RTI Laboratories, Inc.

Date: *21-Oct.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705-SVO16
Prime Contract: W912DY-10-D0014
Task Order: 02
Lab Order: 1107914

CASE NARRATIVE

SAMPLE RECEIPT:
Samples were received at the RTI Laboratory, Livonia, MI via commercial delivery on 7/28/2011. Samples were received in good condition. The sample set consisted of 34 air samples.

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

The following samples were subcontracted to ALS Environmental, Salt Lake City, UT for:

1107914-001	VA0417	TO-15	1107914-029	VA9-037	TO-15
1107914-002	VA0418	TO-15	1107914-030	VA9038	TO-15
1107914-003	VA0419	TO-15	1107914-031	VA9039	TO-15
1107914-004	VA0420	TO-15	1107914-032	VA9040	TO-15
1107914-005	VA0426	TO-15	1107914-033	VA9041	TO-15
1107914-006	VA0427	TO-15	1107914-034	VA9042	TO-15
1107914-007	VA0428	TO-15			
1107914-008	VA0429	TO-15			
1107914-009	VA0431	TO-15			
1107914-010	VA0451	TO-15			
1107914-011	VA0453	TO-15			
1107914-012	VA0561	TO-15			
1107914-013	VA0562	TO-15			
1107914-014	VA0563	TO-15			
1107914-015	VA0564	TO-15			
1107914-016	VA0565	TO-15			
1107914-017	VA0566	TO-15			
1107914-018	VA0567	TO-15			
1107914-019	VA0568	TO-15			
1107914-020	VA0569	TO-15			
1107914-021	VA0570	TO-15			
1107914-022	VA0571	TO-15			
1107914-023	VA0572	TO-15			
1107914-024	VA8033-TB	TO-15			
1107914-025	VA9032	TO-15			
1107914-026	VA9033	TO-15			
1107914-027	VA9035	TO-15			
1107914-028	VA9036	TO-15			

Results from ALS have been sent as a separate file.

RTI Laboratories, Inc.

Date: *21-Oct.-11*

CLIENT: Shaw Environmental & Infrastructure, Inc.
Project: Kirtland AFB
CO#: 501
Tracking #: 140705-036A
Project No.: 140705-SVO16
Prime Contract: W912DY-10-D0014
Task Order: 02
Lab Order: 1107914

CASE NARRATIVE

QUALITY CONTROL:

Air-Phase Petroleum Hydrocarbons Analyses:

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

Surrogate recoveries were within established control limits.

Fixed Gases (Noncondensable Gases/Light Hydrocarbons) Analyses:

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

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

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

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

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

Date: 10/21/2011

1107914

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV016
Page 1 of 4

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

Samples Shipment Date: 22 JUL 2011
Lab Destination: RTI Laboratories
Lab Contact: Mike Trochan
Project Contact: Pamela Moss
Carrier/Waybill No: UPS/2123121076

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

Report To: Pamela Moss
7684 Technology Way, Suite 300
Denver CO 80237

Special Instructions:

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

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

1. Relinquished By (Signature/Affiliation): [signature] Date: 7/22/11 Time: 1400
2. Relinquished By (Signature/Affiliation): Date: Time:
3. Relinquished By (Signature/Affiliation): Date: Time:

1. Received By (Signature/Affiliation): Christe Conrad Date: 7/28/11 Time: 1200
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	Flt	CID	Condition On Receipt
	VA0117	SVMW-12-150-05-VA0117-RE-0	19 JUL 2011	9:44	1 L Teflar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
1	VA0118	SVMW-12-150-05-VA0118-RE-0	19 JUL 2011	9:44	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		589
	VA0119	SVMW-12-150-05-VA0119-RE-0	19 JUL 2011	9:06	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		572
2	VA0118	SVMW-12-150-05-VA0118-RE-0	19 JUL 2011	9:06	1 L Teflar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
	VA0119	SVMW-12-150-05-VA0119-RE-0	19 JUL 2011	9:28	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO-15			N		686
3	VA0119	SVMW-12-150-05-VA0119-RE-0	19 JUL 2011	9:28	1 L Teflar Bag	1	None Required	Fixed Gases by ASTM D2504			N		
	VA0120	SVMW-12-150-05-VA0120-RE-0	19 JUL 2011	9:54	1 L BOTTLEVAC	1	None Required	Air Phase Petroleum Hydrocarbons by			N		591
4													

1107914

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No 140705-SV016

Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units Fit	CID	Condition On Receipt
						MA DEP_VOCs / TPH by TO 15				
VA0025	SVMW 12 (50) G5 VA0025 REG	19 AB 2011	9 54	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0026	SVMW 14 (50) G5 VA0026 REG	20 AB 2011	15 39	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		39A
5 VA0026	SVMW 14 (50) G5 VA0026 REG	20 AB 2011	15 39	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0027	SVMW 14 (250) G5 VA0027 REG	20 AB 2011	16 09	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		594
6 VA0027	SVMW 14 (250) G5 VA0027 REG	20 AB 2011	16 09	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0028	SVMW 14 (50) G5 VA0028 REG	21 AB 2011	8 34	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		607
7 VA0028	SVMW 14 (50) G5 VA0028 REG	21 AB 2011	8 34	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0029	SVMW 16 (50) G5 VA0029 REG	21 AB 2011	9 02	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		63
8 VA0029	SVMW 16 (50) G5 VA0029 REG	21 AB 2011	9 02	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0030	SVMW 16 (50) G5 VA0030 FD	21 AB 2011	9 02	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		39
9 VA0030	SVMW 16 (50) G5 VA0030 FD	21 AB 2011	9 02	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0031	SVEW 10 (50) G5 VA0031 REG	19 AB 2011	10 19	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		694
10 VA0031	SVEW 10 (50) G5 VA0031 REG	19 AB 2011	10 19	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0032	SVEW 12 (50) G5 VA0032 REG	21 AB 2011	9 45	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		587
11 VA0032	SVEW 12 (50) G5 VA0032 REG	21 AB 2011	9 45	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0033	KAIB VA0033 (50) G5 VA0033 REG	19 AB 2011	15 28	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		581
12 VA0033	KAIB VA0033 (50) G5 VA0033 REG	19 AB 2011	15 28	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0034	KAIB VA0034 (50) G5 VA0034 REG	19 AB 2011	16 01	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		618
13 VA0034	KAIB VA0034 (50) G5 VA0034 REG	19 AB 2011	16 01	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0035	KAIB VA0035 (50) G5 VA0035 REG	20 AB 2011	10 35	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		667
14 VA0035	KAIB VA0035 (50) G5 VA0035 REG	20 AB 2011	10 35	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0036	KAIB VA0036 (50) G5 VA0036 REG	20 AB 2011	11 18	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		62
15 VA0036	KAIB VA0036 (250) G5 VA0036 REG	20 AB 2011	11 18	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0037	KAIB VA0037 (50) G5 VA0037 REG	20 AB 2011	11 56	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		69
16 VA0037	KAIB VA0037 (50) G5 VA0037 REG	20 AB 2011	11 56	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		
VA0038	KAIB VA0038 (50) G5 VA0038 REG	20 AB 2011	12 34	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP_VOCs / TPH by TO 15		N		25
17 VA0038	KAIB VA0038 (50) G5 VA0038 REG	20 AB 2011	12 34	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504		N		

Shaw
Shaw E & I, Inc.

1107914

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-SV016

Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
	[illegible]	[illegible]	13 45	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15			N		674
18	[illegible]	[illegible]	13 45	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	14 25	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15			N		92
19	[illegible]	[illegible]	14 25	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	15 02	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15			N		26
20	[illegible]	[illegible]	15 02	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	8 55	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
21	[illegible]	[illegible]	8 55	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15			N		122
	[illegible]	[illegible]	10 05	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15			N		847
22	[illegible]	[illegible]	10 05	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	10 48	1 L BOTTLEVAC	1 None Required	Air Phase Petroleum Hydrocarbons by MA DEP, VOCs / TPH by TO 15			N		87
23	[illegible]	[illegible]	10 48	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
24	[illegible]	[illegible]	8 00	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		23
	[illegible]	[illegible]	8 50	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		892
25	[illegible]	[illegible]	8 50	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	9 11	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		673
26	[illegible]	[illegible]	9 11	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	14 25	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
27	[illegible]	[illegible]	14 25	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		677
	[illegible]	[illegible]	14 50	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		662
28	[illegible]	[illegible]	14 50	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	14 50	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		662
29	[illegible]	[illegible]	14 50	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	15 15	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		708
30	[illegible]	[illegible]	15 15	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	10 45	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		696
31	[illegible]	[illegible]	10 45	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	10 45	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		684
32	[illegible]	[illegible]	10 45	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
	[illegible]	[illegible]	11 22	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		
33	[illegible]	[illegible]	11 22	1 L BOTTLEVAC	1 None Required	VOCs / TPH by TO 15			N		588

1107914

Shaw
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: M0705 SV016

Sample No	Sample Name	Sample Date	Sample Time	Container	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
34 [illegible]	[illegible]	[illegible]	11:45	1 L ROTI EVAC	1 None Required	VOCS / TPH by TO 15			N		GOO
[illegible]	[illegible]	[illegible]	11:45	1 L Tedlar Bag	1 None Required	Fixed Gases by ASTM D2504			N		

NTH LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150
P: RED2 S: MNITE E 3
19F – FL2
17103135E034290 2785

NTH LABORATORIES
31628 GLENDALE ST
LIVONIA MI 48150
P: RED2 S: MNITE E 3
19F – FL2
17103135E034292 5190

CUSTODY SEAL QEC
Quality Environmental Contractors
800 255 3110 • 304 255 2803
DATE 7/22/11
SIGNATURE [illegible]

FROM:
RONDA BAILEY
(505) 917-0945
KAFB BFF/SHAW E&T INC
5202 RANDOLPH AVE SE
KIRTLAND AFB NM 87117

10 LBS 3 OF 3

DWT 19:14:18

MI 482 9-02

UPS GROUND
TRACKING # 1Z 103 35E 03 4252 6200

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

REF 1:140705
REF 2:ba010030

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

ABORATORIES
28 GLENDALE ST.
LIVONIA MI 48150

HOUSTON SELL QEC
Quality Environmental Containers
DATE 7/22
SIGNATURE

P: RED2 S: MNITE R: 3
19F – FL2
1Z 33E 034 252 6200

T - 10 Door : 1249
MI 48150
UPST 338773 MI 482 9-02

UPS GROUND

1Z10335E0342526200

RTI LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

COC ID: PAGE 1 OF 2

ADDRESS
RTI
31629 Glendale St.
Livonia, MI 48150
TEL: 7344228000
FAX: 7344225342
Website: www.rtilabs.com

Please Include Email Address of Report Recipient Whenever Possible!!!

SUB CONTRACTOR: ALS ENV
COMPANY: ALS Environmental
ADDRESS: 960 West Levoy Dr
CITY, STATE, ZIP: Salt Lake City, UT 84123
PHONE: (801) 266-7700
FAX: (801) 268-9992
ACCOUNT #:
EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:

ANALYTICAL PARAMETERS

ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	TO-15	TO-15 APH	COMMENTS Methanol Preserved Weights HOT Sample Notation Additional Sample Description, etc.
1	1107914-001B	VA0417	BOTTLE-VAC	Air	7/19/2011 8:44:00 AM	1	√		589
2	1107914-002B	VA0418	BOTTLE-VAC	Air	7/19/2011 9:06:00 AM	1	√		72
3	1107914-003B	VA0419	BOTTLE-VAC	Air	7/19/2011 9:28:00 AM	1	√		686
4	1107914-004B	VA0420	BOTTLE-VAC	Air	7/19/2011 9:54:00 AM	1	√		591
5	1107914-010B	VA0451	BOTTLE-VAC	Air	7/19/2011 10:19:00 AM	1	√		694
6	1107914-012B	VA0561	BOTTLE-VAC	Air	7/19/2011 3:28:00 PM	1	√		581
7	1107914-013B	VA0562	BOTTLE-VAC	Air	7/19/2011 4:01:00 PM	1		√	618
8	1107914-024A	VA8033-TB	SUMMA	Air	7/18/2011 8:00:00 AM	1	√		23
9	1107914-025B	VA9037	BOTTLE-VAC	Air	7/18/2011 8:50:00 AM	1	√		692
10	1107914-026B	VA9033	BOTTLE-VAC	Air	7/18/2011 9:11:00 AM	1	√		673

Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time

TAT: Standard ☐ RUSH: Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED

☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY

Temp of Sample: °C Attempt to Cool?

Comments:

www.ammara.com

RTI LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

COC ID: | PAGE: 2 | OF: 2

ADDRESS
RTI
31628 Glendale St.
Livonia, MI 48150
TEL: 7344228000
FAX: 7344223342
Website: www.rtilabs.com

Please Include Email Address of Report Recipient Whenever Possible!!!

SUB CONTRACTOR: ALS ENV | COMPANY: ALS Environmental
ADDRESS: 960 West Levoy Dr
CITY, STATE, ZIP: Salt Lake City, UT 84123
PHONE: (801) 266-7700 | FAX: (801) 268-9992
ACCOUNT #: | EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:

ANALYTICAL PARAMETERS: TO15 | SA_APH

ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	TO15	SA_APH	COMMENTS (Methanol Preserved Weights, HOT Sample Notation, Additional Sample Description, etc.)
11	1107914-027B	VA9035	BOTTLE-VAC	Air	7/18/2011 2:25:00 PM	1	✓		677
12	1107914-028B	VA9036	BOTTLE-VAC	Air	7/18/2011 2:50:00 PM	1	✓		682
13	1107914-029B	VA9037	BOTTLE-VAC	Air	7/18/2011 2:50:00 PM	1	✓		662
14	1107914-030B	VA9038	BOTTLE-VAC	Air	7/18/2011 3:15:00 PM	1	✓		
15	1107914-031B	VA9039	BOTTLE-VAC	Air	7/18/2011 10:45:00 AM	1	✓		696
16	1107914-032B	VA9040	BOTTLE-VAC	Air	7/18/2011 10:45:00 AM	1	✓		684
17	1107914-033B	VA9041	BOTTLE-VAC	Air	7/18/2011 11:22:00 AM	1	✓		588
18	1107914-034B	VA9042	BOTTLE-VAC	Air	7/18/2011 11:41:00 AM	1	✓		622
19						0			
20						0			

Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time
Relinquished By	Date	Time	Received By	Date	Time

TAT: Standard ☐ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples: °C Attempt to Cool?
Comments:

www.ammara.com

RTI LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

COC ID:	PAGE: 1	OF: 2

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

Please Include Email Address of Report Recipient Whenever Possible!!!

SUB CONTRATOR: **ALS ENV** COMPANY: **ALS Environmental**
ADDRESS: **960 West Levoy Dr**
CITY, STATE, ZIP: **Salt Lake City, UT 84123**
PHONE: **(801) 266-7700** FAX: **(801) 268-9992**
ACCOUNT #: EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:
USACE Samples, Please reference RTI WO 1107914 on report and invoice. Use Client sample ID for report and EDD.

ANALYTICAL PARAMETERS

ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	TO-15	COMMENTS Methanol Preserved Weights HOT Sample Notation Additional Sample Description, etc.
1	1107914-005B	VA0426	BOTTLE-VAC	Air	7/20/2011 3:39:00 PM	1	√	39A
2	1107914-006B	VA0427	BOTTLE-VAC	Air	7/20/2011 4:09:00 PM	1	√	594
3	1107914-007B	VA0428	BOTTLE-VAC	Air	7/21/2011 8:34:00 AM	1	√	607
4	1107914-008B	VA0429	BOTTLE-VAC	Air	7/21/2011 9:02:00 AM	1	√	63
5	1107914-009B	VA0431	BOTTLE-VAC	Air	7/21/2011 9:02:00 AM	1	√	39
6	1107914-011B	VA0453	BOTTLE-VAC	Air	7/21/2011 9:45:00 AM	1	√	587
7	1107914-014B	VA0563	BOTTLE-VAC	Air	7/20/2011 10:35:00 AM	1	√	667
8	1107914-015B	VA0564	BOTTLE-VAC	Air	7/20/2011 11:18:00 AM	1	√	62
9	1107914-016B	VA0565	BOTTLE-VAC	Air	7/20/2011 11:56:00 AM	1	√	69
10	1107914-017B	VA0566	BOTTLE-VAC	Air	7/20/2011 12:34:00 PM	1	√	25

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
[illegible]	9/20/2011	5:19 PM			
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☐ **RUSH** Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples _____ °C Attempt to Cool ? _____
Comments: _____

RTI LABORATORIES, INC.

CHAIN OF CUSTODY RECORD

COC ID:	PAGE: 2	OF: 2

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

Please Include Email Address of Report Recipient Whenever Possible!!!

SUB CONTRATOR: **ALS ENV** COMPANY: **ALS Environmental**
ADDRESS: **960 West Levoy Dr**
CITY, STATE, ZIP: **Salt Lake City, UT 84123**
PHONE: **(801) 266-7700** FAX: **(801) 268-9992**
ACCOUNT #: EMAIL:

SPECIAL INSTRUCTIONS / COMMENTS:
USACE Samples, Please reference RTI WO 1107914 on report and invoice. Use Client sample ID for report and EDD.

ANALYTICAL PARAMETERS

ITEM #	SAMPLE ID	Client Sample ID	Bottle Type	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	TO-15	COMMENTS Methanol Preserved Weights HOT Sample Notation Additional Sample Description, etc.
11	1107914-018B	VA0567	BOTTLE-VAC	Air	7/21/2011 1:45:00 PM	1	√	674
12	1107914-019B	VA0568	BOTTLE-VAC	Air	7/21/2011 2:25:00 PM	1	√	92
13	1107914-020B	VA0569	BOTTLE-VAC	Air	7/21/2011 3:02:00 PM	1	√	26
14	1107914-021B	VA0570	BOTTLE-VAC	Air	7/22/2011 8:55:00 AM	1	√	122
15	1107914-022B	VA0571	BOTTLE-VAC	Air	7/22/2011 10:05:00 AM	1	√	847
16	1107914-023B	VA0572	BOTTLE-VAC	Air	7/22/2011 10:48:00 AM	1	√	87
17						0		
18						0		
19						0		
20						0		

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	9/20/2011	5:19 PM			
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAT: Standard ☐ **RUSH** Next BD ☐ 2nd BD ☐ 3rd BD ☐

Note: RUSH requests will incur surcharges!

