1-2 a	ASTM-D2504	CCV	ıTA\101811\1018	10/18/2011 11:1	1	R43562		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.401	2.401		2.5	0	0	0.025	0.1	0	96%	85	115	0%	
Carbon Monoxide	A	%	2.386	2.386		2.5	0	0	0.025	0.1	0	95%	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	%	2.639	2.639		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Oxygen	A	%	2.224	2.224		2.5	0	0	0.025	0.1	0	89%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852701	lcs	ASTM-D2504	LCS	ıTA\101811\1018	10/18/2011 11:3	1	R43562		0	852700	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.427	2.427		2.5	0	2.401	0.025	0.1	0	97%	70	130	1%	
Carbon Monoxide	A	%	2.397	2.397		2.5	0	2.386	0.025	0.1	0	96%	70	130	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	1.942	1.942		2	0	2.003	0.025	0.5	0	97%	70	130	3%	
Nitrogen	A	%	2.628	2.628		2.5	0	2.639	0.025	0.1	0	105%	70	130	0%	
Oxygen	A	%	2.243	2.243		2.5	0	2.224	0.025	0.1	0	90%	70	130	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852712	1110067-015a (Container-01 of 01)	ASTM-D2504	SAMP	\TA\101811\1018	10/18/2011 4:08:	1	R43562		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.332	20.332		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
852713	1110067-015adup	ASTM-D2504	DUP	\TA\101811\1018	10/18/2011 4:36:	1	R43562		0	852712	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.492	0.492		0	0	0.494	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.277	78.277		0	0	77.866	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	20.113	20.113		0	0	20.332	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
852714	ccv std 1-2 b	ASTM-D2504	CCV	\TA\101811\1018	10/18/2011 5:49:	1	R43562		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.438	2.438		2.5	0	0	0.025	0.1	0	98%	85	115	0%	
Carbon Monoxide	A	%	2.378	2.378		2.5	0	0	0.025	0.1	0	95%	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	%	2.02	2.02		2	0	0	0.025	0.5	0	101%	85	115	0%	
Nitrogen	A	%	2.696	2.696		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Oxygen	A	%	2.276	2.276		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
852715	crql std 2% b	ASTM-D2504	CRQL	\TA\101811\1018	10/18/2011 6:12:	1	R43562		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.338	0.338		0.3	0	0	0.025	0.1	0	113%	80	120	0%	
Carbon Monoxide	A	%	0.142	0.142		0.14	0	0	0.025	0.1	0	101%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\101811\10181102.D Vial: 1
Acq On : 18 Oct 2011 11:12 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	2.224	11.0	0	0.03
2	Nitrogen	2.500	2.639	-5.6	0	0.01
3	Carbon Monoxide	2.500	2.386	4.6	0	-0.02
4	Methane	2.000	2.003	-0.2	0	-0.04
5	Carbon dioxide	2.500	2.401	4.0	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\101811\10181102.D Vial: 1
Acq On : 18 Oct 2011 11:12 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

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

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 15:02:38 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101811\10181102.D Vial: 1
Acq On : 18 Oct 2011 11:12 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 18 11:38 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	318513	2.224 %
2)	Nitrogen	2.31	454587	2.639 %
3)	Carbon Monoxide	3.00	375813	2.386 %
4)	Methane	6.21	258063	2.003 %
5)	Carbon dioxide	11.12f	434437	2.401 %

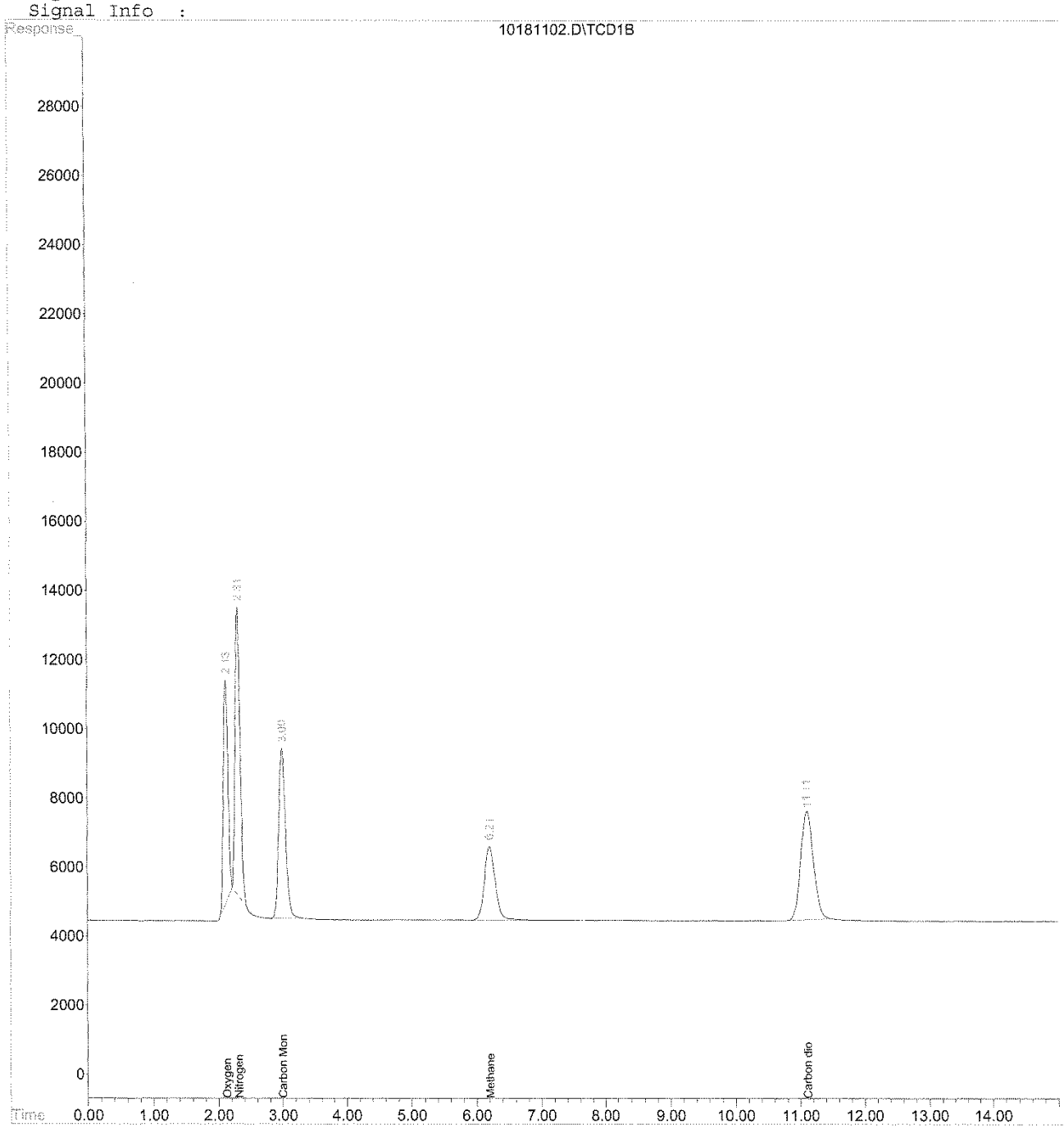
(f)=RT Delta > 1/2 Window (m)=manual int.
10181102.D 030511.M Thu Oct 20 15:02:28 2011 TESTCAL Page 1