REPORT TRANSMITTAL DESIRED:
☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE

FOR LAB USE ONLY
Temp of samples _____°C Attempt to Cool ? _____
Comments: _____

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: **7/28/2011 12:00:00 PM**

Work Order Number **1107914** RcptNo: **1** Received by: **Christine Conradis**

Completed by: Reviewed by:

Completed Date: 7/28/2011 4:13:54 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:	1Z10335EO342925190			
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
1107914-001A	Container-01 of 01	Bottle				
1107914-001B	Container-01 of 01	Bottle				
1107914-002A	Container-01 of 01	Bottle				
1107914-002B	Container-01 of 01	Bottle				
1107914-003A	Container-01 of 01	Bottle				
1107914-003B	Container-01 of 01	Bottle				
1107914-004A	Container-01 of 01	Bottle				
1107914-004B	Container-01 of 01	Bottle				
1107914-005A	Container-01 of 01	Bottle				
1107914-005B	Container-01 of 01	Bottle				
1107914-006A	Container-01 of 01	Bottle				
1107914-006B	Container-01 of 01	Bottle				
1107914-007A	Container-01 of 01	Bottle				
1107914-007B	Container-01 of 01	Bottle				
1107914-008A	Container-01 of 01	Bottle				
1107914-008B	Container-01 of 01	Bottle				
1107914-009A	Container-01 of 01	Bottle				
1107914-009B	Container-01 of 01	Bottle				
1107914-010A	Container-01 of 01	Bottle				
1107914-010B	Container-01 of 01	Bottle				
1107914-011A	Container-01 of 01	Bottle				
1107914-011B	Container-01 of 01	Bottle				
1107914-012A	Container-01 of 01	Bottle				
1107914-012B	Container-01 of 01	Bottle				
1107914-013A	Container-01 of 01	Bottle				
1107914-013B	Container-01 of 01	Bottle				
1107914-014A	Container-01 of 01	Bottle				
1107914-014B	Container-01 of 01	Bottle				
1107914-015A	Container-01 of 01	Bottle				
1107914-015B	Container-01 of 01	Bottle				
1107914-016A	Container-01 of 01	Bottle				
1107914-016B	Container-01 of 01	Bottle				
1107914-017A	Container-01 of 01	Bottle				
1107914-017B	Container-01 of 01	Bottle				

SampID	ContainerID	Type	Org pH	Adj pH	Req Min pH	Req Max pH
1107914-018A	Container-01 of 01	Bottle				
1107914-018B	Container-01 of 01	Bottle				
1107914-019A	Container-01 of 01	Bottle				
1107914-019B	Container-01 of 01	Bottle				
1107914-020A	Container-01 of 01	Bottle				
1107914-020B	Container-01 of 01	Bottle				
1107914-021A	Container-01 of 01	Bottle				
1107914-021B	Container-01 of 01	Bottle				
1107914-022A	Container-01 of 01	Bottle				
1107914-022B	Container-01 of 01	Bottle				
1107914-023A	Container-01 of 01	Bottle				
1107914-023B	Container-01 of 01	Bottle				
1107914-024A	Container-01 of 01	Bottle				
1107914-025A	Container-01 of 01	Bottle				
1107914-025B	Container-01 of 01	Bottle				
1107914-026A	Container-01 of 01	Bottle				
1107914-026B	Container-01 of 01	Bottle				
1107914-027A	Container-01 of 01	Bottle				
1107914-027B	Container-01 of 01	Bottle				
1107914-028A	Container-01 of 01	Bottle				
1107914-028B	Container-01 of 01	Bottle				
1107914-029A	Container-01 of 01	Bottle				
1107914-029B	Container-01 of 01	Bottle				
1107914-030A	Container-01 of 01	Bottle				
1107914-030B	Container-01 of 01	Bottle				
1107914-031A	Container-01 of 01	Bottle				
1107914-031B	Container-01 of 01	Bottle				
1107914-032A	Container-01 of 01	Bottle				
1107914-032B	Container-01 of 01	Bottle				
1107914-033A	Container-01 of 01	Bottle				
1107914-033B	Container-01 of 01	Bottle				
1107914-034A	Container-01 of 01	Bottle				
1107914-034B	Container-01 of 01	Bottle				

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

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: Comments:

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

Client Instructions:

Date Contacted: Contacted By:

Regarding:

CorrectiveAction:

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: **1107914**

20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1107914-001	VA0417		7/19/2011 8:44:00 AM	7/28/2011 12:00:00 PM	Air
1107914-001	VA0417		7/19/2011 8:44:00 AM	7/28/2011 12:00:00 PM	Air
1107914-002	VA0418		7/19/2011 9:06:00 AM	7/28/2011 12:00:00 PM	Air
1107914-002	VA0418		7/19/2011 9:06:00 AM	7/28/2011 12:00:00 PM	Air
1107914-003	VA0419		7/19/2011 9:28:00 AM	7/28/2011 12:00:00 PM	Air
1107914-003	VA0419		7/19/2011 9:28:00 AM	7/28/2011 12:00:00 PM	Air
1107914-004	VA0420		7/19/2011 9:54:00 AM	7/28/2011 12:00:00 PM	Air
1107914-004	VA0420		7/19/2011 9:54:00 AM	7/28/2011 12:00:00 PM	Air
1107914-005	VA0426		7/20/2011 3:39:00 PM	7/28/2011 12:00:00 PM	Air
1107914-005	VA0426		7/20/2011 3:39:00 PM	7/28/2011 12:00:00 PM	Air
1107914-006	VA0427		7/20/2011 4:09:00 PM	7/28/2011 12:00:00 PM	Air
1107914-006	VA0427		7/20/2011 4:09:00 PM	7/28/2011 12:00:00 PM	Air
1107914-007	VA0428		7/21/2011 8:34:00 AM	7/28/2011 12:00:00 PM	Air
1107914-007	VA0428		7/21/2011 8:34:00 AM	7/28/2011 12:00:00 PM	Air
1107914-008	VA0429		7/21/2011 9:02:00 AM	7/28/2011 12:00:00 PM	Air
1107914-008	VA0429		7/21/2011 9:02:00 AM	7/28/2011 12:00:00 PM	Air
1107914-009	VA0431		7/21/2011 9:02:00 AM	7/28/2011 12:00:00 PM	Air
1107914-009	VA0431		7/21/2011 9:02:00 AM	7/28/2011 12:00:00 PM	Air
1107914-010	VA0451		7/19/2011 10:19:00 AM	7/28/2011 12:00:00 PM	Air
1107914-010	VA0451		7/19/2011 10:19:00 AM	7/28/2011 12:00:00 PM	Air
1107914-011	VA0453		7/21/2011 9:45:00 AM	7/28/2011 12:00:00 PM	Air
1107914-011	VA0453		7/21/2011 9:45:00 AM	7/28/2011 12:00:00 PM	Air
1107914-012	VA0561		7/19/2011 3:28:00 PM	7/28/2011 12:00:00 PM	Air
1107914-012	VA0561		7/19/2011 3:28:00 PM	7/28/2011 12:00:00 PM	Air
1107914-013	VA0562		7/19/2011 4:01:00 PM	7/28/2011 12:00:00 PM	Air
1107914-013	VA0562		7/19/2011 4:01:00 PM	7/28/2011 12:00:00 PM	Air
1107914-014	VA0563		7/20/2011 10:35:00 AM	7/28/2011 12:00:00 PM	Air
1107914-014	VA0563		7/20/2011 10:35:00 AM	7/28/2011 12:00:00 PM	Air
1107914-015	VA0564		7/20/2011 11:18:00 AM	7/28/2011 12:00:00 PM	Air
1107914-015	VA0564		7/20/2011 11:18:00 AM	7/28/2011 12:00:00 PM	Air
1107914-016	VA0565		7/20/2011 11:56:00 AM	7/28/2011 12:00:00 PM	Air
1107914-016	VA0565		7/20/2011 11:56:00 AM	7/28/2011 12:00:00 PM	Air
1107914-017	VA0566		7/20/2011 12:34:00 PM	7/28/2011 12:00:00 PM	Air
1107914-017	VA0566		7/20/2011 12:34:00 PM	7/28/2011 12:00:00 PM	Air

RTI LABORATORIES, INC.

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

Workorder Sample Summary

WO#: **1107914**

20-Oct-11

CLIENT: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1107914-018	VA0567		7/21/2011 1:45:00 PM	7/28/2011 12:00:00 PM	Air
1107914-018	VA0567		7/21/2011 1:45:00 PM	7/28/2011 12:00:00 PM	Air
1107914-019	VA0568		7/21/2011 2:25:00 PM	7/28/2011 12:00:00 PM	Air
1107914-019	VA0568		7/21/2011 2:25:00 PM	7/28/2011 12:00:00 PM	Air
1107914-020	VA0569		7/21/2011 3:02:00 PM	7/28/2011 12:00:00 PM	Air
1107914-020	VA0569		7/21/2011 3:02:00 PM	7/28/2011 12:00:00 PM	Air
1107914-021	VA0570		7/22/2011 8:55:00 AM	7/28/2011 12:00:00 PM	Air
1107914-021	VA0570		7/22/2011 8:55:00 AM	7/28/2011 12:00:00 PM	Air
1107914-022	VA0571		7/22/2011 10:05:00 AM	7/28/2011 12:00:00 PM	Air
1107914-022	VA0571		7/22/2011 10:05:00 AM	7/28/2011 12:00:00 PM	Air
1107914-023	VA0572		7/22/2011 10:48:00 AM	7/28/2011 12:00:00 PM	Air
1107914-023	VA0572		7/22/2011 10:48:00 AM	7/28/2011 12:00:00 PM	Air
1107914-024	VA8033-TB		7/18/2011 8:00:00 AM	7/28/2011 12:00:00 PM	Air
1107914-025	VA9032		7/18/2011 8:50:00 AM	7/28/2011 12:00:00 PM	Air
1107914-025	VA9032		7/18/2011 8:50:00 AM	7/28/2011 12:00:00 PM	Air
1107914-026	VA9033		7/18/2011 9:11:00 AM	7/28/2011 12:00:00 PM	Air
1107914-026	VA9033		7/18/2011 9:11:00 AM	7/28/2011 12:00:00 PM	Air
1107914-027	VA9035		7/18/2011 2:25:00 PM	7/28/2011 12:00:00 PM	Air
1107914-027	VA9035		7/18/2011 2:25:00 PM	7/28/2011 12:00:00 PM	Air
1107914-028	VA9036		7/18/2011 2:50:00 PM	7/28/2011 12:00:00 PM	Air
1107914-028	VA9036		7/18/2011 2:50:00 PM	7/28/2011 12:00:00 PM	Air
1107914-029	VA9037		7/18/2011 2:50:00 PM	7/28/2011 12:00:00 PM	Air
1107914-029	VA9037		7/18/2011 2:50:00 PM	7/28/2011 12:00:00 PM	Air
1107914-030	VA9038		7/18/2011 3:15:00 PM	7/28/2011 12:00:00 PM	Air
1107914-030	VA9038		7/18/2011 3:15:00 PM	7/28/2011 12:00:00 PM	Air
1107914-031	VA9039		7/18/2011 10:45:00 AM	7/28/2011 12:00:00 PM	Air
1107914-031	VA9039		7/18/2011 10:45:00 AM	7/28/2011 12:00:00 PM	Air
1107914-032	VA9040		7/18/2011 10:45:00 AM	7/28/2011 12:00:00 PM	Air
1107914-032	VA9040		7/18/2011 10:45:00 AM	7/28/2011 12:00:00 PM	Air
1107914-033	VA9041		7/18/2011 11:22:00 AM	7/28/2011 12:00:00 PM	Air
1107914-033	VA9041		7/18/2011 11:22:00 AM	7/28/2011 12:00:00 PM	Air
1107914-034	VA9042		7/18/2011 11:41:00 AM	7/28/2011 12:00:00 PM	Air
1107914-034	VA9042		7/18/2011 11:41:00 AM	7/28/2011 12:00:00 PM	Air

RTI LABORATORIES, INC.

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

DATES REPORT

WO#: **1107914**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705-SVO16

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1107914-001A	VA0417	7/19/2011 8:44:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			8/17/2011 3:47:00 PM
1107914-001B				Air-Phase Petroleum Hydrocarbons			8/17/2011 4:41:00 PM
1107914-002A	VA0418	7/19/2011 9:06:00 AM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 4:24:00 PM
1107914-002B				Air-Phase Petroleum Hydrocarbons			8/18/2011 2:25:00 PM
1107914-003A	VA0419	7/19/2011 9:28:00 AM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 4:43:00 PM
1107914-003B				Air-Phase Petroleum Hydrocarbons			8/18/2011 3:14:00 PM
1107914-004A	VA0420	7/19/2011 9:54:00 AM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 5:22:00 PM
1107914-004B				Air-Phase Petroleum Hydrocarbons			8/18/2011 4:02:00 PM
1107914-005A	VA0426	7/20/2011 3:39:00 PM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 5:53:00 PM
1107914-005B				Air-Phase Petroleum Hydrocarbons			8/19/2011 3:25:00 PM
1107914-006A	VA0427	7/20/2011 4:09:00 PM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 6:13:00 PM
1107914-006B				Air-Phase Petroleum Hydrocarbons			8/19/2011 4:07:00 PM
1107914-007A	VA0428	7/21/2011 8:34:00 AM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 12:42:00 PM
1107914-007B				Air-Phase Petroleum Hydrocarbons			8/19/2011 4:49:00 PM
1107914-008A	VA0429	7/21/2011 9:02:00 AM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 1:03:00 PM
1107914-008B				Air-Phase Petroleum Hydrocarbons			8/19/2011 12:23:00 AM
1107914-009A	VA0431			Noncondensable Gases and Light Hydrocarbons			8/19/2011 1:23:00 PM
1107914-009B				Air-Phase Petroleum Hydrocarbons			8/19/2011 1:08:00 AM
1107914-010A	VA0451	7/19/2011 10:19:00 AM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 5:47:00 PM
1107914-010B				Air-Phase Petroleum Hydrocarbons			8/18/2011 4:51:00 PM

RTI LABORATORIES, INC.

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Livonia, MI 48150
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DATES REPORT

WO#: **1107914**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705-SVO16

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1107914-011A	VA0453	7/21/2011 9:45:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			8/19/2011 1:46:00 PM
1107914-011B				Air-Phase Petroleum Hydrocarbons			8/19/2011 1:53:00 AM
1107914-012A	VA0561	7/19/2011 3:28:00 PM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 3:38:00 PM
1107914-012B				Air-Phase Petroleum Hydrocarbons			8/18/2011 5:40:00 PM
1107914-013A	VA0562	7/19/2011 4:01:00 PM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 4:08:00 PM
1107914-013B				Air-Phase Petroleum Hydrocarbons			8/18/2011 6:28:00 PM
1107914-014A	VA0563	7/20/2011 10:35:00 AM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 4:28:00 PM
1107914-014B				Air-Phase Petroleum Hydrocarbons			8/18/2011 7:10:00 PM
1107914-015A	VA0564	7/20/2011 11:18:00 AM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 4:46:00 PM
1107914-015B				Air-Phase Petroleum Hydrocarbons			8/19/2011 12:37:00 PM
1107914-016A	VA0565	7/20/2011 11:56:00 AM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 5:11:00 PM
1107914-016B				Air-Phase Petroleum Hydrocarbons			8/19/2011 2:01:00 PM
1107914-017A	VA0566	7/20/2011 12:34:00 PM		Noncondensable Gases and Light Hydrocarbons			8/18/2011 5:34:00 PM
1107914-017B				Air-Phase Petroleum Hydrocarbons			8/19/2011 2:43:00 PM
1107914-018A	VA0567	7/21/2011 1:45:00 PM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 2:40:00 PM
1107914-018B				Air-Phase Petroleum Hydrocarbons			8/19/2011 5:31:00 PM
1107914-019A	VA0568	7/21/2011 2:25:00 PM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 2:59:00 PM
1107914-019B				Air-Phase Petroleum Hydrocarbons			8/19/2011 6:19:00 PM
1107914-020A	VA0569	7/21/2011 3:02:00 PM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 3:22:00 PM
1107914-020B				Air-Phase Petroleum Hydrocarbons			8/22/2011 2:20:00 PM

RTI LABORATORIES, INC.

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

DATES REPORT

WO#: **1107914**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705-SVO16

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1107914-021A	VA0570	7/22/2011 8:55:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			8/19/2011 3:49:00 PM
1107914-021B				Air-Phase Petroleum Hydrocarbons			8/22/2011 3:44:00 PM
1107914-022A	VA0571	7/22/2011 10:05:00 AM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 4:08:00 PM
1107914-022B				Air-Phase Petroleum Hydrocarbons			8/22/2011 4:24:00 PM
1107914-023A	VA0572	7/22/2011 10:48:00 AM		Noncondensable Gases and Light Hydrocarbons			8/19/2011 4:28:00 PM
1107914-023B				Air-Phase Petroleum Hydrocarbons			8/22/2011 5:06:00 PM
1107914-025A	VA9032	7/18/2011 8:50:00 AM		Noncondensable Gases and Light Hydrocarbons			8/16/2011 5:35:00 PM
1107914-025B				Air-Phase Petroleum Hydrocarbons			8/17/2011 12:14:00 PM
1107914-026A	VA9033	7/18/2011 9:11:00 AM		Noncondensable Gases and Light Hydrocarbons			8/16/2011 5:53:00 PM
1107914-026B				Air-Phase Petroleum Hydrocarbons			8/17/2011 4:45:00 AM
1107914-027A	VA9035	7/18/2011 2:25:00 PM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 12:55:00 PM
1107914-027B				Air-Phase Petroleum Hydrocarbons			8/17/2011 2:34:00 PM
1107914-028A	VA9036	7/18/2011 2:50:00 PM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 2:27:00 PM
1107914-028B				Air-Phase Petroleum Hydrocarbons			8/17/2011 9:16:00 AM
1107914-029A	VA9037			Noncondensable Gases and Light Hydrocarbons			8/17/2011 2:53:00 PM
1107914-029B				Air-Phase Petroleum Hydrocarbons			8/17/2011 10:01:00 AM
1107914-030A	VA9038	7/18/2011 3:15:00 PM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 3:28:00 PM
1107914-030B				Air-Phase Petroleum Hydrocarbons			8/17/2011 3:16:00 PM
1107914-031A	VA9039	7/18/2011 10:45:00 AM		Noncondensable Gases and Light Hydrocarbons			8/16/2011 6:12:00 PM
1107914-031B				Air-Phase Petroleum Hydrocarbons			8/17/2011 1:10:00 PM

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Website: www.rtilabs.com

DATES REPORT

WO#: **1107914**

20-Oct-11

Client: Shaw Environmental & Infrastructure, Inc

Project: Kirtland AFB 140705-SVO16

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
1107914-032A	VA9040	7/18/2011 10:45:00 AM	Air	Noncondensable Gases and Light Hydrocarbons			8/16/2011 6:32:00 PM
1107914-032B				Air-Phase Petroleum Hydrocarbons			8/17/2011 1:52:00 PM
1107914-033A	VA9041	7/18/2011 11:22:00 AM		Noncondensable Gases and Light Hydrocarbons			8/16/2011 7:04:00 PM
1107914-033B				Air-Phase Petroleum Hydrocarbons			8/17/2011 7:00:00 AM
1107914-034A	VA9042	7/18/2011 11:41:00 AM		Noncondensable Gases and Light Hydrocarbons			8/17/2011 12:32:00 PM
1107914-034B				Air-Phase Petroleum Hydrocarbons			8/17/2011 7:45:00 AM

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 8:44:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-001 **Matrix:** AIR

Client Sample ID VA0417

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.11	0.10		%	1	8/17/2011 3:47:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 3:47:00 PM
Methane	ND	0.50		%	1	8/17/2011 3:47:00 PM
Nitrogen	78	0.10		%	1	8/17/2011 3:47:00 PM
Oxygen	21	0.10		%	1	8/17/2011 3:47:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	53,000	4,700		µg/m³	40	8/17/2011 4:41:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	8/17/2011 4:41:00 PM
C9-C12 Aliphatic Hydrocarbons	14,000	7,600		µg/m³	40	8/17/2011 4:41:00 PM
Surr: 4-Bromofluorobenzene	98.6	70-130		%REC	40	8/17/2011 4:41:00 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

Revision v2

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Analytical Report

(consolidated)

WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 9:06:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-002 **Matrix:** AIR

Client Sample ID VA0418

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.13	0.10		%	1	8/17/2011 4:24:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 4:24:00 PM
Methane	ND	0.50		%	1	8/17/2011 4:24:00 PM
Nitrogen	78	0.10		%	1	8/17/2011 4:24:00 PM
Oxygen	21	0.10		%	1	8/17/2011 4:24:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	110,000	47,000	H	µg/m³	400	8/18/2011 2:25:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	8/18/2011 2:25:00 PM
C9-C12 Aliphatic Hydrocarbons	17,000	76,000	JH	µg/m³	400	8/18/2011 2:25:00 PM
Surr: 4-Bromofluorobenzene	99.5	70-130	H	%REC	400	8/18/2011 2:25:00 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

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 9:28:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-003 **Matrix:** AIR

Client Sample ID VA0419

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.21	0.10		%	1	8/17/2011 4:43:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 4:43:00 PM
Methane	ND	0.50		%	1	8/17/2011 4:43:00 PM
Nitrogen	78	0.10		%	1	8/17/2011 4:43:00 PM
Oxygen	21	0.10		%	1	8/17/2011 4:43:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	170,000	47,000	H	µg/m³	400	8/18/2011 3:14:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	8/18/2011 3:14:00 PM
C9-C12 Aliphatic Hydrocarbons	23,000	76,000	JH	µg/m³	400	8/18/2011 3:14:00 PM
Surr: 4-Bromofluorobenzene	97.0	70-130	H	%REC	400	8/18/2011 3:14:00 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

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 9:54:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-004 **Matrix:** AIR

Client Sample ID VA0420

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.11	0.10		%	1	8/17/2011 5:22:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 5:22:00 PM
Methane	ND	0.50		%	1	8/17/2011 5:22:00 PM
Nitrogen	78	0.10		%	1	8/17/2011 5:22:00 PM
Oxygen	22	0.10		%	1	8/17/2011 5:22:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	130,000	47,000	H	µg/m³	400	8/18/2011 4:02:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	8/18/2011 4:02:00 PM
C9-C12 Aliphatic Hydrocarbons	28,000	76,000	JH	µg/m³	400	8/18/2011 4:02:00 PM
Surr: 4-Bromofluorobenzene	98.3	70-130	H	%REC	400	8/18/2011 4:02:00 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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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/20/2011 3:39:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-005 **Matrix:** AIR

Client Sample ID VA0426

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.16	0.10		%	1	8/18/2011 5:53:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 5:53:00 PM
Methane	ND	0.50		%	1	8/18/2011 5:53:00 PM
Nitrogen	78	0.10		%	1	8/18/2011 5:53:00 PM
Oxygen	20	0.10		%	1	8/18/2011 5:53:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	37,000	4,700		µg/m³	40	8/19/2011 3:25:00 PM
C9-C10 Aromatic Hydrocarbons	1,500	5,300	J	µg/m³	40	8/19/2011 3:25:00 PM
C9-C12 Aliphatic Hydrocarbons	15,000	7,600		µg/m³	40	8/19/2011 3:25:00 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	40	8/19/2011 3:25:00 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

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Analytical Report

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/20/2011 4:09:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-006 **Matrix:** AIR

Client Sample ID VA0427

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.17	0.10		%	1	8/18/2011 6:13:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 6:13:00 PM
Methane	ND	0.50		%	1	8/18/2011 6:13:00 PM
Nitrogen	78	0.10		%	1	8/18/2011 6:13:00 PM
Oxygen	21	0.10		%	1	8/18/2011 6:13:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	35,000	4,700		µg/m³	40	8/19/2011 4:07:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	8/19/2011 4:07:00 PM
C9-C12 Aliphatic Hydrocarbons	12,000	7,600		µg/m³	40	8/19/2011 4:07:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	40	8/19/2011 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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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/21/2011 8:34:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-007 **Matrix:** AIR

Client Sample ID VA0428

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	8/19/2011 12:42:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 12:42:00 PM
Methane	ND	0.50		%	1	8/19/2011 12:42:00 PM
Nitrogen	78	0.10		%	1	8/19/2011 12:42:00 PM
Oxygen	21	0.10		%	1	8/19/2011 12:42:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	53,000	4,700		µg/m³	40	8/19/2011 4:49:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	8/19/2011 4:49:00 PM
C9-C12 Aliphatic Hydrocarbons	9,200	7,600		µg/m³	40	8/19/2011 4:49:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	40	8/19/2011 4:49:00 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 v2

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Analytical Report

(consolidated)

WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/21/2011 9:02:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-008 **Matrix:** AIR

Client Sample ID VA0429

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.80	0.10		%	1	8/19/2011 1:03:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 1:03:00 PM
Methane	ND	0.50		%	1	8/19/2011 1:03:00 PM
Nitrogen	83	0.10		%	1	8/19/2011 1:03:00 PM
Oxygen	15	0.10		%	1	8/19/2011 1:03:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	410,000	94,000		µg/m³	800	8/19/2011 12:23:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/19/2011 12:23:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/19/2011 12:23:00 AM
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	800	8/19/2011 12:23:00 AM

Qualifiers:

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

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/21/2011 9:02:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-009 **Matrix:** AIR

Client Sample ID VA0431

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.46	0.10		%	1	8/19/2011 1:23:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 1:23:00 PM
Methane	ND	0.50		%	1	8/19/2011 1:23:00 PM
Nitrogen	81	0.10		%	1	8/19/2011 1:23:00 PM
Oxygen	18	0.10		%	1	8/19/2011 1:23:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	260,000	94,000		µg/m³	800	8/19/2011 1:08:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/19/2011 1:08:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/19/2011 1:08:00 AM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	800	8/19/2011 1:08:00 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

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 10:19:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-010 **Matrix:** AIR

Client Sample ID VA0451

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.082	0.10	J	%	1	8/17/2011 5:47:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 5:47:00 PM
Methane	ND	0.50		%	1	8/17/2011 5:47:00 PM
Nitrogen	78	0.10		%	1	8/17/2011 5:47:00 PM
Oxygen	22	0.10		%	1	8/17/2011 5:47:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	100,000	47,000	H	µg/m³	400	8/18/2011 4:51:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	8/18/2011 4:51:00 PM
C9-C12 Aliphatic Hydrocarbons	23,000	76,000	JH	µg/m³	400	8/18/2011 4:51:00 PM
Surr: 4-Bromofluorobenzene	97.2	70-130	H	%REC	400	8/18/2011 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

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Analytical Report

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/21/2011 9:45:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-011 **Matrix:** AIR

Client Sample ID VA0453

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	8/19/2011 1:46:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 1:46:00 PM
Methane	ND	0.50		%	1	8/19/2011 1:46:00 PM
Nitrogen	78	0.10		%	1	8/19/2011 1:46:00 PM
Oxygen	21	0.10		%	1	8/19/2011 1:46:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	480,000	94,000		µg/m³	800	8/19/2011 1:53:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/19/2011 1:53:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/19/2011 1:53:00 AM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	800	8/19/2011 1:53:00 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#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 3:28:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-012 **Matrix:** AIR

Client Sample ID VA0561

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.55	0.10		%	1	8/18/2011 3:38:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 3:38:00 PM
Methane	ND	0.50		%	1	8/18/2011 3:38:00 PM
Nitrogen	78	0.10		%	1	8/18/2011 3:38:00 PM
Oxygen	20	0.10		%	1	8/18/2011 3:38:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	180,000	47,000	H	µg/m³	400	8/18/2011 5:40:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	8/18/2011 5:40:00 PM
C9-C12 Aliphatic Hydrocarbons	23,000	76,000	JH	µg/m³	400	8/18/2011 5:40:00 PM
Surr: 4-Bromofluorobenzene	97.9	70-130	H	%REC	400	8/18/2011 5:40:00 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 v2

RTI LABORATORIES, INC.

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/19/2011 4:01:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-013 **Matrix:** AIR

Client Sample ID VA0562

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.57	0.10		%	1	8/18/2011 4:08:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 4:08:00 PM
Methane	ND	0.50		%	1	8/18/2011 4:08:00 PM
Nitrogen	79	0.10		%	1	8/18/2011 4:08:00 PM
Oxygen	20	0.10		%	1	8/18/2011 4:08:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	93,000	47,000	H	µg/m³	400	8/18/2011 6:28:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000	H	µg/m³	400	8/18/2011 6:28:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	76,000	H	µg/m³	400	8/18/2011 6:28:00 PM
Surr: 4-Bromofluorobenzene	95.8	70-130	H	%REC	400	8/18/2011 6:28:00 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 v2

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Analytical Report

(consolidated)

WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/20/2011 10:35:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-014 **Matrix:** AIR

Client Sample ID VA0563

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.20	0.10		%	1	8/18/2011 4:28:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 4:28:00 PM
Methane	ND	0.50		%	1	8/18/2011 4:28:00 PM
Nitrogen	78	0.10		%	1	8/18/2011 4:28:00 PM
Oxygen	20	0.10		%	1	8/18/2011 4:28:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	380,000	940,000	J	µg/m³	8000	8/18/2011 7:10:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000		µg/m³	8000	8/18/2011 7:10:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000		µg/m³	8000	8/18/2011 7:10:00 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	8000	8/18/2011 7:10:00 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 v2

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Analytical Report

(consolidated)

WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/20/2011 11:18:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-015 **Matrix:** AIR

Client Sample ID VA0564

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.12	0.10		%	1	8/18/2011 4:46:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 4:46:00 PM
Methane	ND	0.50		%	1	8/18/2011 4:46:00 PM
Nitrogen	77	0.10		%	1	8/18/2011 4:46:00 PM
Oxygen	21	0.10		%	1	8/18/2011 4:46:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	16,000	4,700	H	µg/m³	40	8/19/2011 12:37:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/19/2011 12:37:00 PM
C9-C12 Aliphatic Hydrocarbons	12,000	7,600	H	µg/m³	40	8/19/2011 12:37:00 PM
Surr: 4-Bromofluorobenzene	106	70-130	H	%REC	40	8/19/2011 12:37:00 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#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/20/2011 11:56:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-016 **Matrix:** AIR

Client Sample ID VA0565

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.11	0.10		%	1	8/18/2011 5:11:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 5:11:00 PM
Methane	ND	0.50		%	1	8/18/2011 5:11:00 PM
Nitrogen	78	0.10		%	1	8/18/2011 5:11:00 PM
Oxygen	21	0.10		%	1	8/18/2011 5:11:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	62,000	4,700	H	µg/m³	40	8/19/2011 2:01:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/19/2011 2:01:00 PM
C9-C12 Aliphatic Hydrocarbons	9,000	7,600	H	µg/m³	40	8/19/2011 2:01:00 PM
Surr: 4-Bromofluorobenzene	100	70-130	H	%REC	40	8/19/2011 2:01:00 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

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/20/2011 12:34:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-017 **Matrix:** AIR

Client Sample ID VA0566

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.17	0.10		%	1	8/18/2011 5:34:00 PM
Carbon Monoxide	ND	0.10		%	1	8/18/2011 5:34:00 PM
Methane	ND	0.50		%	1	8/18/2011 5:34:00 PM
Nitrogen	79	0.10		%	1	8/18/2011 5:34:00 PM
Oxygen	20	0.10		%	1	8/18/2011 5:34:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	7,700,000	940,000	H	µg/m³	8000	8/19/2011 2:43:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	8/19/2011 2:43:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	8/19/2011 2:43:00 PM
Surr: 4-Bromofluorobenzene	98.4	70-130	H	%REC	8000	8/19/2011 2:43:00 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 v2

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc

Collection Date: 7/21/2011 1:45:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-018

Matrix: AIR

Client Sample ID VA0567

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.77	0.10		%	1	8/19/2011 2:40:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 2:40:00 PM
Methane	ND	0.50		%	1	8/19/2011 2:40:00 PM
Nitrogen	79	0.10		%	1	8/19/2011 2:40:00 PM
Oxygen	20	0.10		%	1	8/19/2011 2:40:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	48,000	4,700		µg/m³	40	8/19/2011 5:31:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300		µg/m³	40	8/19/2011 5:31:00 PM
C9-C12 Aliphatic Hydrocarbons	13,000	7,600		µg/m³	40	8/19/2011 5:31:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	40	8/19/2011 5:31:00 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 v2

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Analytical Report

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WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/21/2011 2:25:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-019 **Matrix:** AIR

Client Sample ID VA0568

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.2	0.10		%	1	8/19/2011 2:59:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 2:59:00 PM
Methane	ND	0.50		%	1	8/19/2011 2:59:00 PM
Nitrogen	78	0.10		%	1	8/19/2011 2:59:00 PM
Oxygen	19	0.10		%	1	8/19/2011 2:59:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	130,000	47,000		µg/m³	400	8/19/2011 6:19:00 PM
C9-C10 Aromatic Hydrocarbons	ND	53,000		µg/m³	400	8/19/2011 6:19:00 PM
C9-C12 Aliphatic Hydrocarbons	30,000	76,000	J	µg/m³	400	8/19/2011 6:19:00 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	400	8/19/2011 6:19:00 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

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WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc

Collection Date: 7/21/2011 3:02:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-020

Matrix: AIR

Client Sample ID VA0569

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.17	0.10		%	1	8/19/2011 3:22:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 3:22:00 PM
Methane	ND	0.50		%	1	8/19/2011 3:22:00 PM
Nitrogen	79	0.10		%	1	8/19/2011 3:22:00 PM
Oxygen	20	0.10		%	1	8/19/2011 3:22:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	13,000	4,700	H	µg/m³	40	8/22/2011 2:20:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/22/2011 2:20:00 PM
C9-C12 Aliphatic Hydrocarbons	9,000	7,600	H	µg/m³	40	8/22/2011 2:20:00 PM
Surr: 4-Bromofluorobenzene	105	70-130	H	%REC	40	8/22/2011 2:20:00 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 v2

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/22/2011 8:55:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-021 **Matrix:** AIR

Client Sample ID VA0570

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.13	0.10		%	1	8/19/2011 3:49:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 3:49:00 PM
Methane	ND	0.50		%	1	8/19/2011 3:49:00 PM
Nitrogen	78	0.10		%	1	8/19/2011 3:49:00 PM
Oxygen	21	0.10		%	1	8/19/2011 3:49:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	12,000	4,700	H	µg/m³	40	8/22/2011 3:44:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/22/2011 3:44:00 PM
C9-C12 Aliphatic Hydrocarbons	4,100	7,600	JH	µg/m³	40	8/22/2011 3:44:00 PM
Surr: 4-Bromofluorobenzene	99.5	70-130	H	%REC	40	8/22/2011 3:44:00 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

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/22/2011 10:05:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-022 **Matrix:** AIR

Client Sample ID VA0571

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.14	0.10		%	1	8/19/2011 4:08:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 4:08:00 PM
Methane	ND	0.50		%	1	8/19/2011 4:08:00 PM
Nitrogen	77	0.10		%	1	8/19/2011 4:08:00 PM
Oxygen	21	0.10		%	1	8/19/2011 4:08:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	10,000	4,700	H	µg/m³	40	8/22/2011 4:24:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/22/2011 4:24:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	H	µg/m³	40	8/22/2011 4:24:00 PM
Surr: 4-Bromofluorobenzene	96.7	70-130	H	%REC	40	8/22/2011 4:24:00 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

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/22/2011 10:48:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-023 **Matrix:** AIR

Client Sample ID VA0572

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.15	0.10		%	1	8/19/2011 4:28:00 PM
Carbon Monoxide	ND	0.10		%	1	8/19/2011 4:28:00 PM
Methane	ND	0.50		%	1	8/19/2011 4:28:00 PM
Nitrogen	79	0.10		%	1	8/19/2011 4:28:00 PM
Oxygen	20	0.10		%	1	8/19/2011 4:28:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	39,000	4,700	H	µg/m³	40	8/22/2011 5:06:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/22/2011 5:06:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	7,600	H	µg/m³	40	8/22/2011 5:06:00 PM
Surr: 4-Bromofluorobenzene	97.4	70-130	H	%REC	40	8/22/2011 5:06:00 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

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WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc

Collection Date: 7/18/2011 8:50:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-025

Matrix: AIR

Client Sample ID VA9032

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	1.5	0.10		%	1	8/16/2011 5:35:00 PM
Carbon Monoxide	ND	0.10		%	1	8/16/2011 5:35:00 PM
Methane	ND	0.50		%	1	8/16/2011 5:35:00 PM
Nitrogen	81	0.10		%	1	8/16/2011 5:35:00 PM
Oxygen	18	0.10		%	1	8/16/2011 5:35:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	9,300,000	940,000	H	µg/m³	8000	8/17/2011 12:14:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	8/17/2011 12:14:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	8/17/2011 12:14:00 PM
Surr: 4-Bromofluorobenzene	98.7	70-130	H	%REC	8000	8/17/2011 12:14:00 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#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc

Collection Date: 7/18/2011 9:11:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-026

Matrix: AIR

Client Sample ID VA9033

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.0	0.10		%	1	8/16/2011 5:53:00 PM
Carbon Monoxide	0.37	0.10		%	1	8/16/2011 5:53:00 PM
Methane	ND	0.50		%	1	8/16/2011 5:53:00 PM
Nitrogen	86	0.10		%	1	8/16/2011 5:53:00 PM
Oxygen	9.0	0.10		%	1	8/16/2011 5:53:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	270,000	94,000		µg/m³	800	8/17/2011 4:45:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/17/2011 4:45:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/17/2011 4:45:00 AM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	800	8/17/2011 4:45:00 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 v2

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 2:25:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-027 **Matrix:** AIR

Client Sample ID VA9035

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.68	0.10		%	1	8/17/2011 12:55:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 12:55:00 PM
Methane	ND	0.50		%	1	8/17/2011 12:55:00 PM
Nitrogen	81	0.10		%	1	8/17/2011 12:55:00 PM
Oxygen	18	0.10		%	1	8/17/2011 12:55:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	28,000,000	940,000	H	µg/m³	8000	8/17/2011 2:34:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	8/17/2011 2:34:00 PM
C9-C12 Aliphatic Hydrocarbons	920,000	1,500,000	JH	µg/m³	8000	8/17/2011 2:34:00 PM
Surr: 4-Bromofluorobenzene	100	70-130	H	%REC	8000	8/17/2011 2:34:00 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#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 2:50:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-028 **Matrix:** AIR

Client Sample ID VA9036

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.5	0.10		%	1	8/17/2011 2:27:00 PM
Carbon Monoxide	0.64	0.10		%	1	8/17/2011 2:27:00 PM
Methane	ND	0.50		%	1	8/17/2011 2:27:00 PM
Nitrogen	88	0.10		%	1	8/17/2011 2:27:00 PM
Oxygen	6.2	0.10		%	1	8/17/2011 2:27:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	760,000	94,000		µg/m³	800	8/17/2011 9:16:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/17/2011 9:16:00 AM
C9-C12 Aliphatic Hydrocarbons	40,000	150,000	J	µg/m³	800	8/17/2011 9:16:00 AM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	800	8/17/2011 9:16:00 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#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 2:50:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-029 **Matrix:** AIR

Client Sample ID VA9037

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.1	0.10		%	1	8/17/2011 2:53:00 PM
Carbon Monoxide	0.68	0.10		%	1	8/17/2011 2:53:00 PM
Methane	ND	0.50		%	1	8/17/2011 2:53:00 PM
Nitrogen	88	0.10		%	1	8/17/2011 2:53:00 PM
Oxygen	6.2	0.10		%	1	8/17/2011 2:53:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	410,000	94,000		µg/m³	800	8/17/2011 10:01:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/17/2011 10:01:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/17/2011 10:01:00 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	800	8/17/2011 10:01:00 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 v2

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 3:15:00 PM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-030 **Matrix:** AIR

Client Sample ID VA9038

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.074	0.10	J	%	1	8/17/2011 3:28:00 PM
Carbon Monoxide	ND	0.10		%	1	8/17/2011 3:28:00 PM
Methane	ND	0.50		%	1	8/17/2011 3:28:00 PM
Nitrogen	78	0.10		%	1	8/17/2011 3:28:00 PM
Oxygen	22	0.10		%	1	8/17/2011 3:28:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	42,000	4,700	H	µg/m³	40	8/17/2011 3:16:00 PM
C9-C10 Aromatic Hydrocarbons	ND	5,300	H	µg/m³	40	8/17/2011 3:16:00 PM
C9-C12 Aliphatic Hydrocarbons	5,200	7,600	JH	µg/m³	40	8/17/2011 3:16:00 PM
Surr: 4-Bromofluorobenzene	95.8	70-130	H	%REC	40	8/17/2011 3:16:00 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#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc

Collection Date: 7/18/2011 10:45:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-031

Matrix: AIR

Client Sample ID VA9039

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.56	0.10		%	1	8/16/2011 6:12:00 PM
Carbon Monoxide	ND	0.10		%	1	8/16/2011 6:12:00 PM
Methane	ND	0.50		%	1	8/16/2011 6:12:00 PM
Nitrogen	80	0.10		%	1	8/16/2011 6:12:00 PM
Oxygen	19	0.10		%	1	8/16/2011 6:12:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	6,700,000	940,000	H	µg/m³	8000	8/17/2011 1:10:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	8/17/2011 1:10:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	8/17/2011 1:10:00 PM
Surr: 4-Bromofluorobenzene	99.2	70-130	H	%REC	8000	8/17/2011 1:10:00 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#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 10:45:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-032 **Matrix:** AIR

Client Sample ID VA9040

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	0.44	0.10		%	1	8/16/2011 6:32:00 PM
Carbon Monoxide	ND	0.10		%	1	8/16/2011 6:32:00 PM
Methane	ND	0.50		%	1	8/16/2011 6:32:00 PM
Nitrogen	79	0.10		%	1	8/16/2011 6:32:00 PM
Oxygen	19	0.10		%	1	8/16/2011 6:32:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	6,300,000	940,000	H	µg/m³	8000	8/17/2011 1:52:00 PM
C9-C10 Aromatic Hydrocarbons	ND	1,100,000	H	µg/m³	8000	8/17/2011 1:52:00 PM
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000	H	µg/m³	8000	8/17/2011 1:52:00 PM
Surr: 4-Bromofluorobenzene	98.4	70-130	H	%REC	8000	8/17/2011 1:52:00 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 v2

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Analytical Report

(consolidated)

WO#: 1107914

Date Reported: 10/21/2011

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 11:22:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-033 **Matrix:** AIR

Client Sample ID VA9041

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.1	0.10		%	1	8/16/2011 7:04:00 PM
Carbon Monoxide	0.45	0.10		%	1	8/16/2011 7:04:00 PM
Methane	0.031	0.50	J	%	1	8/16/2011 7:04:00 PM
Nitrogen	88	0.10		%	1	8/16/2011 7:04:00 PM
Oxygen	6.2	0.10		%	1	8/16/2011 7:04:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	640,000	94,000		µg/m³	800	8/17/2011 7:00:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/17/2011 7:00:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/17/2011 7:00:00 AM
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	800	8/17/2011 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

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Analytical Report

(consolidated)

WO#: **1107914**

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

CLIENT: Shaw Environmental & Infrastructure, Inc **Collection Date:** 7/18/2011 11:41:00 AM

Project: Kirtland AFB 140705-SVO16

Lab ID: 1107914-034 **Matrix:** AIR

Client Sample ID VA9042

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NONCONDENSABLE GASES AND LIGHT HYDROCARBONS				**ASTM-D2504**		Analyst: **MB**
Carbon dioxide	4.0	0.10		%	1	8/17/2011 12:32:00 PM
Carbon Monoxide	0.37	0.10		%	1	8/17/2011 12:32:00 PM
Methane	0.033	0.50	J	%	1	8/17/2011 12:32:00 PM
Nitrogen	88	0.10		%	1	8/17/2011 12:32:00 PM
Oxygen	6.4	0.10		%	1	8/17/2011 12:32:00 PM
MASS APH AIR AIR-PHASE PETROLEUM HYDROCARBONS				**MA_APH**		Analyst: **RH3**
C5-C8 Aliphatic Hydrocarbons	180,000	94,000		µg/m³	800	8/17/2011 7:45:00 AM
C9-C10 Aromatic Hydrocarbons	ND	110,000		µg/m³	800	8/17/2011 7:45:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	150,000		µg/m³	800	8/17/2011 7:45:00 AM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	800	8/17/2011 7:45:00 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 v2

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QC SUMMARY REPORT

WO#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

BatchID: R42263

Sample ID: **MASS APH MBLK 08** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42263**
Client ID: **PBW** Batch ID: **R42263** TestNo: **MA_APH** Analysis Date: **8/17/2011** SeqNo: **817548**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	41	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	87		89.50		96.9	70	130				

Sample ID: **1107914-030BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42263**
Client ID: **VA9038** Batch ID: **R42263** TestNo: **MA_APH** Analysis Date: **8/17/2011** SeqNo: **817872**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	46,000	4,700						42,110	9.04	30	H
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	4,000	7,600						5,165	25.8	30	JH
Surr: 4-Bromofluorobenzene	3,500		3,580		96.8	70	130		0	30	H

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

RTI LABORATORIES, INC.