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\2\DATA\101811\10181102.D          Vial: 1
Acq On    : 18 Oct 2011  11:12 am                   Operator:
Sample    : ccv std 1-2 a                           Inst    : GC/TCD
Misc      : CCV  ASTM-D2504                         Multiplr: 1.00
IntFile   : EVENTS.E
Quant Time: Oct 18 11:38 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\101811\10181116.D Vial: 1
Acq On : 18 Oct 2011 5:49 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	2.276	9.0	0	0.03
2	Nitrogen	2.500	2.696	-7.8	0	0.01
3	Carbon Monoxide	2.500	2.378	4.9	0	-0.02
4	Methane	2.000	2.020	-1.0	0	-0.04
5	Carbon dioxide	2.500	2.438	2.5	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\101811\10181116.D Vial: 1
Acq On : 18 Oct 2011 5:49 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

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

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 15:03:38 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101811\10181116.D Vial: 1
Acq On : 18 Oct 2011 5:49 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 18 18:24 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	326014	2.276 %
2)	Nitrogen	2.31	464475	2.696 %
3)	Carbon Monoxide	3.00	374511	2.378 %
4)	Methane	6.21	260541	2.020 %
5)	Carbon dioxide	11.11f	441451	2.438 %

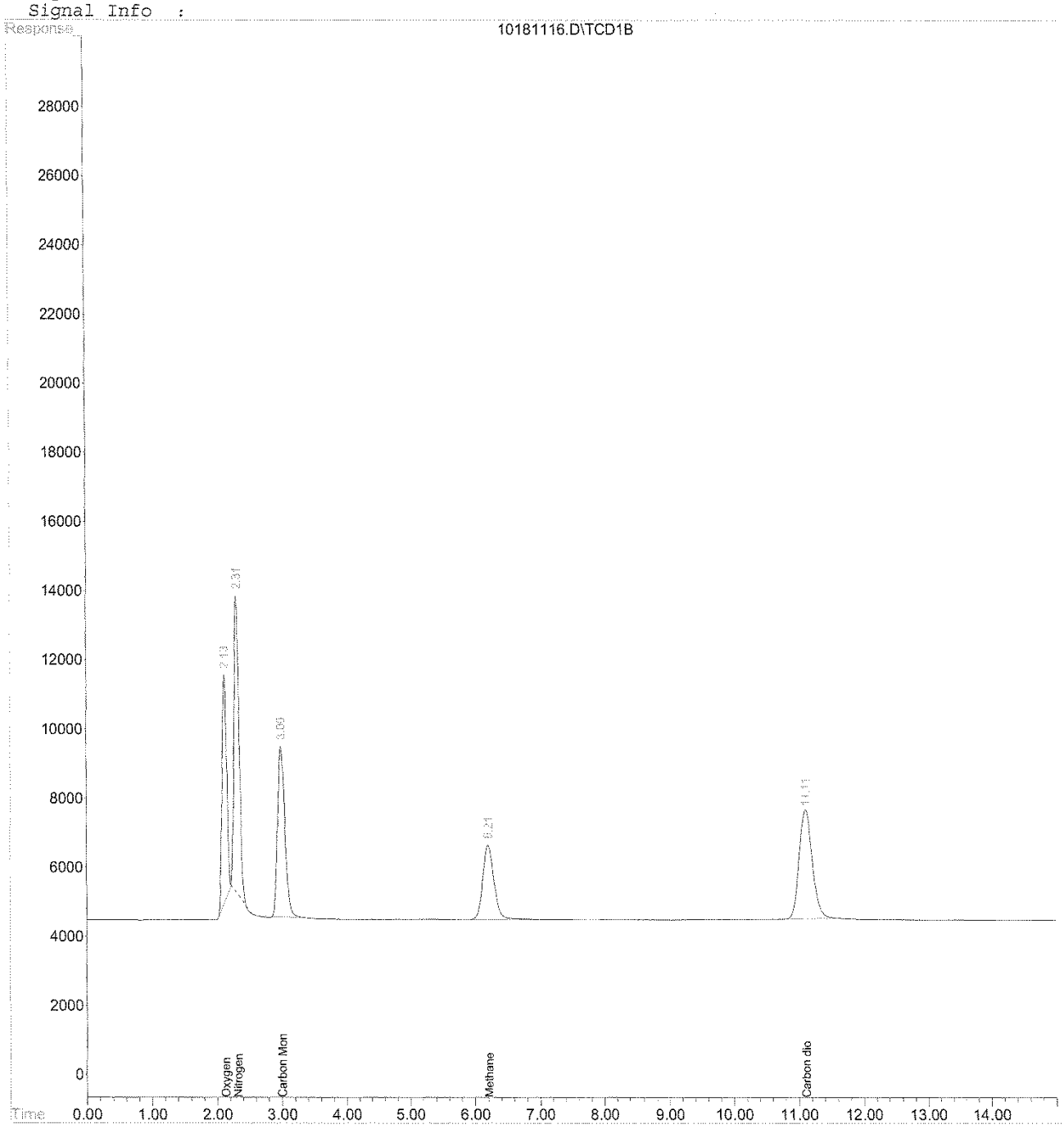
(f)=RT Delta > 1/2 Window (m)=manual int.
10181116.D 030511.M Thu Oct 20 15:03:34 2011 TESTCAL Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101811\10181116.D Vial: 1
Acq On : 18 Oct 2011 5:49 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 18 18:24 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_111019A **Run No.:** 43563