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

QC SUMMARY REPORT

WO#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

BatchID: R42313

Sample ID: **MASS APH MBLK 08** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42313**
Client ID: **PBW** Batch ID: **R42313** TestNo: **MA_APH** Analysis Date: **8/18/2011** SeqNo: **818679**

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

Sample ID: **1107914-014BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42313**
Client ID: **VA0563** Batch ID: **R42313** TestNo: **MA_APH** Analysis Date: **8/18/2011** SeqNo: **818687**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	340,000	940,000						382,000	10.3	30	J
C9-C10 Aromatic Hydrocarbons	ND	1,100,000						0	0	30	
C9-C12 Aliphatic Hydrocarbons	ND	1,500,000						0	0	30	
Surr: 4-Bromofluorobenzene	680,000		716,000		95.5	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#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

BatchID: R42327

Sample ID: **MBLK 081911A VOA** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42327**
Client ID: **PBW** Batch ID: **R42327** TestNo: **MA_APH** Analysis Date: **8/19/2011** SeqNo: **819013**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	100	120									J
C9-C10 Aromatic Hydrocarbons	ND	130									
C9-C12 Aliphatic Hydrocarbons	ND	190									
Surr: 4-Bromofluorobenzene	86		89.50		96.5	70	130				

Sample ID: **1107914-015BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42327**
Client ID: **VA0564** Batch ID: **R42327** TestNo: **MA_APH** Analysis Date: **8/19/2011** SeqNo: **819015**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	20,000	4,700						16,450	18.3	30	H
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	13,000	7,600						11,550	10.8	30	H
Surr: 4-Bromofluorobenzene	3,700		3,580		104	70	130		0	30	H

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

RTI LABORATORIES, INC.

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

QC SUMMARY REPORT

WO#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

BatchID: R42374

Sample ID: **MBLK 082211A VOA** SampType: **MBLK** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42374**
Client ID: **PBW** Batch ID: **R42374** TestNo: **MA_APH** Analysis Date: **8/22/2011** SeqNo: **820145**

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	85		89.50		95.3	70	130				

Sample ID: **1107914-020BDUP** SampType: **DUP** TestCode: **MA_APH** Units: **µg/m³** Prep Date: RunNo: **42374**
Client ID: **VA0569** Batch ID: **R42374** TestNo: **MA_APH** Analysis Date: **8/22/2011** SeqNo: **820147**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
C5-C8 Aliphatic Hydrocarbons	14,000	4,700						13,430	4.74	30	H
C9-C10 Aromatic Hydrocarbons	ND	5,300						0	0	30	H
C9-C12 Aliphatic Hydrocarbons	8,400	7,600						9,010	7.10	30	H
Surr: 4-Bromofluorobenzene	3,700		3,580		102	70	130		0	30	H

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#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16 **BatchID:** R42677

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42677**
Client ID: **PBW** Batch ID: **R42677** TestNo: **ASTM-D2504** Analysis Date: **8/16/2011** SeqNo: **827850**

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: **42677**
Client ID: **LCSW** Batch ID: **R42677** TestNo: **ASTM-D2504** Analysis Date: **8/16/2011** SeqNo: **827852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.7	0.10	2.500	0	107	70	130	2.650	0.639	0	
Carbon Monoxide	2.6	0.10	2.500	0	105	70	130	2.703	3.31	0	
Methane	2.0	0.50	2.000	0	99.4	70	130	2.035	2.34	0	
Nitrogen	2.5	0.10	2.500	0	99.3	70	130	2.601	4.68	0	
Oxygen	2.2	0.10	2.500	0	89.8	70	130	2.313	2.94	0	

Sample ID: **1107914-033adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42677**
Client ID: **VA9041** Batch ID: **R42677** TestNo: **ASTM-D2504** Analysis Date: **8/16/2011** SeqNo: **827859**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	4.1	0.10						4.052	0.713	20	
Carbon Monoxide	0.44	0.10						0.4540	2.68	20	
Methane	0.032	0.50						0.03100	3.17	20	J
Nitrogen	88	0.10						88.49	0.866	20	
Oxygen	6.1	0.10						6.202	0.858	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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QC SUMMARY REPORT

WO#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

BatchID: R42678

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42678**
Client ID: **PBW** Batch ID: **R42678** TestNo: **ASTM-D2504** Analysis Date: **8/17/2011** SeqNo: **827862**

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: **42678**
Client ID: **LCSW** Batch ID: **R42678** TestNo: **ASTM-D2504** Analysis Date: **8/17/2011** SeqNo: **827864**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.2	0.10	2.500	0	87.4	70	130	2.179	0.321	0	
Carbon Monoxide	2.2	0.10	2.500	0	88.4	70	130	2.202	0.363	0	
Methane	1.8	0.50	2.000	0	89.4	70	130	1.755	1.92	0	
Nitrogen	2.7	0.10	2.500	0	109	70	130	2.840	4.35	0	
Oxygen	2.3	0.10	2.500	0	93.6	70	130	2.374	1.40	0	

Sample ID: **1107914-010adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42678**
Client ID: **VA0451** Batch ID: **R42678** TestNo: **ASTM-D2504** Analysis Date: **8/17/2011** SeqNo: **827876**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.079	0.10						0.08200	3.73	20	J
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						77.95	0.142	20	
Oxygen	22	0.10						21.69	0.134	20	

Qualifiers:

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R	RPD outside accepted recovery limits	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

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QC SUMMARY REPORT

WO#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16
BatchID: R42679

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42679**
Client ID: **PBW** Batch ID: **R42679** TestNo: **ASTM-D2504** Analysis Date: **8/18/2011** SeqNo: **827881**

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: **42679**
Client ID: **LCSW** Batch ID: **R42679** TestNo: **ASTM-D2504** Analysis Date: **8/18/2011** SeqNo: **827883**

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	83.8	70	130	2.133	1.80	0	
Carbon Monoxide	2.1	0.10	2.500	0	85.4	70	130	2.179	2.09	0	
Methane	1.7	0.50	2.000	0	86.3	70	130	1.729	0.174	0	
Nitrogen	2.7	0.10	2.500	0	108	70	130	2.789	3.69	0	
Oxygen	2.3	0.10	2.500	0	91.2	70	130	2.334	2.34	0	

Sample ID: **1107914-006adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42679**
Client ID: **VA0427** Batch ID: **R42679** TestNo: **ASTM-D2504** Analysis Date: **8/18/2011** SeqNo: **827893**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.16	0.10						0.1660	4.31	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	78	0.10						78.00	0.131	20	
Oxygen	20	0.10						20.52	0.171	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
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QC SUMMARY REPORT

WO#: 1107914
21-Oct-11

Client: Shaw Environmental & Infrastructure, Inc
Project: Kirtland AFB 140705-SVO16

BatchID: R42680

Sample ID: **mblk** SampType: **MBLK** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42680**
Client ID: **PBW** Batch ID: **R42680** TestNo: **ASTM-D2504** Analysis Date: **8/19/2011** SeqNo: **827896**

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: **42680**
Client ID: **LCSW** Batch ID: **R42680** TestNo: **ASTM-D2504** Analysis Date: **8/19/2011** SeqNo: **827898**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	2.2	0.10	2.500	0	87.0	70	130	2.142	1.53	0	
Carbon Monoxide	2.0	0.10	2.500	0	81.3	70	130	2.128	4.62	0	
Methane	1.6	0.50	2.000	0	82.0	70	130	1.733	5.51	0	
Nitrogen	2.7	0.10	2.500	0	106	70	130	2.762	3.69	0	
Oxygen	2.2	0.10	2.500	0	89.6	70	130	2.307	2.90	0	

Sample ID: **1107914-023adup** SampType: **DUP** TestCode: **ASTM-D2504** Units: **%** Prep Date: RunNo: **42680**
Client ID: **VA0572** Batch ID: **R42680** TestNo: **ASTM-D2504** Analysis Date: **8/19/2011** SeqNo: **827910**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon dioxide	0.15	0.10						0.1520	1.32	20	
Carbon Monoxide	ND	0.10						0	0	20	
Methane	ND	0.50						0	0	20	
Nitrogen	79	0.10						78.60	0.562	20	
Oxygen	20	0.10						20.06	0.552	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: VOA9_110816A **Run No.:** 42263

Analytical Run Date: 8/16/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 081611A	BFB_TUNE	TUNE	R42263	8/16/2011 12:23:00 PM	Celeste Hoitash		
MASS APH ICAL L1	MA_APH	ICAL	R42263	8/16/2011 6:35:00 PM	Celeste Hoitash		
MASS APH ICAL L2	MA_APH	ICAL	R42263	8/16/2011 7:17:00 PM	Celeste Hoitash		
MASS APH ICAL L3	MA_APH	ICAL	R42263	8/16/2011 8:00:00 PM	Celeste Hoitash		
MASS APH ICAL L4	MA_APH	ICAL	R42263	8/16/2011 8:43:00 PM	Celeste Hoitash		
MASS APH ICAL L5	MA_APH	ICAL	R42263	8/16/2011 9:26:00 PM	Celeste Hoitash		
MASS APH ICAL L6	MA_APH	ICAL	R42263	8/16/2011 10:09:00 PM	Celeste Hoitash		
MASS APH ICAL L7	MA_APH	ICAL	R42263	8/16/2011 10:55:00 PM	Celeste Hoitash		
BFB 081611B	BFB_TUNE	TUNE	R42263	8/16/2011 11:36:00 PM	Celeste Hoitash		
MASS APH CCV 081	MA_APH	CCV	R42263	8/17/2011 12:20:00 AM	Celeste Hoitash		
MASS APH RLVS 08	MA_APH	RLVS	R42263	8/17/2011 1:02:00 AM	Celeste Hoitash		
MASS APH MBLK 08	MA_APH	MBLK	R42263	8/17/2011 1:51:00 AM	Celeste Hoitash		
1107914-026B	MA_APH	SAMP	R42263	8/17/2011 4:45:00 AM	Celeste Hoitash		
1107914-033B	MA_APH	SAMP	R42263	8/17/2011 7:00:00 AM	Celeste Hoitash		
1107914-034B	MA_APH	SAMP	R42263	8/17/2011 7:45:00 AM	Celeste Hoitash		
1107914-028B	MA_APH	SAMP	R42263	8/17/2011 9:16:00 AM	Celeste Hoitash		
1107914-029B	MA_APH	SAMP	R42263	8/17/2011 10:01:00 AM	Celeste Hoitash		
1107914-025B	MA_APH	SAMP	R42263	8/17/2011 12:14:00 PM	Celeste Hoitash	H	
1107914-031B	MA_APH	SAMP	R42263	8/17/2011 1:10:00 PM	Celeste Hoitash	H	
1107914-032B	MA_APH	SAMP	R42263	8/17/2011 1:52:00 PM	Celeste Hoitash	H	
1107914-027B	MA_APH	SAMP	R42263	8/17/2011 2:34:00 PM	Celeste Hoitash	H	
1107914-030B	MA_APH	SAMP	R42263	8/17/2011 3:16:00 PM	Celeste Hoitash	H	
1107914-030BDUP	MA_APH	DUP	R42263	8/17/2011 3:59:00 PM	Celeste Hoitash	H	
1107914-001B	MA_APH	SAMP	R42263	8/17/2011 4:41:00 PM	Celeste Hoitash		
RLVS 081611B	MA_APH	RLVS	R42263	8/17/2011 9:54:00 PM	Celeste Hoitash		

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
817559	BFB 081611B	BFB_TUNE	TUNE	\1\DATA\081611	8/16/2011 11:36:	1	R42263		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		75.4	75.4		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.9	7.9		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.7	97.7		0	0	0	0	0	0	0%	93	101	0%	
177	M		6.3	6.3		0	0	0	0	0	0	0%	5	9	0%	
50	M		22.9	22.9		0	0	0	0	0	0	0%	8	40	0%	
75	M		44	44		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
817546	MASS APH CCV 081	MA_APH	CCV	\1\DATA\081611	8/17/2011 12:20:	1	R42263		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	253.37	253.37		222	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	218.56	218.56		185	0	0	0	0	0	118%	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	265.16	265.16		281	0	0	0	0	0	94%	70	130	0%	
C9-C12 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	25.766	189	0	0%	0	0	0%	
C9-C12 Aliphatic-Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C5-C8 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
non C9-C12 - TOTAL	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
Chlorobenzene-d5	I	ppbv	12.5	12.5		12.5	0	0	0	0	0	100%	80	120	0%	
4-Bromofluorobenzene	S	µg/m³	89.3	89.3		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
817547	MASS APH RLVS 08	MA_APH	RLVS	\1\DATA\081611	8/17/2011 1:02:0	1	R42263		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\081611\08161113.D Vial: 2
Acq On : 17 Aug 2011 12:20 am Operator: MICHAEL TRUCHAN
Sample : MASS APH CCV 081611A Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 17 10:42 2011 Quant Results File: 081611V9.RES

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

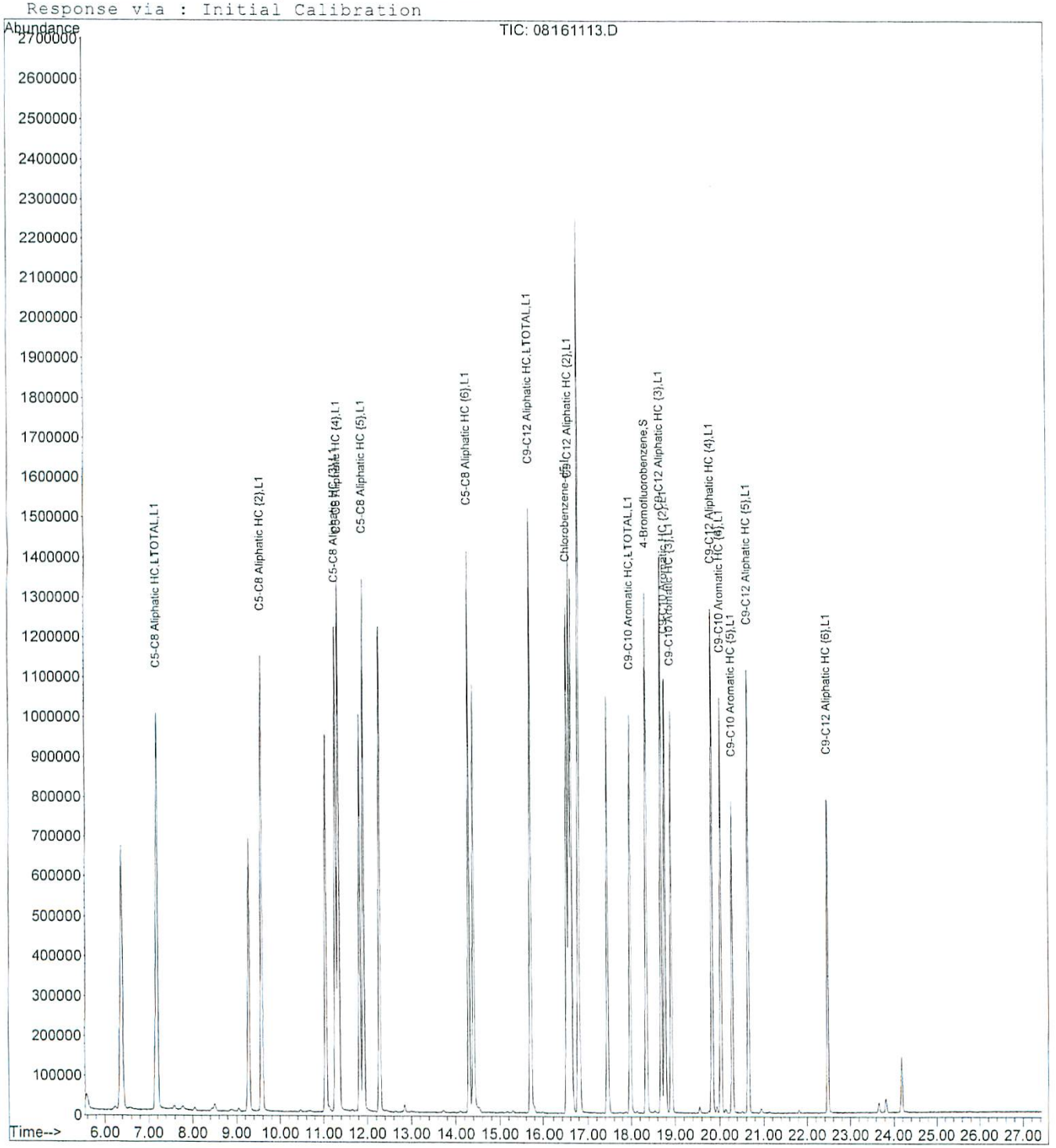
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	934860	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.35	95	635119	89.30	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 99.78%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	3371198	37.84	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.58	TIC	2896901	41.73	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	3118033	41.15	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.36	TIC	3421783	48.88	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.92	TIC	3024005	41.44	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	3051735	41.72	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	18883655m	253.37	ug/m3	
8) C9-C12 Aliphatic HC	15.71	TIC	3673604	46.67	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3264745	43.19	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.69	TIC	2970537	44.88	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2841747	43.86	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2337347	41.29	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1612009	36.15	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.71	TIC	16699989m	265.16	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	231012	40.92	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	279302	46.90	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	374899	44.03	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	81512	47.01	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	252271	39.37	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	212344	46.94	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1431340m	218.56	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081611\08161113.D Vial: 2
Acq On : 17 Aug 2011 12:20 am Operator: MICHAEL TRUCHAN
Sample : MASS APH CCV 081611A Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 17 10:42 2011 Quant Results File: 081611V9.RES

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



RTI Laboratories

Run ID: VOA9_110818A **Run No.:** 42313

Analytical Run Date: 8/18/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42263 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 081811A	BFB_TUNE	TUNE	R42313	8/18/2011 9:31:00 AM	Fred J Hoitash		
MASS APH CCV 081	MA_APH	CCV	R42313	8/18/2011 10:15:00 AM	Fred J Hoitash		
MASS APH RLVS 08	MA_APH	RLVS	R42313	8/18/2011 11:45:00 AM	Fred J Hoitash		
MASS APH MBLK 08	MA_APH	MBLK	R42313	8/18/2011 1:37:00 PM	Fred J Hoitash		
1107914-002B	MA_APH	SAMP	R42313	8/18/2011 2:25:00 PM	Fred J Hoitash	H	
1107914-003B	MA_APH	SAMP	R42313	8/18/2011 3:14:00 PM	Fred J Hoitash	H	
1107914-004B	MA_APH	SAMP	R42313	8/18/2011 4:02:00 PM	Fred J Hoitash	H	
1107914-010B	MA_APH	SAMP	R42313	8/18/2011 4:51:00 PM	Fred J Hoitash	H	
1107914-012B	MA_APH	SAMP	R42313	8/18/2011 5:40:00 PM	Fred J Hoitash	H	
1107914-013B	MA_APH	SAMP	R42313	8/18/2011 6:28:00 PM	Fred J Hoitash	H	
1107914-014B	MA_APH	SAMP	R42313	8/18/2011 7:10:00 PM	Fred J Hoitash		Over-diluted sample. Will re-run at lower dilution. Reported here to show that sample & duplicate were analyzed.
1107914-014BDUP	MA_APH	DUP	R42313	8/18/2011 7:52:00 PM	Fred J Hoitash		Over-diluted sample. Will re-run at lower dilution. Reported here to show that sample & duplicate were analyzed.
1107914-008B	MA_APH	SAMP	R42313	8/19/2011 12:23:00 AM	Fred J Hoitash		
1107914-009B	MA_APH	SAMP	R42313	8/19/2011 1:08:00 AM	Fred J Hoitash		
1107914-011B	MA_APH	SAMP	R42313	8/19/2011 1:53:00 AM	Fred J Hoitash		
MASS APH RLVS 08	MA_APH	RLVS	R42313	8/19/2011 4:06:00 AM	Fred J Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42313

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
818692	BFB 081811A	BFB_TUNE	TUNE	.\1\DATA\081811	8/18/2011 9:31:0	1	R42313		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		76	76		0	0	0	0	0	0	0%	50	120	0%	
175	M		8	8		0	0	0	0	0	0	0%	4	9	0%	
176	M		97.7	97.7		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		24.5	24.5		0	0	0	0	0	0	0%	8	40	0%	
75	M		47.7	47.7		0	0	0	0	0	0	0%	30	66	0%	
95	M		100	100		0	0	0	0	0	0	0%	100	100	0%	
96	M		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
818677	MASS APH CCV 081	MA_APH	CCV	.\1\DATA\081811	8/18/2011 10:15:	1	R42313		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	221.01	221.01		222	0	0	0	0	0	100%	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	207.31	207.31		185	0	0	0	0	0	112%	70	130	0%	
C9-C10 Aromatic Hydrocarbons	A	µg/m³		0		0	0	0	35.658	133	0	0%	0	0	0%	
C9-C12 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C9-C12 Aliphatic HC - TOTAL	A	µg/m³	250.17	250.17		221	0	0	0	0	0	113%	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	91.77	91.77		89.5	0	0	0	0	0	103%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081811\08181102.D Vial: 2
Acq On : 18 Aug 2011 10:15 am Operator: RACHEL HILL
Sample : MASS APH CCV 081811A Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 9:22 2011 Quant Results File: 081611V9.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	723777	12.50	ug/m3	0.00

System Monitoring Compounds

41) 4-Bromofluorobenzene	18.35	95	505304	91.77	ug/m3	0.00

Spiked Amount 89.500 Range 70 - 130 Recovery = 102.54%

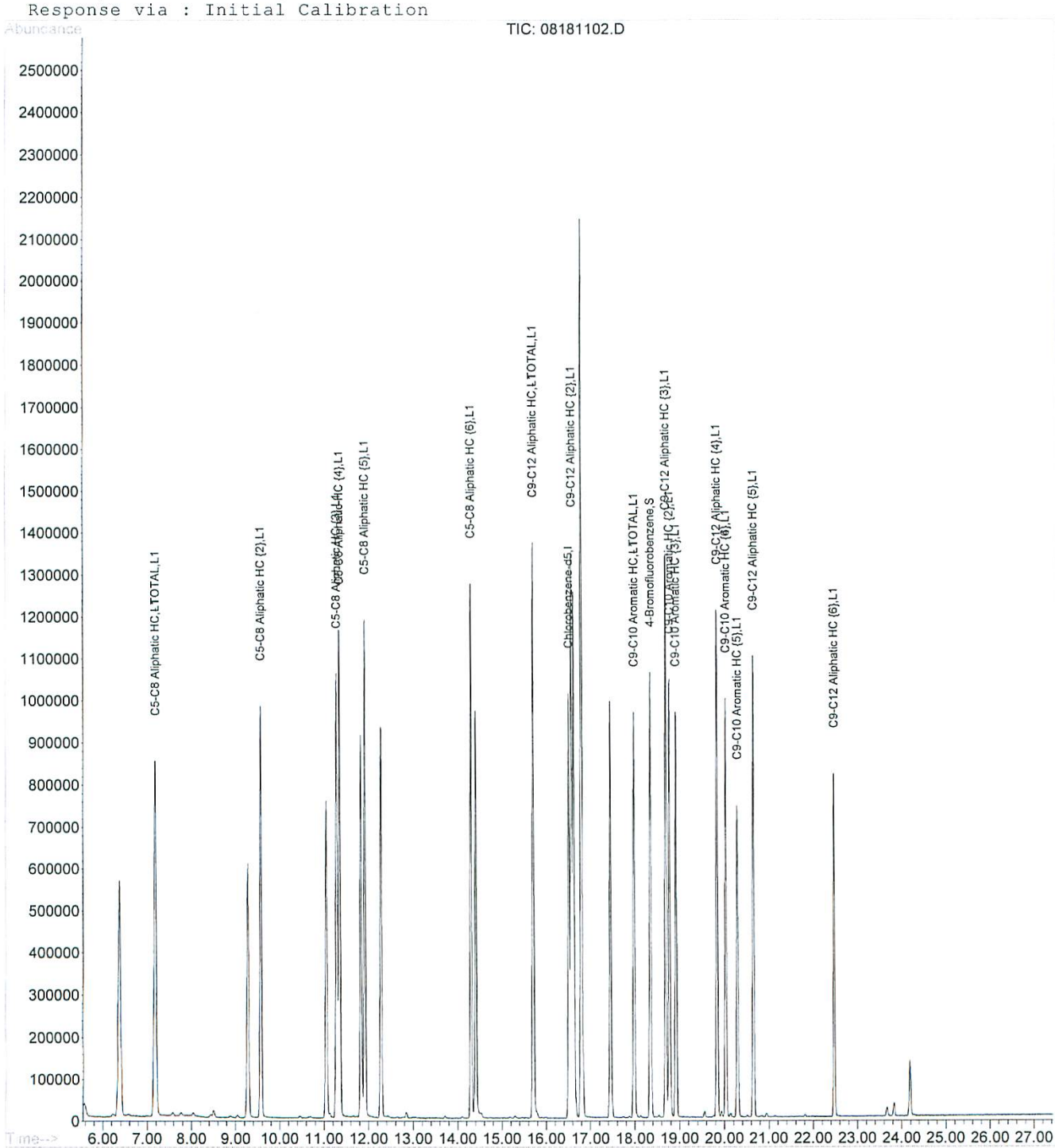
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	2902619	32.58	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2478845	35.71	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2653684	35.02	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	3066755	43.80	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.92	TIC	2680842	36.74	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2689420	36.77	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	16472165m	221.01	ug/m3	
8) C9-C12 Aliphatic HC	15.71	TIC	3293959	41.84	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	2974919	39.36	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.69	TIC	2839696	42.90	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2711860	41.85	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2279742	40.27	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1655474	37.13	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.71	TIC	15755650m	250.17	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	215581	38.18	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	264738	44.46	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	356761	41.90	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	77167	44.50	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	238690	37.25	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	204694	45.25	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1357631m	207.31	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081811\08181102.D Vial: 2
Acq On : 18 Aug 2011 10:15 am Operator: RACHEL HILL
Sample : MASS APH CCV 081811A Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 9:22 2011 Quant Results File: 081611V9.RES

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



RTI Laboratories

Run ID: VOA9_110819A

Run No.: 42327

Analytical Run Date: 8/19/2011

InstrumentID: VOA9

Analyst: Rachel Hill

Column:

Calibration ID: 42263

Column ID:

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 081911A VOA9	BFB_TUNE	TUNE	R42327	8/19/2011 9:37:00 AM	Fred J Hoitash		
CCV 081911A VOA9	MA_APH	CCV	R42327	8/19/2011 10:21:00 AM	Fred J Hoitash		
RLVS 081911A VOA	MA_APH	RLVS	R42327	8/19/2011 11:03:00 AM	Fred J Hoitash		
MBLK 081911A VOA	MA_APH	MBLK	R42327	8/19/2011 11:55:00 AM	Fred J Hoitash		
1107914-015B	MA_APH	SAMP	R42327	8/19/2011 12:37:00 PM	Fred J Hoitash	H	
1107914-015BDUP	MA_APH	DUP	R42327	8/19/2011 1:19:00 PM	Fred J Hoitash	H	
1107914-016B	MA_APH	SAMP	R42327	8/19/2011 2:01:00 PM	Fred J Hoitash	H	
1107914-017B	MA_APH	SAMP	R42327	8/19/2011 2:43:00 PM	Fred J Hoitash	H	
1107914-005B	MA_APH	SAMP	R42327	8/19/2011 3:25:00 PM	Fred J Hoitash		
1107914-006B	MA_APH	SAMP	R42327	8/19/2011 4:07:00 PM	Fred J Hoitash		
1107914-007B	MA_APH	SAMP	R42327	8/19/2011 4:49:00 PM	Fred J Hoitash		
1107914-018B	MA_APH	SAMP	R42327	8/19/2011 5:31:00 PM	Fred J Hoitash		
1107914-019B	MA_APH	SAMP	R42327	8/19/2011 6:19:00 PM	Fred J Hoitash		
1108344-016A	MA_APH	SAMP	R42327	8/20/2011 2:48:00 AM	Fred J Hoitash		
RLVS 081911B VOA	MA_APH	RLVS	R42327	8/20/2011 3:29:00 AM	Fred J Hoitash		

RTI Laboratories

ANALYTICAL RUN Summary

RunNo 42327

20-Oct-11

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
819427	BFB 081911A VOA9	BFB_TUNE	TUNE	\1\DATA\081911	8/19/2011 9:37:0	1	R42327		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		76.5	76.5		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		96	96		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		23.9	23.9		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		6.6	6.6		0	0	0	0	0	0	0%	5	9	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
819011	CCV 081911A VOA9	MA_APH	CCV	\1\DATA\081911	8/19/2011 10:21:	1	R42327		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	224.24	224.24		222	0	0	0	0	0	101%	70	130	0%	
C5-C8 Aliphatic Hydrocarbons	A	µg/m³		0		0	0	0	29.876	117	0	0%	0	0	0%	
C9-C10 Aromatic HC - TOTAL	A	µg/m³	218.09	218.09		185	0	0	0	0	0	118%	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	261.91	261.91		221	0	0	0	0	0	119%	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	93.16	93.16		89.5	0	0	0	0	0	104%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\081911\08191102.D Vial: 2
Acq On : 19 Aug 2011 10:21 am Operator: RACHEL HILL
Sample : CCV 081911A VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 14:04 2011 Quant Results File: 081611V9.RES

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

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	685741	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.35	95	486038	93.16	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 104.09%			

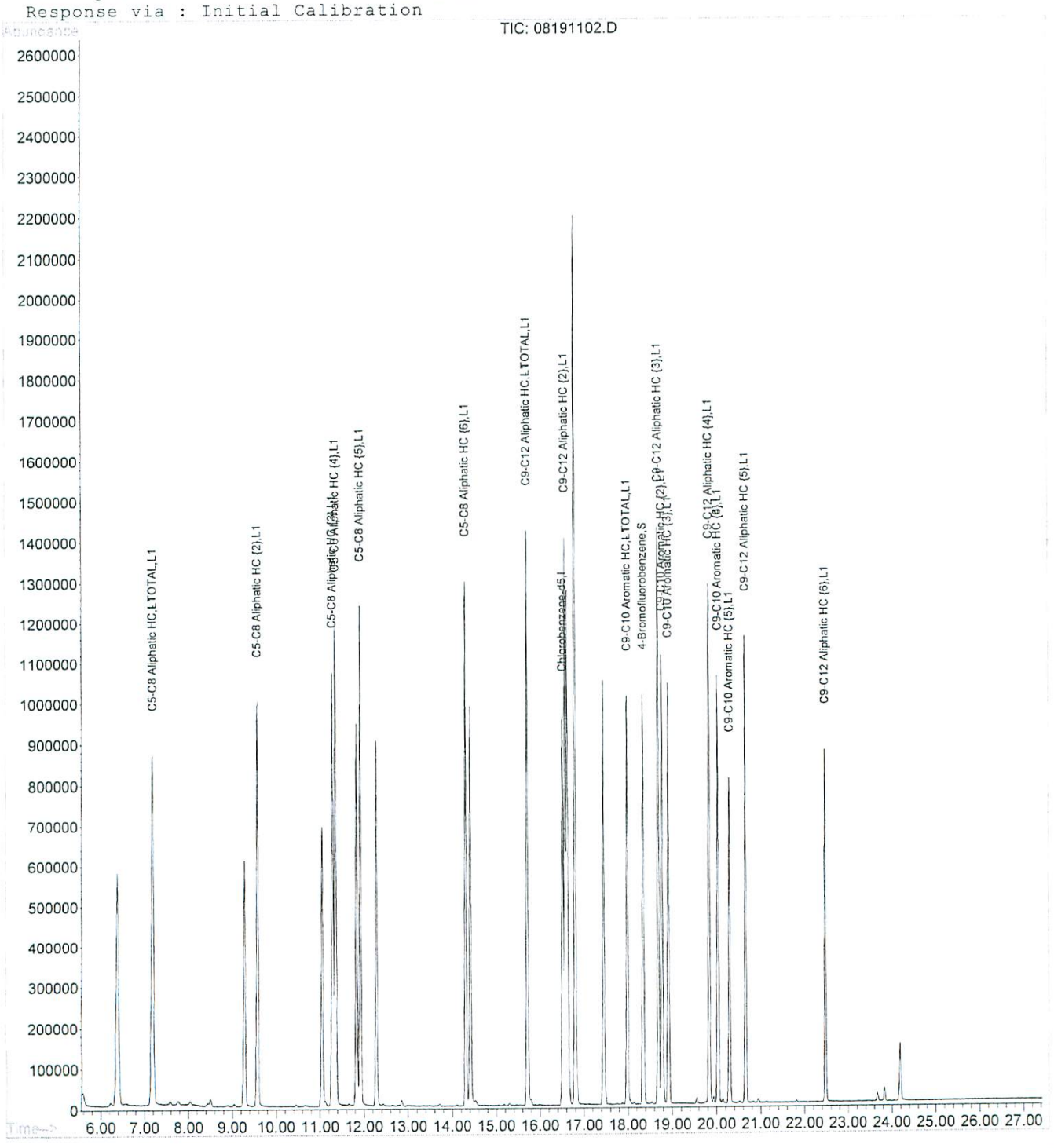
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	2923456	32.82	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2506538	36.10	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2730417	36.03	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	3074498	43.92	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.92	TIC	2737548	37.52	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2739864	37.46	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	16712321m	224.24	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3376997	42.90	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3214933	42.53	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.69	TIC	2951982	44.60	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2835867	43.77	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2390252	42.22	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1725141	38.69	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	16495172m	261.91	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	226280	40.08	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	277356	46.58	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	376093	44.17	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	81236	46.85	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	253218	39.52	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	214057	47.32	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1428240m	218.09	ug/m3	

(#) = qualifier out of range (m) = manual integration
08191102.D 081611V9.M Thu Oct 20 10:48:21 2011

Quantitation Report

Data File : C:\HPCHEM\1\DATA\081911\08191102.D Vial: 2
Acq On : 19 Aug 2011 10:21 am Operator: RACHEL HILL
Sample : CCV 081911A VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 19 14:04 2011 Quant Results File: 081611V9.RES

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



RTI Laboratories

Run ID: VOA9_110822A **Run No.:** 42374

Analytical Run Date: 8/22/2011 **InstrumentID:** VOA9

Analyst: Rachel Hill **Column:**

Calibration ID: 42263 **Column ID:**

Column Length:

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
BFB 082211A VOA9	BFB_TUNE	TUNE	R42374	8/22/2011 10:29:00 AM			
CCV 082211A VOA9	MA_APH	CCV	R42374	8/22/2011 11:13:00 AM			
RLVS 082211A VOA	MA_APH	RLVS	R42374	8/22/2011 11:59:00 AM			
MBLK 082211A VOA	MA_APH	MBLK	R42374	8/22/2011 1:38:00 PM			
1107914-020B	MA_APH	SAMP	R42374	8/22/2011 2:20:00 PM		H	
1107914-020BDUP	MA_APH	DUP	R42374	8/22/2011 3:02:00 PM		H	
1107914-021B	MA_APH	SAMP	R42374	8/22/2011 3:44:00 PM		H	
1107914-022B	MA_APH	SAMP	R42374	8/22/2011 4:24:00 PM		H	
1107914-023B	MA_APH	SAMP	R42374	8/22/2011 5:06:00 PM		H	
1108344-022A	MA_APH	SAMP	R42374	8/22/2011 5:48:00 PM			
1108344-023A	MA_APH	SAMP	R42374	8/22/2011 6:31:00 PM			
1108344-024A	MA_APH	SAMP	R42374	8/22/2011 7:12:00 PM			
1108344-025A	MA_APH	SAMP	R42374	8/22/2011 7:54:00 PM			
1108344-026A	MA_APH	SAMP	R42374	8/22/2011 8:37:00 PM			
1108344-015A	MA_APH	SAMP	R42374	8/22/2011 9:18:00 PM			
1108344-017A	MA_APH	SAMP	R42374	8/22/2011 10:07:00 PM			
RLVS 082211B VOA	MA_APH	RLVS	R42374	8/23/2011 3:41:00 AM			

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42374

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
851845	BFB 082211A VOA9	BFB_TUNE	TUNE	\1\DATA\082211	8/22/2011 10:29:	1	R42374		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		77	77		0	0	0	0	0	0	0%	50	120	0%	
175	M		7.8	7.8		0	0	0	0	0	0	0%	4	9	0%	
176	M		96.1	96.1		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		23.1	23.1		0	0	0	0	0	0	0%	8	40	0%	
75	M		44.6	44.6		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		6.5	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
820143	CCV 082211A VOA9	MA_APH	CCV	\1\DATA\082211	8/22/2011 11:13:	1	R42374		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C5-C8 Aliphatic	A	µg/m³		0		0	0	0	0	0	0	0%	0	0	0%	
C5-C8 Aliphatic HC - TOTAL	A	µg/m³	241.24	241.24		222	0	0	0	0	0	109%	70	130	0%	M
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	232.48	232.48		185	0	0	0	0	0	126%	70	130	0%	M
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	269.99	269.99		221	0	0	0	0	0	122%	70	130	0%	M
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	91.97	91.97		89.5	0	0	0	0	0	103%	70	130	0%	

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\082211\08221102.D Vial: 2
Acq On : 22 Aug 2011 11:13 am Operator: RACHEL HILL
Sample : CCV 082211A VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 22 15:51 2011 Quant Results File: 081611V9.RES