Analytical Run Date: 10/19/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

Run Comments: ch rev 10/21/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43563	10/19/2011 12:26:00 PM	Celeste Hoitash		
ccv std 1-2 a	ASTM-D2504	CCV	R43563	10/19/2011 2:20:00 PM	Celeste Hoitash		
lcs	ASTM-D2504	LCS	R43563	10/19/2011 2:59:00 PM	Celeste Hoitash		
crql std 2% a	ASTM-D2504	CRQL	R43563	10/19/2011 3:35:00 PM	Celeste Hoitash		
1110067-016a	ASTM-D2504	SAMP	R43563	10/19/2011 3:53:00 PM	Celeste Hoitash		
1110067-017a	ASTM-D2504	SAMP	R43563	10/19/2011 4:12:00 PM	Celeste Hoitash		
1110067-018a	ASTM-D2504	SAMP	R43563	10/19/2011 4:32:00 PM	Celeste Hoitash		
1110067-019a	ASTM-D2504	SAMP	R43563	10/19/2011 5:04:00 PM	Celeste Hoitash		
1110067-020a	ASTM-D2504	SAMP	R43563	10/19/2011 5:33:00 PM	Celeste Hoitash		
1110067-021a	ASTM-D2504	SAMP	R43563	10/19/2011 5:57:00 PM	Celeste Hoitash		
1110067-022a	ASTM-D2504	SAMP	R43563	10/19/2011 6:21:00 PM	Celeste Hoitash		
1110067-022adup	ASTM-D2504	DUP	R43563	10/19/2011 6:40:00 PM	Celeste Hoitash		
ccv std 1-2 b	ASTM-D2504	CCV	R43563	10/19/2011 7:36:00 PM	Celeste Hoitash		
crql std 2% b	ASTM-D2504	CRQL	R43563	10/19/2011 8:01:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43563

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852792	mblk	ASTM-D2504	MBLK	\TA\101911\1019	10/19/2011 12:2	1	R43563		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
852793	ccv std 1-2 a	ASTM-D2504	CCV	\TA\101911\1019	10/19/2011 2:20:	1	R43563		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.315	2.315		2.5	0	0	0.025	0.1	0	93%	85	115	0%	
Carbon Monoxide	A	%	2.346	2.346		2.5	0	0	0.025	0.1	0	94%	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	%	1.957	1.957		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.618	2.618		2.5	0	0	0.025	0.1	0	105%	85	115	0%	
Oxygen	A	%	2.282	2.282		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
852794	lcs	ASTM-D2504	LCS	\TA\101911\1019	10/19/2011 2:59:	1	R43563		0	852793	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.399	2.399		2.5	0	2.315	0.025	0.1	0	96%	70	130	4%	
Carbon Monoxide	A	%	2.399	2.399		2.5	0	2.346	0.025	0.1	0	96%	70	130	2%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	2.017	2.017		2	0	1.957	0.025	0.5	0	101%	70	130	3%	
Nitrogen	A	%	2.844	2.844		2.5	0	2.618	0.025	0.1	0	114%	70	130	8%	
Oxygen	A	%	2.356	2.356		2.5	0	2.282	0.025	0.1	0	94%	70	130	3%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852803	1110067-022adup	ASTM-D2504	DUP	\TA\101911\1019	10/19/2011 6:40:	1	R43563		0	852802	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.451	0.451		0	0	0.452	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.448	78.448		0	0	79.03	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	18.107	18.107		0	0	18.267	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
852804	ccv std 1-2 b	ASTM-D2504	CCV	\TA\101911\1019	10/19/2011 7:36:	1	R43563		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.336	2.336		2.5	0	0	0.025	0.1	0	93%	85	115	0%	
Carbon Monoxide	A	%	2.355	2.355		2.5	0	0	0.025	0.1	0	94%	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	%	1.95	1.95		2	0	0	0.025	0.5	0	98%	85	115	0%	
Nitrogen	A	%	2.808	2.808		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	%	2.318	2.318		2.5	0	0	0.025	0.1	0	93%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852805	crql std 2% b	ASTM-D2504	CRQL	\TA\101911\1019	10/19/2011 8:01:	1	R43563		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.341	0.341		0.3	0	0	0.025	0.1	0	114%	80	120	0%	
Carbon Monoxide	A	%	0.149	0.149		0.14	0	0	0.025	0.1	0	106%	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	%	0.105	0.105		0.09	0	0	0.025	0.5	0	117%	80	120	0%	
Nitrogen	A	%	1.642	1.642		1.39	0	0	0.025	0.1	0	118%	80	120	0%	
Oxygen	A	%	0.094	0.094		0.08	0	0	0.025	0.1	0	118%	80	120	0%	

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\101911\10191102.D          Vial: 1
Acq On    : 19 Oct 2011   2:20 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	2.282	8.7	0	0.03
2	Nitrogen	2.500	2.618	-4.7	0	0.01
3	Carbon Monoxide	2.500	2.346	6.2	0	-0.02
4	Methane	2.000	1.957	2.1	0	-0.04
5	Carbon dioxide	2.500	2.315	7.4	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\101911\10191102.D          Vial: 1
Acq On    : 19 Oct 2011   2:20 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 Oct 20 20:57:15 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101911\10191102.D Vial: 1
Acq On : 19 Oct 2011 2:20 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 19 13:56 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 :