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

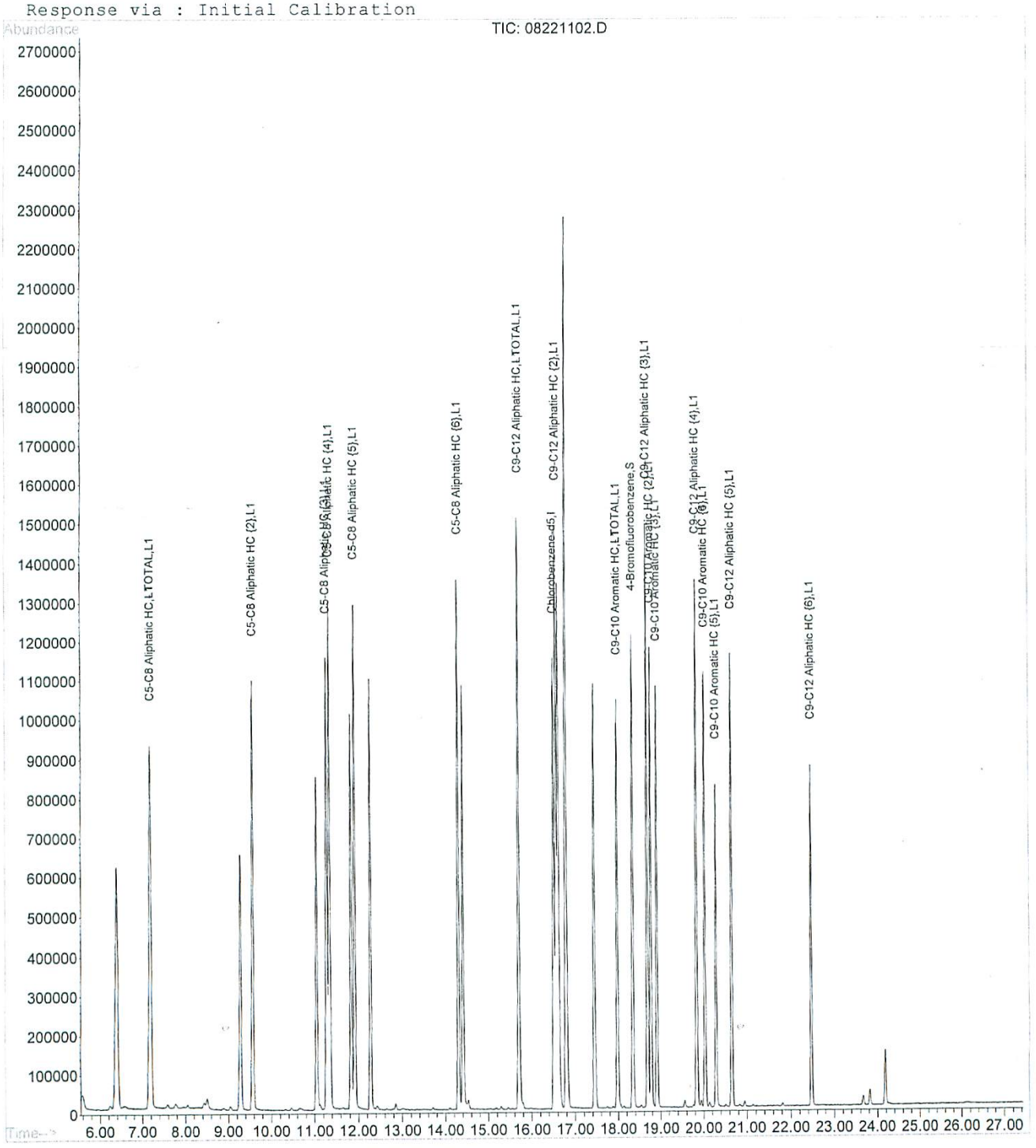
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
40) Chlorobenzene-d5	16.51	117	846124	12.50	ug/m3	0.00
System Monitoring Compounds						
41) 4-Bromofluorobenzene	18.34	95	592016	91.97	ug/m3	0.00
Spiked Amount 89.500	Range 70 - 130		Recovery = 102.76%			
Target Compounds						Qvalue
1) C5-C8 Aliphatic HC	7.18	TIC	3167841	35.56	ug/m3	100
2) C5-C8 Aliphatic HC {2}	9.57	TIC	2734051	39.38	ug/m3	100
3) C5-C8 Aliphatic HC {3}	11.28	TIC	2937784	38.77	ug/m3	100
4) C5-C8 Aliphatic HC {4}	11.35	TIC	3318124	47.40	ug/m3	100
5) C5-C8 Aliphatic HC {5}	11.91	TIC	2905760	39.82	ug/m3	100
6) C5-C8 Aliphatic HC {6}	14.30	TIC	2916432	39.87	ug/m3	100
7) C5-C8 Aliphatic HC - TOTAL	7.18	TIC	17979992m	241.24	ug/m3	
8) C9-C12 Aliphatic HC	15.70	TIC	3583872	45.53	ug/m3	100
9) C9-C12 Aliphatic HC {2}	16.57	TIC	3191503	42.22	ug/m3	100
10) C9-C12 Aliphatic HC {3}	18.68	TIC	3067546	46.35	ug/m3	100
11) C9-C12 Aliphatic HC {4}	19.83	TIC	2950191	45.53	ug/m3	100
12) C9-C12 Aliphatic HC {5}	20.65	TIC	2458602	43.43	ug/m3	100
13) C9-C12 Aliphatic HC {6}	22.47	TIC	1752280	39.30	ug/m3	100
14) C9-C12 Aliphatic HC - TOTA	15.70	TIC	17003994m	269.99	ug/m3	
15) C9-C10 Aromatic HC	17.98	120	239482	42.42	ug/m3	100
16) C9-C10 Aromatic HC {2}	18.77	120	297816	50.01	ug/m3	100
17) C9-C10 Aromatic HC {3}	18.91	120	400003	46.97	ug/m3	100
18) C9-C10 Aromatic HC {4}	20.03	120	86727	50.02	ug/m3	100
19) C9-C10 Aromatic HC {5}	20.29	120	268608	41.92	ug/m3	100
20) C9-C10 Aromatic HC {6}	20.03	134	229863	50.82	ug/m3	100
21) C9-C10 Aromatic HC - TOTAL	17.98	TIC	1522499m	232.48	ug/m3	

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\082211\08221102.D Vial: 2
Acq On : 22 Aug 2011 11:13 am Operator: RACHEL HILL
Sample : CCV 082211A VOA9 Inst : GC/MS Ins
Misc : CCV MA_APH Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Aug 22 15:51 2011 Quant Results File: 081611V9.RES

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



Response Factor Report GC/MS Ins

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

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

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

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

Compound List Report GC/MS Ins

Method : C:\HPCHEM\1\METHODS\081611V9.M (RTE Integrator)
Title : MASS APH
Last Update : Wed Aug 17 10:38:55 2011
Response via : Initial Calibration
Total Cpnds : 41

PK#	Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1 L1	C5-C8 Aliphatic HC	TIC	7.21	1.000	A	0	A	B
2 L1	C5-C8 Aliphatic HC {2}	TIC	9.59	1.000	A	0	A	B
3 L1	C5-C8 Aliphatic HC {3}	TIC	11.30	1.000	A	0	A	B
4 L1	C5-C8 Aliphatic HC {4}	TIC	11.37	1.000	A	0	A	B
5 L1	C5-C8 Aliphatic HC {5}	TIC	11.93	1.000	A	0	A	B
6 L1	C5-C8 Aliphatic HC {6}	TIC	14.31	1.000	A	0	A	B
7 L1	C5-C8 Aliphatic HC - TOTAL	TIC	7.00	1.000	A	0	A	B
8 L1	C9-C12 Aliphatic HC	TIC	15.71	1.000	A	0	A	B
9 L1	C9-C12 Aliphatic HC {2}	TIC	16.58	1.000	A	0	A	B
10 L1	C9-C12 Aliphatic HC {3}	TIC	18.69	1.000	A	0	A	B
11 L1	C9-C12 Aliphatic HC {4}	TIC	19.84	1.000	A	0	A	B
12 L1	C9-C12 Aliphatic HC {5}	TIC	20.66	1.000	A	0	A	B
13 L1	C9-C12 Aliphatic HC {6}	TIC	22.48	1.000	A	0	A	B
14 L1	C9-C12 Aliphatic HC - TOTAL	TIC	15.71	1.000	A	0	A	B
15 L1	C9-C10 Aromatic HC	120	17.99	1.000	A	0	A	B
16 L1	C9-C10 Aromatic HC {2}	120	18.78	1.000	A	0	A	B
17 L1	C9-C10 Aromatic HC {3}	120	18.92	1.000	A	0	A	B
18 L1	C9-C10 Aromatic HC {4}	120	20.04	1.000	A	0	A	B
19 L1	C9-C10 Aromatic HC {5}	120	20.30	1.000	A	0	A	B
20 L1	C9-C10 Aromatic HC {6}	134	20.04	1.000	A	0	A	B
21 L1	C9-C10 Aromatic HC - TOTAL	TIC	17.99	1.000	A	0	A	B
22	C5-C8 Aliphatic	TIC	7.00	1.000	A	0	A	B
23 L1	non C5-C8	TIC	6.41	1.000	A	0	A	B
24 L1	non C5-C8 {2}	TIC	9.30	1.000	A	0	A	B
25 L1	non C5-C8 {3}	TIC	11.07	1.000	A	0	A	B
26 L1	non C5-C8 {4}	TIC	11.84	1.000	A	0	A	B
27 L1	non C5-C8 {5}	TIC	12.29	1.000	A	0	A	B
28 L1	non C5-C8 {6}	TIC	14.42	1.000	A	0	A	B
29 L1	non C5-C8 - TOTAL	TIC	6.41	1.000	A	0	A	B
30	C9-C12 Aliphatic	TIC	16.54	1.000	A	0	A	B
31 L1	non C9-C12	TIC	16.52	1.000	A	0	A	B
32 L1	non C9-C12 {2}	TIC	16.63	1.000	A	0	A	B
33 L1	non C9-C12 {3}	TIC	16.80	1.000	A	0	A	B
34 L1	non C9-C12 {4}	TIC	17.45	1.000	A	0	A	B
35 L1	non C9-C12 {5}	TIC	18.35	1.000	A	0	A	B
36 L1	non C9-C12 - TOTAL	TIC	16.52	1.000	A	0	A	B
37 L1	C9-C10 Aromatic	120	17.62	1.000	A	0	A	B
38 L1	C9-C10 Aromatic {2}	134	17.62	1.000	A	0	A	B
39 L1	C9-C10 Aromatic - TOTAL	134	0.00	1.000	A	1	A	B
40 I	Chlorobenzene-d5	117	16.52	1.000	A	2	A	B
41 S	4-Bromofluorobenzene	95	18.35	1.111	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

081611V9.M Fri Sep 30 11:38:06 2011

RTI Laboratories

Run ID: GC-TCD 1_110816A **Run No.:** 42677

Analytical Run Date: 8/16/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R42677	8/16/2011 2:50:00 PM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R42677	8/16/2011 3:36:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R42677	8/16/2011 4:19:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R42677	8/16/2011 5:01:00 PM	Robert Lynch		
1107914-025a	ASTM-D2504	SAMP	R42677	8/16/2011 5:35:00 PM	Robert Lynch		
1107914-026a	ASTM-D2504	SAMP	R42677	8/16/2011 5:53:00 PM	Robert Lynch		
1107914-031a	ASTM-D2504	SAMP	R42677	8/16/2011 6:12:00 PM	Robert Lynch		
1107914-032a	ASTM-D2504	SAMP	R42677	8/16/2011 6:32:00 PM	Robert Lynch		
1107914-033a	ASTM-D2504	SAMP	R42677	8/16/2011 7:04:00 PM	Robert Lynch		
1107914-033adup	ASTM-D2504	DUP	R42677	8/16/2011 7:22:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R42677	8/16/2011 7:55:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R42677	8/16/2011 8:14:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42677

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827850	mblk	ASTM-D2504	MBLK	ATA\081611\0816	8/16/2011 2:50:0	1	R42677		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
827851	ccv std 1-2 a	ASTM-D2504	CCV	ATA\081611\0816	8/16/2011 3:36:0	1	R42677		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.65	2.65		2.5	0	0	0.025	0.1	0	106%	85	115	0%	
Carbon Monoxide	A	%	2.703	2.703		2.5	0	0	0.025	0.1	0	108%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	2.035	2.035		2	0	0	0.025	0.5	0	102%	85	115	0%	
Nitrogen	A	%	2.601	2.601		2.5	0	0	0.025	0.1	0	104%	85	115	0%	
Oxygen	A	%	2.313	2.313		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
827852	lcs	ASTM-D2504	LCS	ATA\081611\0816	8/16/2011 4:19:0	1	R42677		0	827851	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.667	2.667		2.5	0	2.65	0.025	0.1	0	107%	70	130	1%	
Carbon Monoxide	A	%	2.615	2.615		2.5	0	2.703	0.025	0.1	0	105%	70	130	3%	
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	%	1.988	1.988		2	0	2.035	0.025	0.5	0	99%	70	130	2%	
Nitrogen	A	%	2.482	2.482		2.5	0	2.601	0.025	0.1	0	99%	70	130	5%	
Oxygen	A	%	2.246	2.246		2.5	0	2.313	0.025	0.1	0	90%	70	130	3%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827858	1107914-033a (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\081611\0816	8/16/2011 7:04:0	1	R42677		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	6.202	6.202		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
827859	1107914-033adup	ASTM-D2504	DUP	ıTA\081611\0816	8/16/2011 7:22:0	1	R42677		0	827858	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	4.081	4.081		0	0	4.052	0.025	0.1	0	0%	0	0	1%	
Carbon Monoxide	A	%	0.442	0.442		0	0	0.454	0.025	0.1	0	0%	0	0	3%	
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	%	0.032	0.032		0	0	0.031	0.025	0.5	0	0%	0	0	3%	J
Nitrogen	A	%	87.725	87.725		0	0	88.488	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	6.149	6.149		0	0	6.202	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
827860	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\081611\0816	8/16/2011 7:55:0	1	R42677		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.538	2.538		2.5	0	0	0.025	0.1	0	102%	85	115	0%	
Carbon Monoxide	A	%	2.534	2.534		2.5	0	0	0.025	0.1	0	101%	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	%	2.053	2.053		2	0	0	0.025	0.5	0	103%	85	115	0%	
Nitrogen	A	%	2.663	2.663		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.266	2.266		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
827861	crql std 2% b	ASTM-D2504	CRQL	ıTA\081611\0816	8/16/2011 8:14:0	1	R42677		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.243	0.243		0.3	0	0	0.025	0.1	0	81%	80	120	0%	
Carbon Monoxide	A	%	0.131	0.131		0.14	0	0	0.025	0.1	0	94%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\081611\08161102.D Vial: 1
Acq On : 16 Aug 2011 3:36 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	2.313	7.5	0	0.03
2	Nitrogen	2.500	2.601	-4.0	0	0.02
3	Carbon Monoxide	2.500	2.703	-8.1	0	-0.02
4	Methane	2.000	2.035	-1.8	0	-0.03
5	Carbon dioxide	2.500	2.650	-6.0	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\081611\08161102.D Vial: 1
Acq On : 16 Aug 2011 3:36 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 12:37:33 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081611\08161102.D Vial: 1
Acq On : 16 Aug 2011 3:36 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Aug 19 14:37 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

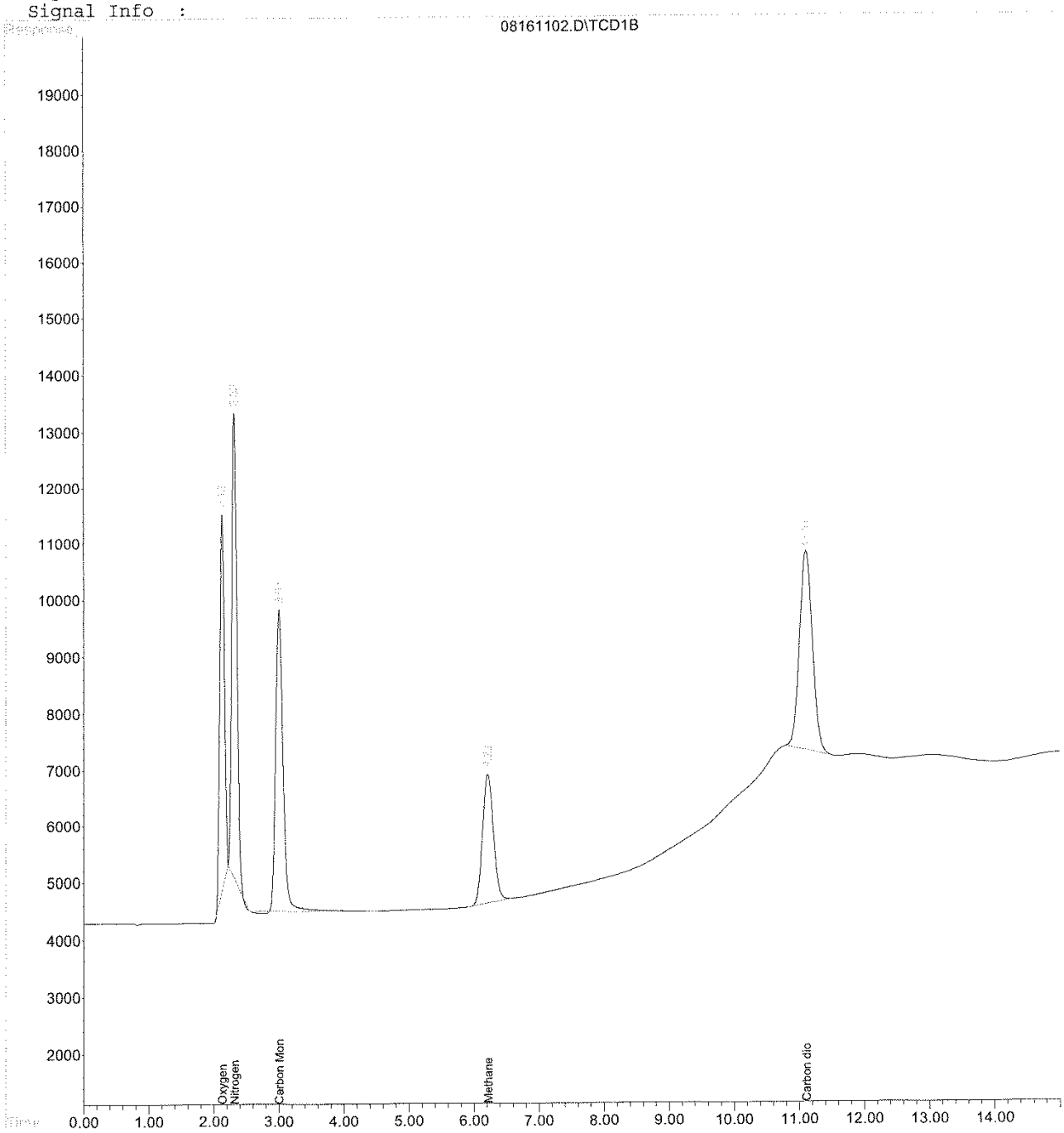
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.13	331322	2.313	%
2)	Nitrogen	2.32	448051	2.601	%
3)	Carbon Monoxide	3.01	425658	2.703	%
4)	Methane	6.22	262521	2.035	%
5)	Carbon dioxide	11.11	481150	2.650	%

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081611\08161102.D Vial: 1
Acq On : 16 Aug 2011 3:36 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 19 14:37 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\081611\08161111.D          Vial: 1
Acq On    : 16 Aug 2011   7:55 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	2.266	9.4	0	0.04
2	Nitrogen	2.500	2.663	-6.5	0	0.02
3	Carbon Monoxide	2.500	2.534	-1.4	0	-0.01
4	Methane	2.000	2.053	-2.6	0	-0.03
5	Carbon dioxide	2.500	2.538	-1.5	0	-0.06

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\081611\08161111.D          Vial: 1
Acq On    : 16 Aug 2011   7:55 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 12:37:50 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081611\08161111.D Vial: 1
Acq On : 16 Aug 2011 7:55 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Aug 19 16:02 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

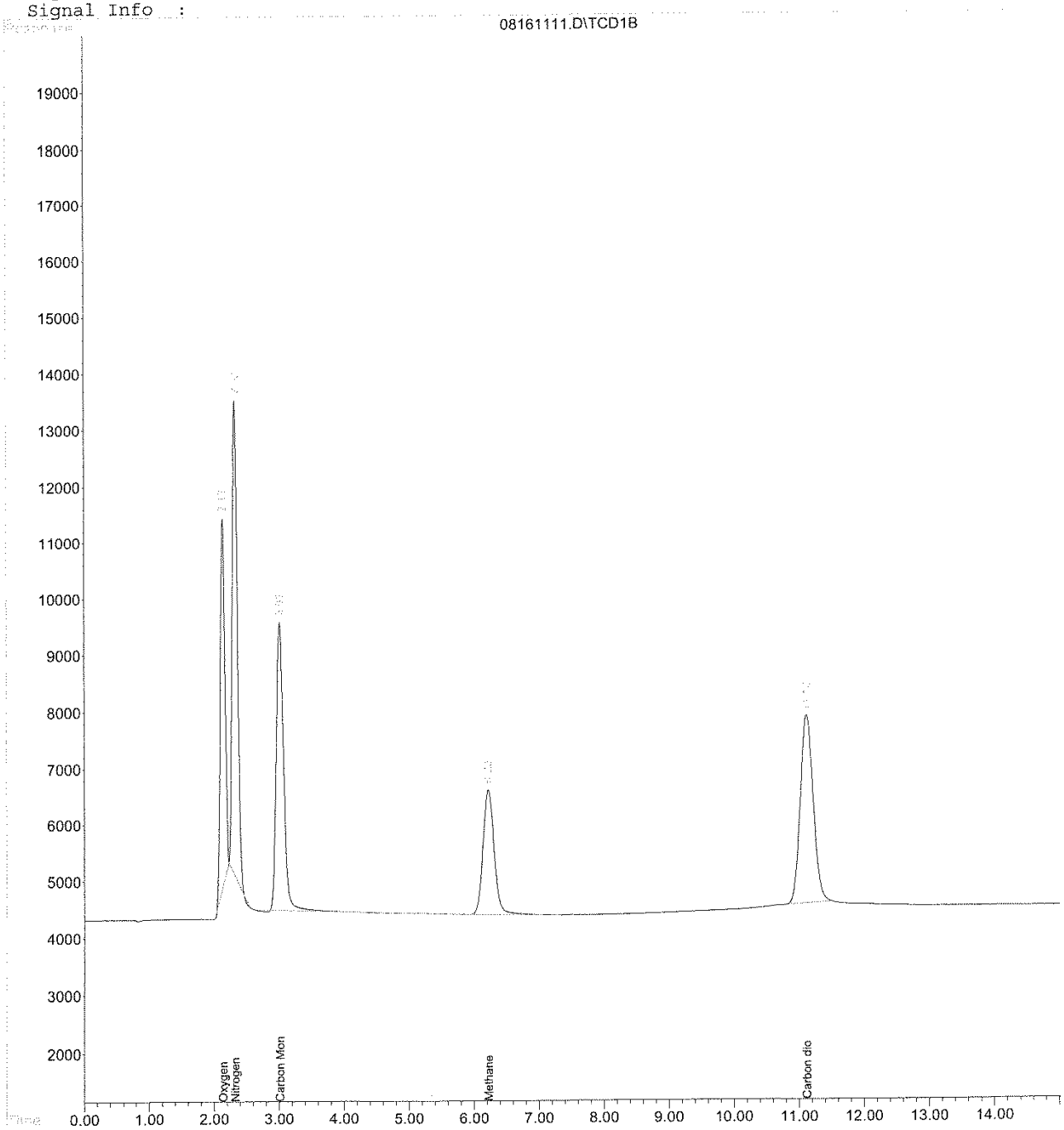
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.14	324600	2.266 %
2)	Nitrogen	2.32	458828	2.663 %
3)	Carbon Monoxide	3.01	399141	2.534 %
4)	Methane	6.22	265032	2.053 %
5)	Carbon dioxide	11.12	460002	2.538 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081611\08161111.D Vial: 1
Acq On : 16 Aug 2011 7:55 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 19 16:02 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110817A **Run No.:** 42678

Analytical Run Date: 8/17/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R42678	8/17/2011 10:58:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R42678	8/17/2011 11:29:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R42678	8/17/2011 11:49:00 AM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R42678	8/17/2011 12:11:00 PM	Robert Lynch		
1107914-034a	ASTM-D2504	SAMP	R42678	8/17/2011 12:32:00 PM	Robert Lynch		
1107914-027a	ASTM-D2504	SAMP	R42678	8/17/2011 12:55:00 PM	Robert Lynch		
1107914-028a	ASTM-D2504	SAMP	R42678	8/17/2011 2:27:00 PM	Robert Lynch		
1107914-029a	ASTM-D2504	SAMP	R42678	8/17/2011 2:53:00 PM	Robert Lynch		
1107914-030a	ASTM-D2504	SAMP	R42678	8/17/2011 3:28:00 PM	Robert Lynch		
1107914-001a	ASTM-D2504	SAMP	R42678	8/17/2011 3:47:00 PM	Robert Lynch		
1107914-002a	ASTM-D2504	SAMP	R42678	8/17/2011 4:24:00 PM	Robert Lynch		
1107914-003a	ASTM-D2504	SAMP	R42678	8/17/2011 4:43:00 PM	Robert Lynch		
1107914-004a	ASTM-D2504	SAMP	R42678	8/17/2011 5:22:00 PM	Robert Lynch		
1107914-010a	ASTM-D2504	SAMP	R42678	8/17/2011 5:47:00 PM	Robert Lynch		
1107914-010adup	ASTM-D2504	DUP	R42678	8/17/2011 6:27:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R42678	8/17/2011 6:56:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R42678	8/17/2011 7:19:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42678

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827862	mblk	ASTM-D2504	MBLK	ATA\081711\0817	8/17/2011 10:58:	1	R42678		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
827863	ccv std 1-2 a	ASTM-D2504	CCV	ATA\081711\0817	8/17/2011 11:29:	1	R42678		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.179	2.179		2.5	0	0	0.025	0.1	0	87%	85	115	0%	
Carbon Monoxide	A	%	2.202	2.202		2.5	0	0	0.025	0.1	0	88%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	1.755	1.755		2	0	0	0.025	0.5	0	88%	85	115	0%	
Nitrogen	A	%	2.84	2.84		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.374	2.374		2.5	0	0	0.025	0.1	0	95%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827864	lcs	ASTM-D2504	LCS	ATA\081711\0817	8/17/2011 11:49:	1	R42678		0	827863	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.186	2.186		2.5	0	2.179	0.025	0.1	0	87%	70	130	0%	
Carbon Monoxide	A	%	2.21	2.21		2.5	0	2.202	0.025	0.1	0	88%	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	%	1.789	1.789		2	0	1.755	0.025	0.5	0	89%	70	130	2%	
Nitrogen	A	%	2.719	2.719		2.5	0	2.84	0.025	0.1	0	109%	70	130	4%	
Oxygen	A	%	2.341	2.341		2.5	0	2.374	0.025	0.1	0	94%	70	130	1%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827875	1107914-010a (Container-01 of 01)	ASTM-D2504	SAMP	ATA\081711\0817	8/17/2011 5:47:0	1	R42678		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	21.69	21.69		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
827876	1107914-010adup	ASTM-D2504	DUP	ATA\081711\0817	8/17/2011 6:27:0	1	R42678		0	827875	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.079	0.079		0	0	0.082	0.025	0.1	0	0%	0	0	4%	J
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	78.065	78.065		0	0	77.954	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	21.719	21.719		0	0	21.69	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
827877	ccv std 1-2 b	ASTM-D2504	CCV	ATA\081711\0817	8/17/2011 6:56:0	1	R42678		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.182	2.182		2.5	0	0	0.025	0.1	0	87%	85	115	0%	
Carbon Monoxide	A	%	2.229	2.229		2.5	0	0	0.025	0.1	0	89%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	1.804	1.804		2	0	0	0.025	0.5	0	90%	85	115	0%	
Nitrogen	A	%	2.843	2.843		2.5	0	0	0.025	0.1	0	114%	85	115	0%	
Oxygen	A	%	2.403	2.403		2.5	0	0	0.025	0.1	0	96%	85	115	0%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827878	crql std 2% b	ASTM-D2504	CRQL	ATA\081711\0817	8/17/2011 7:19:0	1	R42678		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.257	0.257		0.3	0	0	0.025	0.1	0	86%	80	120	0%	
Carbon Monoxide	A	%	0.12	0.12		0.14	0	0	0.025	0.1	0	86%	80	120	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\081711\08171102.D Vial: 1
Acq On : 17 Aug 2011 11:29 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	2.374	5.0	0	0.03
2	Nitrogen	2.500	2.840	-13.6	0	0.02
3	Carbon Monoxide	2.500	2.202	11.9	0	-0.01
4	Methane	2.000	1.755	12.3	0	-0.02
5	Carbon dioxide	2.500	2.179	12.8	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\081711\08171102.D Vial: 1
Acq On : 17 Aug 2011 11:29 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 12:42:28 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081711\08171102.D Vial: 1
Acq On : 17 Aug 2011 11:29 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 1 17:47 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

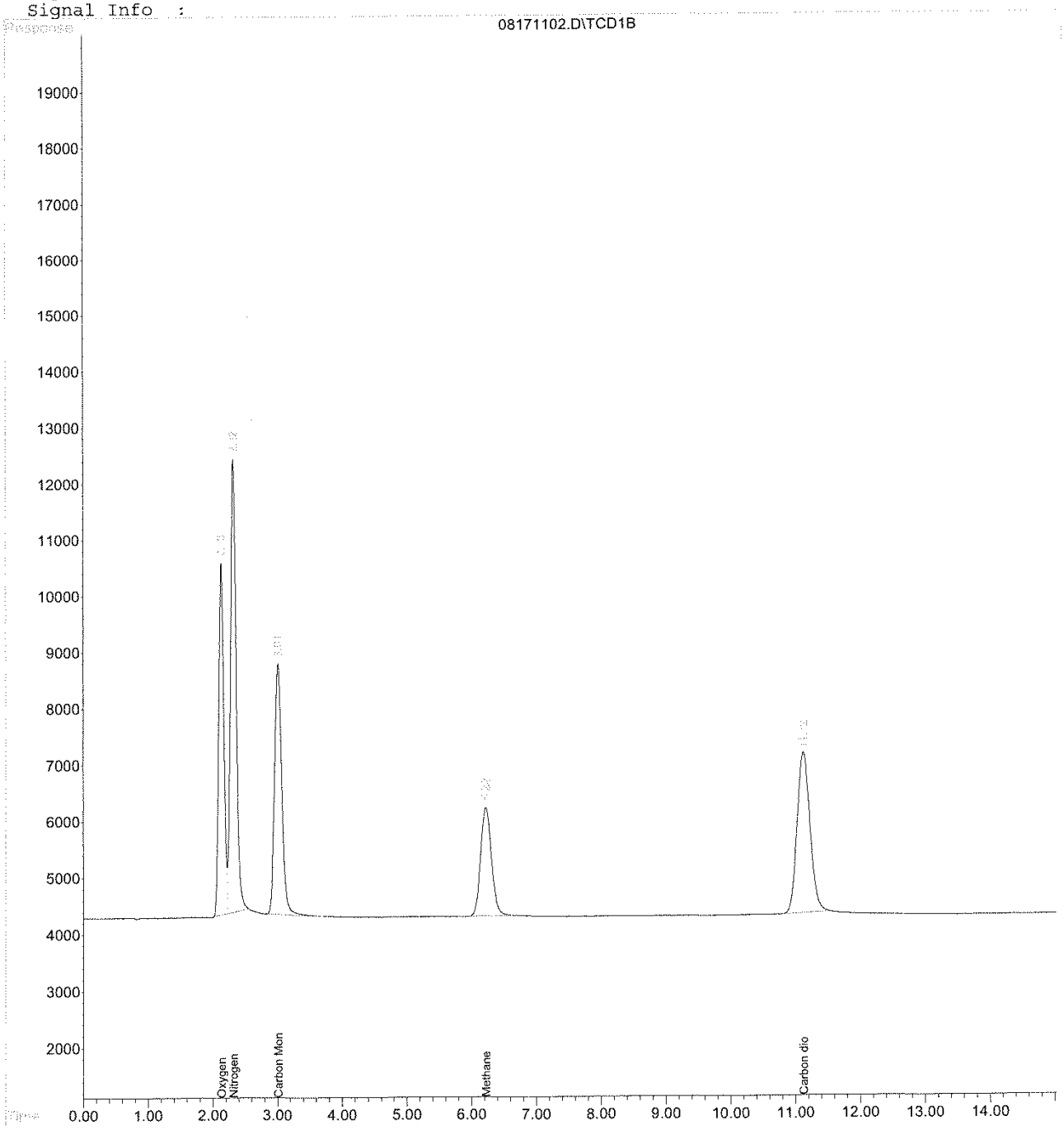
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	340170	2.374 %
2)	Nitrogen	2.32	489306	2.840 %
3)	Carbon Monoxide	3.01	346858	2.202 %
4)	Methane	6.22	223775	1.755 %
5)	Carbon dioxide	11.12	393149	2.179 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081711\08171102.D Vial: 1
Acq On : 17 Aug 2011 11:29 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 1 17:47 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\081711\08171116.D Vial: 1
Acq On : 17 Aug 2011 6:56 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	2.403	3.9	0	0.00
2	Nitrogen	2.500	2.843	-13.7	0	-0.01
3	Carbon Monoxide	2.500	2.229	10.8	0	-0.05
4	Methane	2.000	1.804	9.8	0	-0.08
5	Carbon dioxide	2.500	2.182	12.7	0	-0.11

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\081711\08171116.D Vial: 1
Acq On : 17 Aug 2011 6:56 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 12:42:41 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081711\08171116.D Vial: 1
Acq On : 17 Aug 2011 6:56 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 1 17:49 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.11	344336	2.403 %
2)	Nitrogen	2.29	489842	2.843 %
3)	Carbon Monoxide	2.97f	351113	2.229 %
4)	Methane	6.17f	230564	1.804 %
5)	Carbon dioxide	11.06f	393703	2.182 %

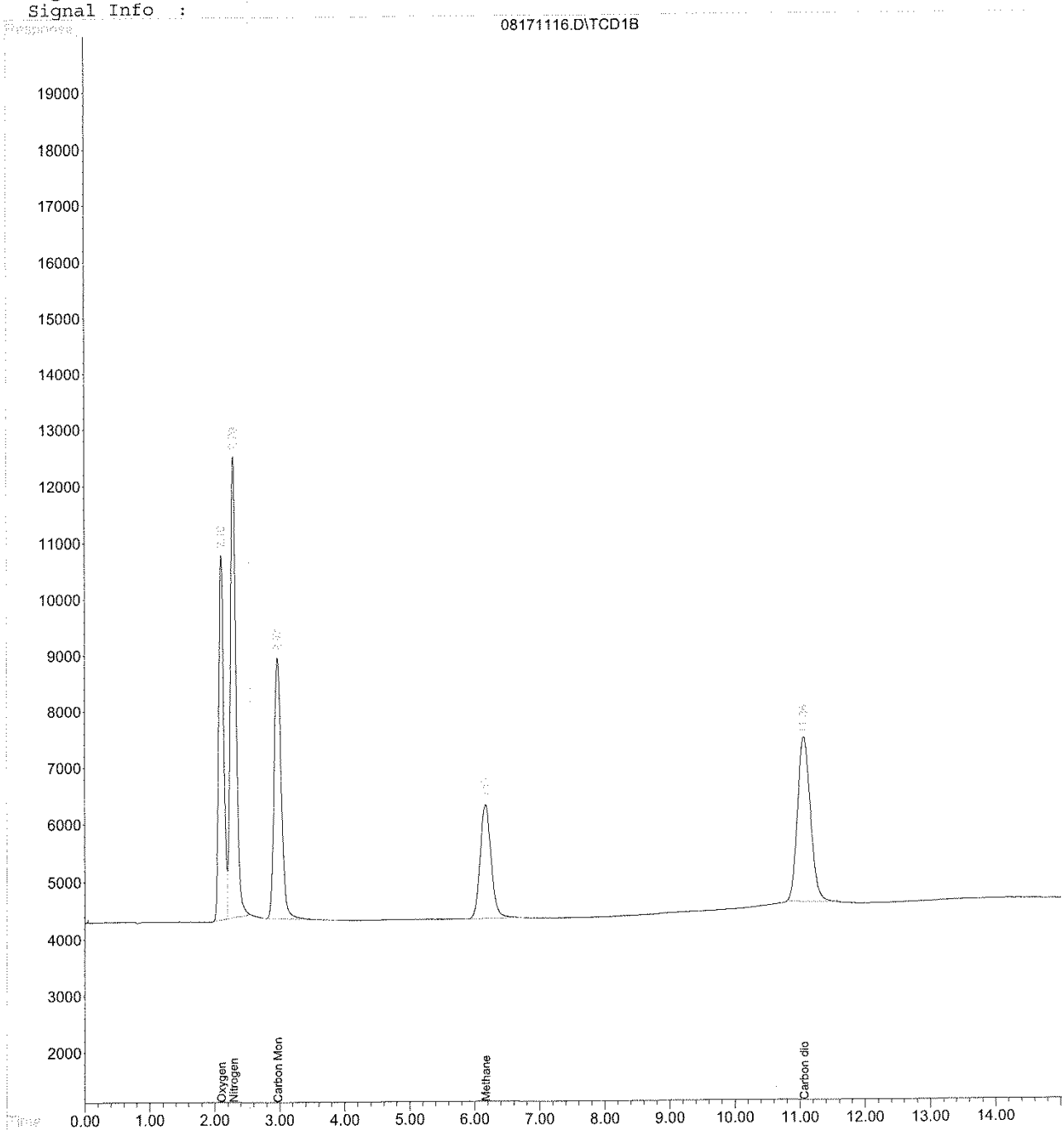
(f)=RT Delta > 1/2 Window (m)=manual int.
08171116.D 030511.M Thu Oct 20 12:42:38 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081711\08171116.D Vial: 1
Acq On : 17 Aug 2011 6:56 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 1 17:49 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110818A **Run No.:** 42679

Analytical Run Date: 8/18/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R42679	8/18/2011 1:22:00 PM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R42679	8/18/2011 2:25:00 PM	Robert Lynch		
lcs	ASTM-D2504	LCS	R42679	8/18/2011 2:51:00 PM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R42679	8/18/2011 3:16:00 PM	Robert Lynch		
1107914-012a	ASTM-D2504	SAMP	R42679	8/18/2011 3:38:00 PM	Robert Lynch		
1107914-013a	ASTM-D2504	SAMP	R42679	8/18/2011 4:08:00 PM	Robert Lynch		
1107914-014a	ASTM-D2504	SAMP	R42679	8/18/2011 4:28:00 PM	Robert Lynch		
1107914-015a	ASTM-D2504	SAMP	R42679	8/18/2011 4:46:00 PM	Robert Lynch		
1107914-016a	ASTM-D2504	SAMP	R42679	8/18/2011 5:11:00 PM	Robert Lynch		
1107914-017a	ASTM-D2504	SAMP	R42679	8/18/2011 5:34:00 PM	Robert Lynch		
1107914-005a	ASTM-D2504	SAMP	R42679	8/18/2011 5:53:00 PM	Robert Lynch		
1107914-006a	ASTM-D2504	SAMP	R42679	8/18/2011 6:13:00 PM	Robert Lynch		
1107914-006adup	ASTM-D2504	DUP	R42679	8/18/2011 6:33:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R42679	8/18/2011 6:55:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R42679	8/18/2011 7:19:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42679

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827881	mblk	ASTM-D2504	MBLK	\TA\081811\0818	8/18/2011 1:22:0	1	R42679		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
827882	ccv std 1-2 a	ASTM-D2504	CCV	\TA\081811\0818	8/18/2011 2:25:0	1	R42679		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.133	2.133		2.5	0	0	0.025	0.1	0	85%	85	115	0%	
Carbon Monoxide	A	%	2.179	2.179		2.5	0	0	0.025	0.1	0	87%	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	%	1.729	1.729		2	0	0	0.025	0.5	0	86%	85	115	0%	
Nitrogen	A	%	2.789	2.789		2.5	0	0	0.025	0.1	0	112%	85	115	0%	
Oxygen	A	%	2.334	2.334		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
827883	lcs	ASTM-D2504	LCS	\TA\081811\0818	8/18/2011 2:51:0	1	R42679		0	827882	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.095	2.095		2.5	0	2.133	0.025	0.1	0	84%	70	130	2%	
Carbon Monoxide	A	%	2.134	2.134		2.5	0	2.179	0.025	0.1	0	85%	70	130	2%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	1.726	1.726		2	0	1.729	0.025	0.5	0	86%	70	130	0%	
Nitrogen	A	%	2.688	2.688		2.5	0	2.789	0.025	0.1	0	108%	70	130	4%	
Oxygen	A	%	2.28	2.28		2.5	0	2.334	0.025	0.1	0	91%	70	130	2%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827892	1107914-006a (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\081811\0818	8/18/2011 6:13:0	1	R42679		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.166	0.166		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	%	78.002	78.002		0	0	0	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.518	20.518		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
827893	1107914-006adup	ASTM-D2504	DUP	ıTA\081811\0818	8/18/2011 6:33:0	1	R42679		0	827892	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.159	0.159		0	0	0.166	0.025	0.1	0	0%	0	0	4%	
Carbon Monoxide	A	%	0	0		0	0	0	0.025	0.1	0	0%	0	0	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Methane	A	%	0	0		0	0	0	0.025	0.5	0	0%	0	0	0%	
Nitrogen	A	%	77.9	77.9		0	0	78.002	0.025	0.1	0	0%	0	0	0%	
Oxygen	A	%	20.483	20.483		0	0	20.518	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
827894	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\081811\0818	8/18/2011 6:55:0	1	R42679		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.177	2.177		2.5	0	0	0.025	0.1	0	87%	85	115	0%	
Carbon Monoxide	A	%	2.226	2.226		2.5	0	0	0.025	0.1	0	89%	85	115	0%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	85	115	0%	
Methane	A	%	1.718	1.718		2	0	0	0.025	0.5	0	86%	85	115	0%	
Nitrogen	A	%	2.75	2.75		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	%	2.339	2.339		2.5	0	0	0.025	0.1	0	94%	85	115	0%	