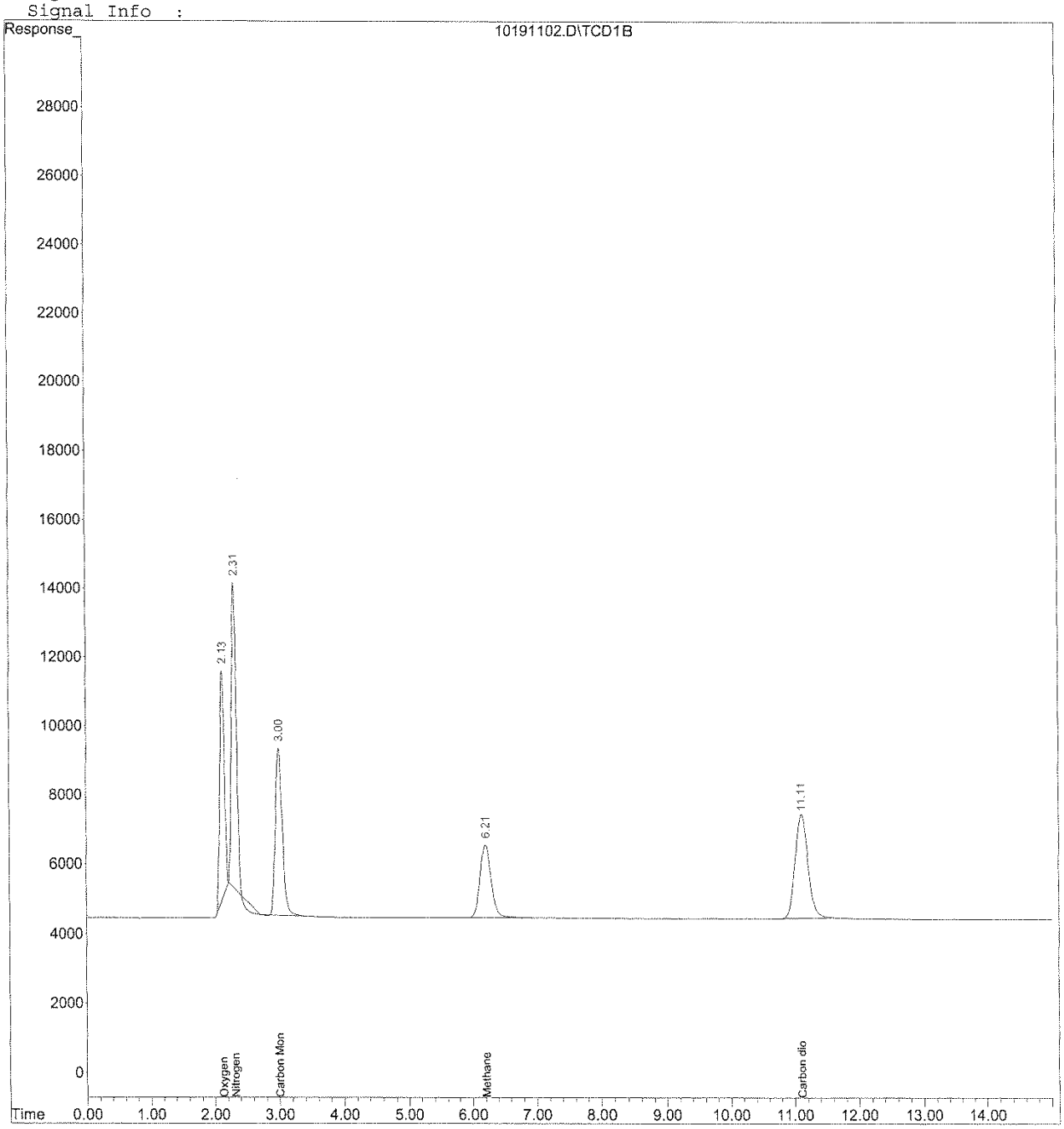
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	326885	2.282 %
2)	Nitrogen	2.31	451002	2.618 %
3)	Carbon Monoxide	3.00	369444	2.346 %
4)	Methane	6.21	251714	1.957 %
5)	Carbon dioxide	11.11f	418425	2.315 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101911\10191102.D Vial: 1
Acq On : 19 Oct 2011 2:20 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 19 13:56 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\101911\10191113.D Vial: 1
Acq On : 19 Oct 2011 7:36 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	2.318	7.3	0	0.03
2	Nitrogen	2.500	2.808	-12.3	0	0.01
3	Carbon Monoxide	2.500	2.355	5.8	0	-0.03
4	Methane	2.000	1.950	2.5	0	-0.04
5	Carbon dioxide	2.500	2.336	6.6	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\101911\10191113.D Vial: 1
Acq On : 19 Oct 2011 7:36 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 Oct 20 20:58:18 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101911\10191113.D Vial: 1
Acq On : 19 Oct 2011 7:36 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 20 17:14 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	332045	2.318 %
2)	Nitrogen	2.31	483774	2.808 %
3)	Carbon Monoxide	3.00	370983	2.355 %
4)	Methane	6.21	250767	1.950 %
5)	Carbon dioxide	11.11f	422415	2.336 %

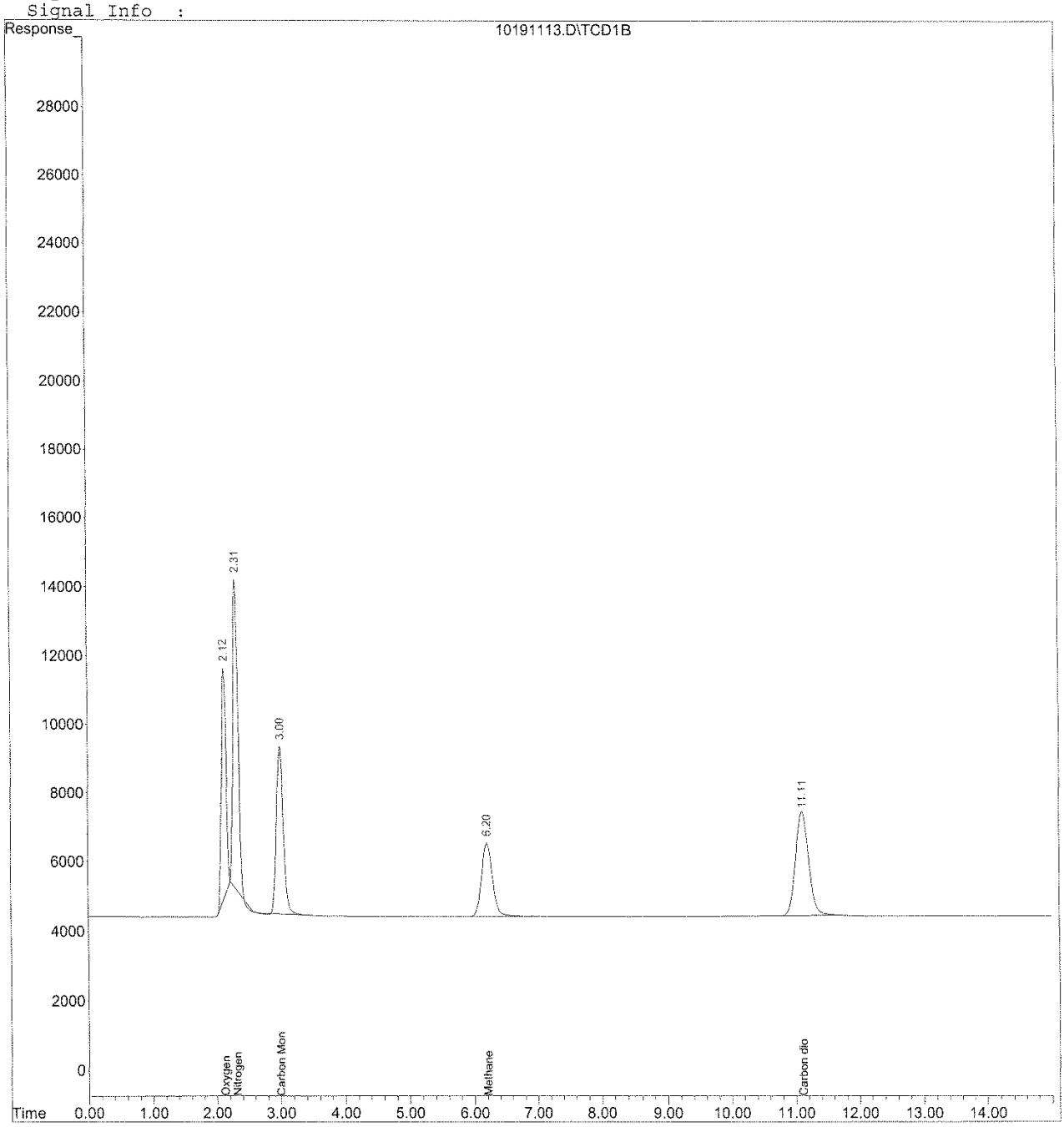
(f)=RT Delta > 1/2 Window (m)=manual int.
10191113.D 030511.M Thu Oct 20 20:58:24 2011 TESTCAL Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\101911\10191113.D Vial: 1
Acq On : 19 Oct 2011 7:36 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 20 17:14 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_111020A **Run No.:** 43564

Analytical Run Date: 10/20/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

Run Comments: ch rev 10/21/11

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R43564	10/20/2011 10:31:00 AM	Celeste Hoitash		
ccv std 1-2 a	ASTM-D2504	CCV	R43564	10/20/2011 11:54:00 AM	Celeste Hoitash		
lcs	ASTM-D2504	LCS	R43564	10/20/2011 12:21:00 PM	Celeste Hoitash		
crql std 2% a	ASTM-D2504	CRQL	R43564	10/20/2011 12:45:00 PM	Celeste Hoitash		
1110067-023a	ASTM-D2504	SAMP	R43564	10/20/2011 1:10:00 PM	Celeste Hoitash		
1110067-024a	ASTM-D2504	SAMP	R43564	10/20/2011 1:37:00 PM	Celeste Hoitash		
1110067-025a	ASTM-D2504	SAMP	R43564	10/20/2011 2:17:00 PM	Celeste Hoitash		
1110067-026a	ASTM-D2504	SAMP	R43564	10/20/2011 3:03:00 PM	Celeste Hoitash		
1110067-027a	ASTM-D2504	SAMP	R43564	10/20/2011 3:23:00 PM	Celeste Hoitash		
1110067-028a	ASTM-D2504	SAMP	R43564	10/20/2011 3:48:00 PM	Celeste Hoitash		
1110067-029a	ASTM-D2504	SAMP	R43564	10/20/2011 4:18:00 PM	Celeste Hoitash		
1110067-030a	ASTM-D2504	SAMP	R43564	10/20/2011 4:41:00 PM	Celeste Hoitash		
1110067-031a	ASTM-D2504	SAMP	R43564	10/20/2011 5:04:00 PM	Celeste Hoitash		
1110067-032a	ASTM-D2504	SAMP	R43564	10/20/2011 5:39:00 PM	Celeste Hoitash		
1110067-032adup	ASTM-D2504	DUP	R43564	10/20/2011 6:03:00 PM	Celeste Hoitash		
ccv std 1-2 b	ASTM-D2504	CCV	R43564	10/20/2011 6:31:00 PM	Celeste Hoitash		
1110067-033a	ASTM-D2504	SAMP	R43564	10/20/2011 6:50:00 PM	Celeste Hoitash		
1110067-034a	ASTM-D2504	SAMP	R43564	10/20/2011 7:14:00 PM	Celeste Hoitash		
1110067-035a	ASTM-D2504	SAMP	R43564	10/20/2011 7:42:00 PM	Celeste Hoitash		
1110067-036a	ASTM-D2504	SAMP	R43564	10/20/2011 8:00:00 PM	Celeste Hoitash		
1110067-037a	ASTM-D2504	SAMP	R43564	10/20/2011 8:20:00 PM	Celeste Hoitash		
1110067-038a	ASTM-D2504	SAMP	R43564	10/20/2011 8:39:00 PM	Celeste Hoitash		
1110067-039a	ASTM-D2504	SAMP	R43564	10/20/2011 8:57:00 PM	Celeste Hoitash		
ccv std 1-2 c	ASTM-D2504	CCV	R43564	10/20/2011 9:49:00 PM	Celeste Hoitash		
crql std 2% c	ASTM-D2504	CRQL	R43564	10/20/2011 10:13:00 PM	Celeste Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

21-Oct-11

RunNo 43564

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852806	mblk	ASTM-D2504	MBLK	\TA\102011\1020	10/20/2011 10:3	1	R43564		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
852807	ccv std 1-2 a	ASTM-D2504	CCV	\TA\102011\1020	10/20/2011 11:5	1	R43564		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.191	2.191		2.5	0	0	0.025	0.1	0	88%	85	115	0%	
Carbon Monoxide	A	%	2.244	2.244		2.5	0	0	0.025	0.1	0	90%	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	%	1.9	1.9		2	0	0	0.025	0.5	0	95%	85	115	0%	
Nitrogen	A	%	2.839	2.839		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.287	2.287		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
852808	lcs	ASTM-D2504	LCS	\TA\102011\1020	10/20/2011 12:2	1	R43564		0	852807	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.147	2.147		2.5	0	2.191	0.025	0.1	0	86%	70	130	2%	
Carbon Monoxide	A	%	2.221	2.221		2.5	0	2.244	0.025	0.1	0	89%	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	%	1.86	1.86		2	0	1.9	0.025	0.5	0	93%	70	130	2%	
Nitrogen	A	%	2.784	2.784		2.5	0	2.839	0.025	0.1	0	111%	70	130	2%	
Oxygen	A	%	2.241	2.241		2.5	0	2.287	0.025	0.1	0	90%	70	130	2%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852819	1110067-032a (Container-01 of 01)	ASTM-D2504	SAMP	\TA\102011\1020	10/20/2011 5:39:	1	R43564		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	19.838	19.838		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
852820	1110067-032adup	ASTM-D2504	DUP	\TA\102011\1020	10/20/2011 6:03:	1	R43564		0	852819	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.184	0.184		0	0	0.185	0.025	0.1	0	0%	0	0	1%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	77.792	77.792		0	0	78.025	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	19.776	19.776		0	0	19.838	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
852821	ccv std 1-2 b	ASTM-D2504	CCV	\TA\102011\1020	10/20/2011 6:31:	1	R43564		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.138	2.138		2.5	0	0	0.025	0.1	0	86%	85	115	0%	
Carbon Monoxide	A	%	2.238	2.238		2.5	0	0	0.025	0.1	0	90%	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	%	2.829	2.829		2.5	0	0	0.025	0.1	0	113%	85	115	0%	
Oxygen	A	%	2.302	2.302		2.5	0	0	0.025	0.1	0	92%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852822	1110067-033a (Container-01 of 01)	ASTM-D2504	SAMP	\TA\102011\1020	10/20/2011 6:50:	1	R43564		0	0	

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

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
852827	1110067-038a (Container-01 of 01)	ASTM-D2504	SAMP	\TA\102011\1020	10/20/2011 8:39:	1	R43564		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.839	0.839		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	%	79.643	79.643		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	16.901	16.901		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
852828	1110067-039a (Container-01 of 01)	ASTM-D2504	SAMP	\TA\102011\1020	10/20/2011 8:57:	1	R43564		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.338	0.338		0	0	0	0.025	0.1	0	0%	0	0	0%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.75	78.75		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	18.131	18.131		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
852829	ccv std 1-2 c	ASTM-D2504	CCV	\TA\102011\1020	10/20/2011 9:49:	1	R43564		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.223	2.223		2.5	0	0	0.025	0.1	0	89%	85	115	0%	
Carbon Monoxide	A	%	2.144	2.144		2.5	0	0	0.025	0.1	0	86%	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	%	1.801	1.801		2	0	0	0.025	0.5	0	90%	85	115	0%	
Nitrogen	A	%	2.839	2.839		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.2	2.2		2.5	0	0	0.025	0.1	0	88%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\102011\10201102.D Vial: 1
Acq On : 20 Oct 2011 11:54 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	2.287	8.5	0	0.02
2	Nitrogen	2.500	2.839	-13.6	0	0.01
3	Carbon Monoxide	2.500	2.244	10.2	0	-0.03
4	Methane	2.000	1.900	5.0	0	-0.04
5	Carbon dioxide	2.500	2.191	12.4	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\102011\10201102.D Vial: 1
Acq On : 20 Oct 2011 11:54 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

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

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 21:18:28 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\102011\10201102.D Vial: 1
Acq On : 20 Oct 2011 11:54 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 20 11:19 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	327498	2.287 %
2)	Nitrogen	2.31	489085	2.839 %
3)	Carbon Monoxide	3.00	353477	2.244 %
4)	Methane	6.20	243728	1.900 %
5)	Carbon dioxide	11.11f	395472	2.191 %

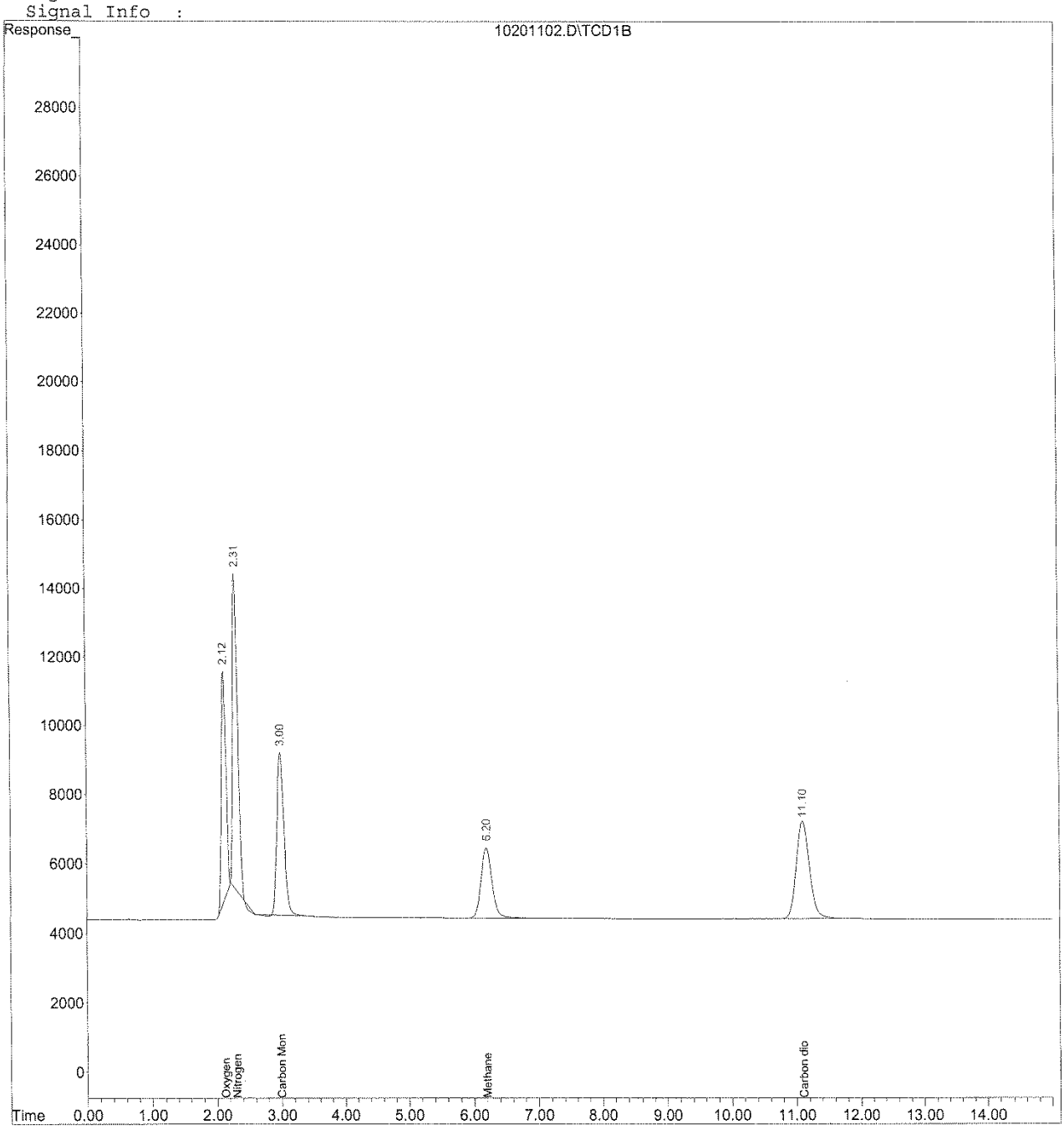
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\102011\10201102.D Vial: 1
Acq On : 20 Oct 2011 11:54 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 20 11:19 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\102011\10201116.D          Vial: 1
Acq On    : 20 Oct 2011   6:31 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	2.302	7.9	0	0.03
2	Nitrogen	2.500	2.829	-13.2	0	0.01
3	Carbon Monoxide	2.500	2.238	10.5	0	-0.03
4	Methane	2.000	1.795	10.3	0	-0.04
5	Carbon dioxide	2.500	2.138	14.5	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\102011\10201116.D          Vial: 1
Acq On    : 20 Oct 2011   6:31 pm                    Operator:
Sample    : ccv std 1-2 b                            Inst     : GC/TCD
Misc      : CCV  ASTM-D2504                          Multiplr: 1.00
IntFile   : EVENTS.E

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

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

Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 21:19:31 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\102011\10201116.D Vial: 1
Acq On : 20 Oct 2011 6:31 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 20 18:59 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	329794	2.302 %
2)	Nitrogen	2.31	487428	2.829 %
3)	Carbon Monoxide	3.00	352527	2.238 %
4)	Methane	6.21	229331	1.795 %
5)	Carbon dioxide	11.11f	385615	2.138 %

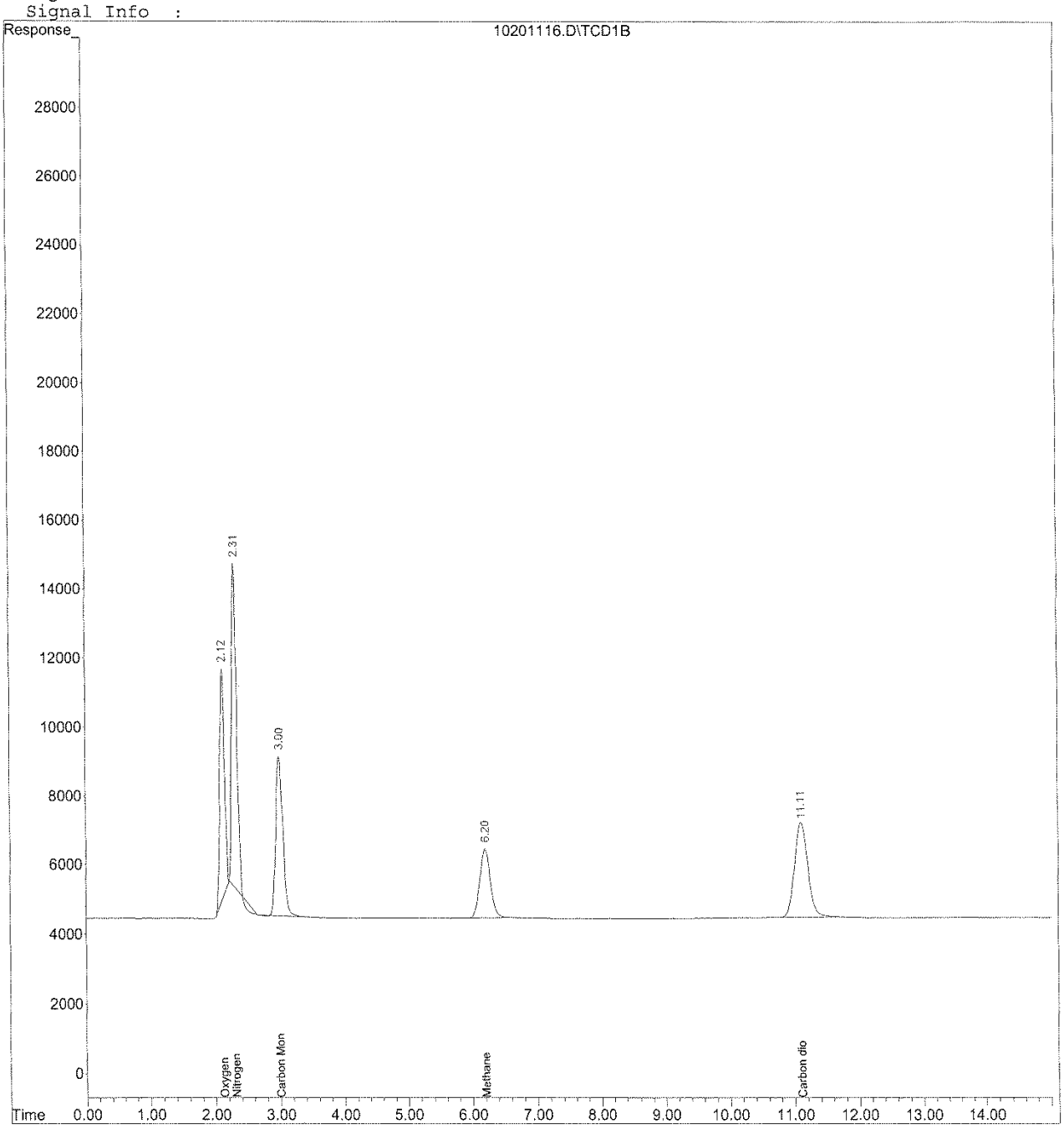
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\102011\10201116.D Vial: 1
Acq On : 20 Oct 2011 6:31 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 20 18:59 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\102011\10201124.D Vial: 1
Acq On : 20 Oct 2011 9:49 pm Operator:
Sample : ccv std 1-2 c 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	2.200	12.0	0	0.03
2	Nitrogen	2.500	2.839	-13.6	0	0.01
3	Carbon Monoxide	2.500	2.144	14.2	0	-0.03
4	Methane	2.000	1.801	10.0	0	-0.04
5	Carbon dioxide	2.500	2.223	11.1	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\102011\10201124.D Vial: 1
Acq On : 20 Oct 2011 9:49 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E

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

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

	Compound	Amount	Calc.	%Dev	Area%	Dev(Min)

(#) = Out of Range SPCC's out = 0 CCC's out = 0
03051113.D 030511.M Thu Oct 20 21:20:07 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\102011\10201124.D Vial: 1
Acq On : 20 Oct 2011 9:49 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Oct 20 21:11 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	315005	2.200 %
2)	Nitrogen	2.31	489007	2.839 %
3)	Carbon Monoxide	3.00	337614	2.144 %
4)	Methane	6.21	230105	1.801 %
5)	Carbon dioxide	11.11f	401417	2.223 %

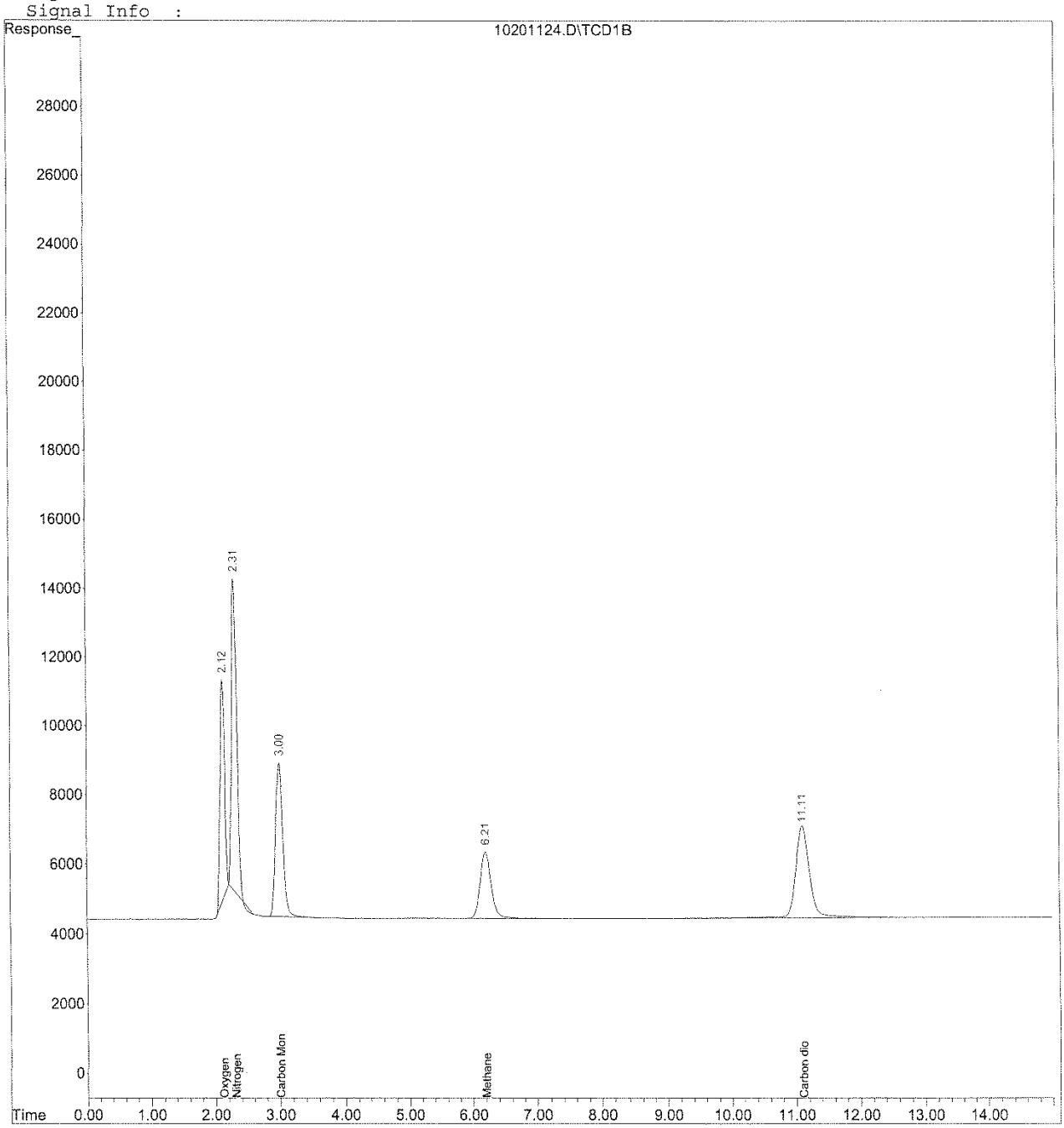
(f)=RT Delta > 1/2 Window (m)=manual int.
10201124.D 030511.M Thu Oct 20 21:20:16 2011 TESTCAL Page 1

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\102011\10201124.D Vial: 1
Acq On : 20 Oct 2011 9:49 pm Operator:
Sample : ccv std 1-2 c Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Oct 20 21:11 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