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\081811\08181102.D Vial: 1
Acq On : 18 Aug 2011 2:25 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	2.334	6.6	0	0.03
2	Nitrogen	2.500	2.789	-11.6	0	0.02
3	Carbon Monoxide	2.500	2.179	12.8	0	-0.02
4	Methane	2.000	1.729	13.5	0	-0.04
5	Carbon dioxide	2.500	2.133	14.7	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\081811\08181102.D Vial: 1
Acq On : 18 Aug 2011 2:25 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 12:48:28 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081811\08181102.D Vial: 1
Acq On : 18 Aug 2011 2:25 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Aug 18 13:48 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

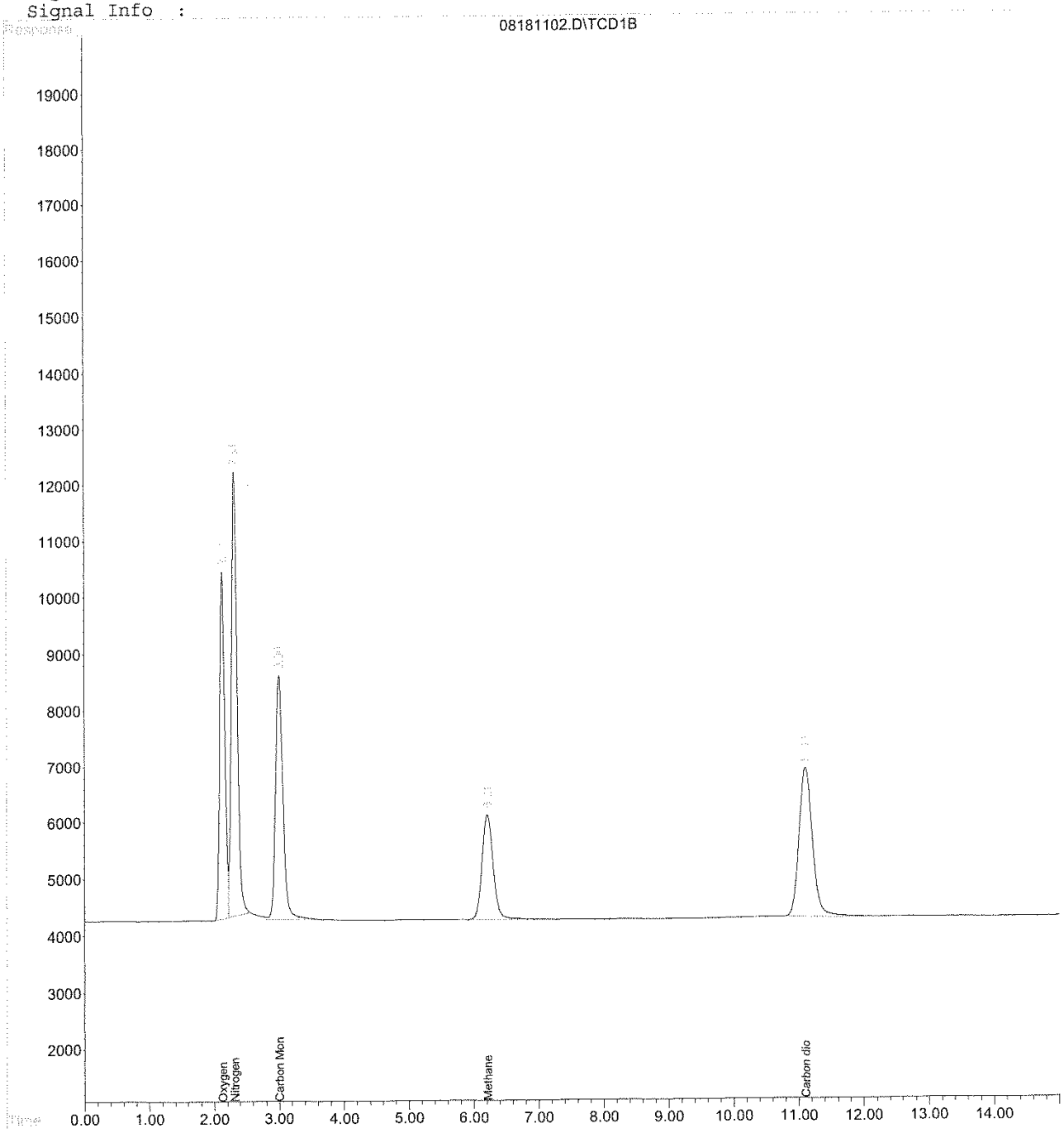
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	334359	2.334 %
2)	Nitrogen	2.32	480534	2.789 %
3)	Carbon Monoxide	3.00	343119	2.179 %
4)	Methane	6.21	220175	1.729 %
5)	Carbon dioxide	11.11	384640	2.133 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081811\08181102.D Vial: 1
Acq On : 18 Aug 2011 2:25 pm Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Aug 18 13:48 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\081811\08181114.D Vial: 1
Acq On : 18 Aug 2011 6:55 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	2.339	6.4	0	0.03
2	Nitrogen	2.500	2.750	-10.0	0	0.01
3	Carbon Monoxide	2.500	2.226	11.0	0	-0.02
4	Methane	2.000	1.718	14.1	0	-0.04
5	Carbon dioxide	2.500	2.177	12.9	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\081811\08181114.D Vial: 1
Acq On : 18 Aug 2011 6:55 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 12:48:42 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081811\08181114.D Vial: 1
Acq On : 18 Aug 2011 6:55 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 1 17:53 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

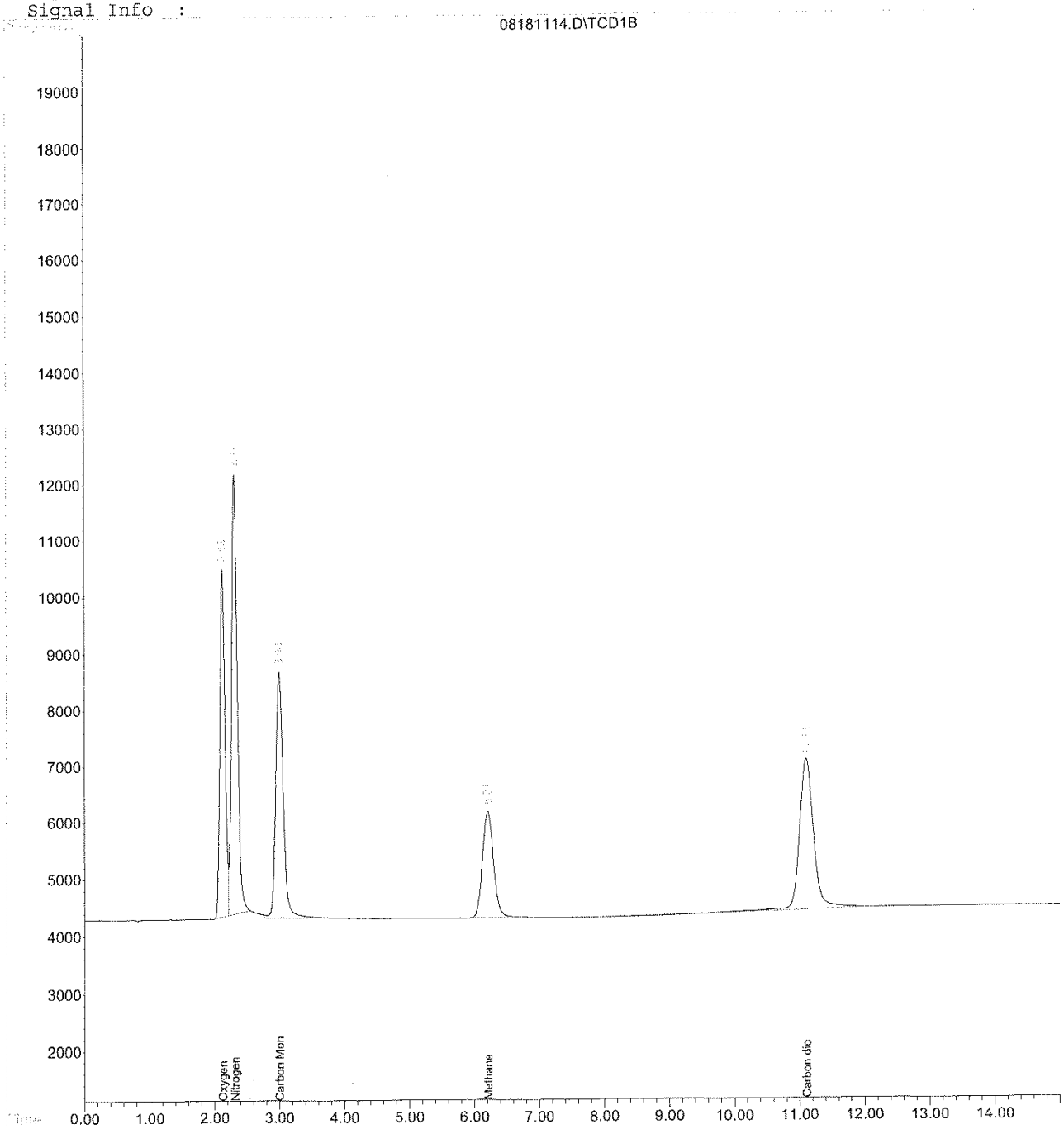
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	335113	2.339 %
2)	Nitrogen	2.31	473797	2.750 %
3)	Carbon Monoxide	3.00	350677	2.226 %
4)	Methane	6.21	218681	1.718 %
5)	Carbon dioxide	11.11	392798	2.177 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081811\08181114.D Vial: 1
Acq On : 18 Aug 2011 6:55 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 1 17:53 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



RTI Laboratories

Run ID: GC-TCD 1_110819A **Run No.:** 42680

Analytical Run Date: 8/19/2011 **InstrumentID:** GC-TCD 1

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

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

Column Length: 2m

SampID	TestCode	SampType	Batch ID	Analysis Date/Time	QA By	Q	Comments
mblk	ASTM-D2504	MBLK	R42680	8/19/2011 10:27:00 AM	Robert Lynch		
ccv std 1-2 a	ASTM-D2504	CCV	R42680	8/19/2011 10:47:00 AM	Robert Lynch		
lcs	ASTM-D2504	LCS	R42680	8/19/2011 11:35:00 AM	Robert Lynch		
crql std 2% a	ASTM-D2504	CRQL	R42680	8/19/2011 12:14:00 PM	Robert Lynch		
1107914-007a	ASTM-D2504	SAMP	R42680	8/19/2011 12:42:00 PM	Robert Lynch		
1107914-008a	ASTM-D2504	SAMP	R42680	8/19/2011 1:03:00 PM	Robert Lynch		
1107914-009a	ASTM-D2504	SAMP	R42680	8/19/2011 1:23:00 PM	Robert Lynch		
1107914-011a	ASTM-D2504	SAMP	R42680	8/19/2011 1:46:00 PM	Robert Lynch		
1107914-018a	ASTM-D2504	SAMP	R42680	8/19/2011 2:40:00 PM	Robert Lynch		
1107914-019a	ASTM-D2504	SAMP	R42680	8/19/2011 2:59:00 PM	Robert Lynch		
1107914-020a	ASTM-D2504	SAMP	R42680	8/19/2011 3:22:00 PM	Robert Lynch		
1107914-021a	ASTM-D2504	SAMP	R42680	8/19/2011 3:49:00 PM	Robert Lynch		
1107914-022a	ASTM-D2504	SAMP	R42680	8/19/2011 4:08:00 PM	Robert Lynch		
1107914-023a	ASTM-D2504	SAMP	R42680	8/19/2011 4:28:00 PM	Robert Lynch		
1107914-023adup	ASTM-D2504	DUP	R42680	8/19/2011 4:57:00 PM	Robert Lynch		
ccv std 1-2 b	ASTM-D2504	CCV	R42680	8/19/2011 5:41:00 PM	Robert Lynch		
crql std 2% b	ASTM-D2504	CRQL	R42680	8/19/2011 6:26:00 PM	Robert Lynch		

RTI Laboratories

ANALYTICAL RUN Summary

20-Oct-11

RunNo 42680

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827896	mblk	ASTM-D2504	MBLK	ATA\081911\0819	8/19/2011 10:27:	1	R42680		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
827897	ccv std 1-2 a	ASTM-D2504	CCV	ATA\081911\0819	8/19/2011 10:47:	1	R42680		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.142	2.142		2.5	0	0	0.025	0.1	0	86%	85	115	0%	
Carbon Monoxide	A	%	2.128	2.128		2.5	0	0	0.025	0.1	0	85%	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	%	1.733	1.733		2	0	0	0.025	0.5	0	87%	85	115	0%	
Nitrogen	A	%	2.762	2.762		2.5	0	0	0.025	0.1	0	110%	85	115	0%	
Oxygen	A	%	2.307	2.307		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
827898	lcs	ASTM-D2504	LCS	ATA\081911\0819	8/19/2011 11:35:	1	R42680		0	827897	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.175	2.175		2.5	0	2.142	0.025	0.1	0	87%	70	130	2%	
Carbon Monoxide	A	%	2.032	2.032		2.5	0	2.128	0.025	0.1	0	81%	70	130	5%	
Ethane	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Hydrogen	A	%		0		0	0	0	0.025	0.5	0	0%	70	130	0%	
Methane	A	%	1.64	1.64		2	0	1.733	0.025	0.5	0	82%	70	130	6%	
Nitrogen	A	%	2.662	2.662		2.5	0	2.762	0.025	0.1	0	106%	70	130	4%	
Oxygen	A	%	2.241	2.241		2.5	0	2.307	0.025	0.1	0	90%	70	130	3%	

Seq No	Sample ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
827909	1107914-023a (Container-01 of 01)	ASTM-D2504	SAMP	ıTA\081911\0819	8/19/2011 4:28:0	1	R42680		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oxygen	A	%	20.062	20.062		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
827910	1107914-023adup	ASTM-D2504	DUP	ıTA\081911\0819	8/19/2011 4:57:0	1	R42680		0	827909	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.15	0.15		0	0	0.152	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	%	79.042	79.042		0	0	78.599	0.025	0.1	0	0%	0	0	1%	
Oxygen	A	%	20.173	20.173		0	0	20.062	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
827911	ccv std 1-2 b	ASTM-D2504	CCV	ıTA\081911\0819	8/19/2011 5:41:0	1	R42680		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	2.146	2.146		2.5	0	0	0.025	0.1	0	86%	85	115	0%	
Carbon Monoxide	A	%	2.165	2.165		2.5	0	0	0.025	0.1	0	87%	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	%	1.74	1.74		2	0	0	0.025	0.5	0	87%	85	115	0%	
Nitrogen	A	%	2.68	2.68		2.5	0	0	0.025	0.1	0	107%	85	115	0%	
Oxygen	A	%	2.264	2.264		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
827912	crql std 2% b	ASTM-D2504	CRQL	ıTA\081911\0819	8/19/2011 6:26:0	1	R42680		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Carbon dioxide	A	%	0.254	0.254		0.3	0	0	0.025	0.1	0	85%	80	120	0%	
Carbon Monoxide	A	%	0.147	0.147		0.14	0	0	0.025	0.1	0	105%	80	120	0%	

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\081911\08191102.D          Vial: 1
Acq On    : 19 Aug 2011  10:47 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	2.307	7.7	0	0.03
2	Nitrogen	2.500	2.762	-10.5	0	0.02
3	Carbon Monoxide	2.500	2.128	14.9	0	-0.02
4	Methane	2.000	1.733	13.3	0	-0.03
5	Carbon dioxide	2.500	2.142	14.3	0	-0.05

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\2\DATA\081911\08191102.D          Vial: 1
Acq On    : 19 Aug 2011  10:47 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 12:49:30 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081911\08191102.D Vial: 1
Acq On : 19 Aug 2011 10:47 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 7 11:22 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

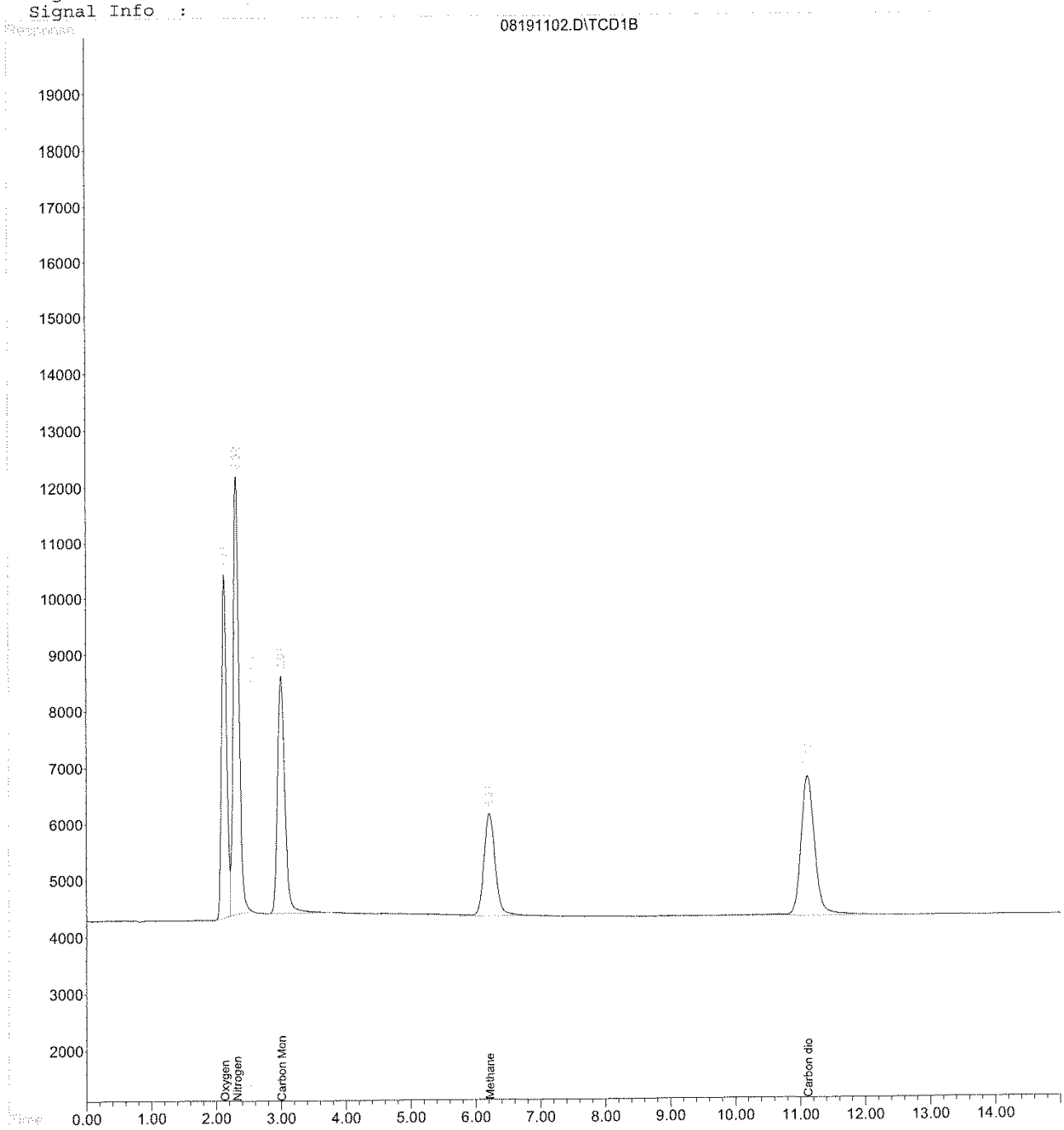
	Compound	R.T.	Response	Conc Units
	Target Compounds			
1)	Oxygen	2.13	330420	2.307 %
2)	Nitrogen	2.32	475764	2.762 %
3)	Carbon Monoxide	3.01	335111	2.128 %
4)	Methane	6.22	220833	1.733 %
5)	Carbon dioxide	11.12	386344	2.142 %

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081911\08191102.D Vial: 1
Acq On : 19 Aug 2011 10:47 am Operator:
Sample : ccv std 1-2 a Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 7 11:22 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\081911\08191116.D Vial: 1
Acq On : 19 Aug 2011 5:41 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	2.264	9.4	0	0.03
2	Nitrogen	2.500	2.680	-7.2	0	0.02
3	Carbon Monoxide	2.500	2.165	13.4	0	-0.02
4	Methane	2.000	1.740	13.0	0	-0.04
5	Carbon dioxide	2.500	2.146	14.2	0	-0.07

Evaluate Continuing Calibration Report - Not Founds

Data File : C:\HPCHEM\2\DATA\081911\08191116.D Vial: 1
Acq On : 19 Aug 2011 5:41 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 12:49:45 2011 TESTCAL

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081911\08191116.D Vial: 1
Acq On : 19 Aug 2011 5:41 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : events.e
Quant Time: Sep 7 11:05 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :

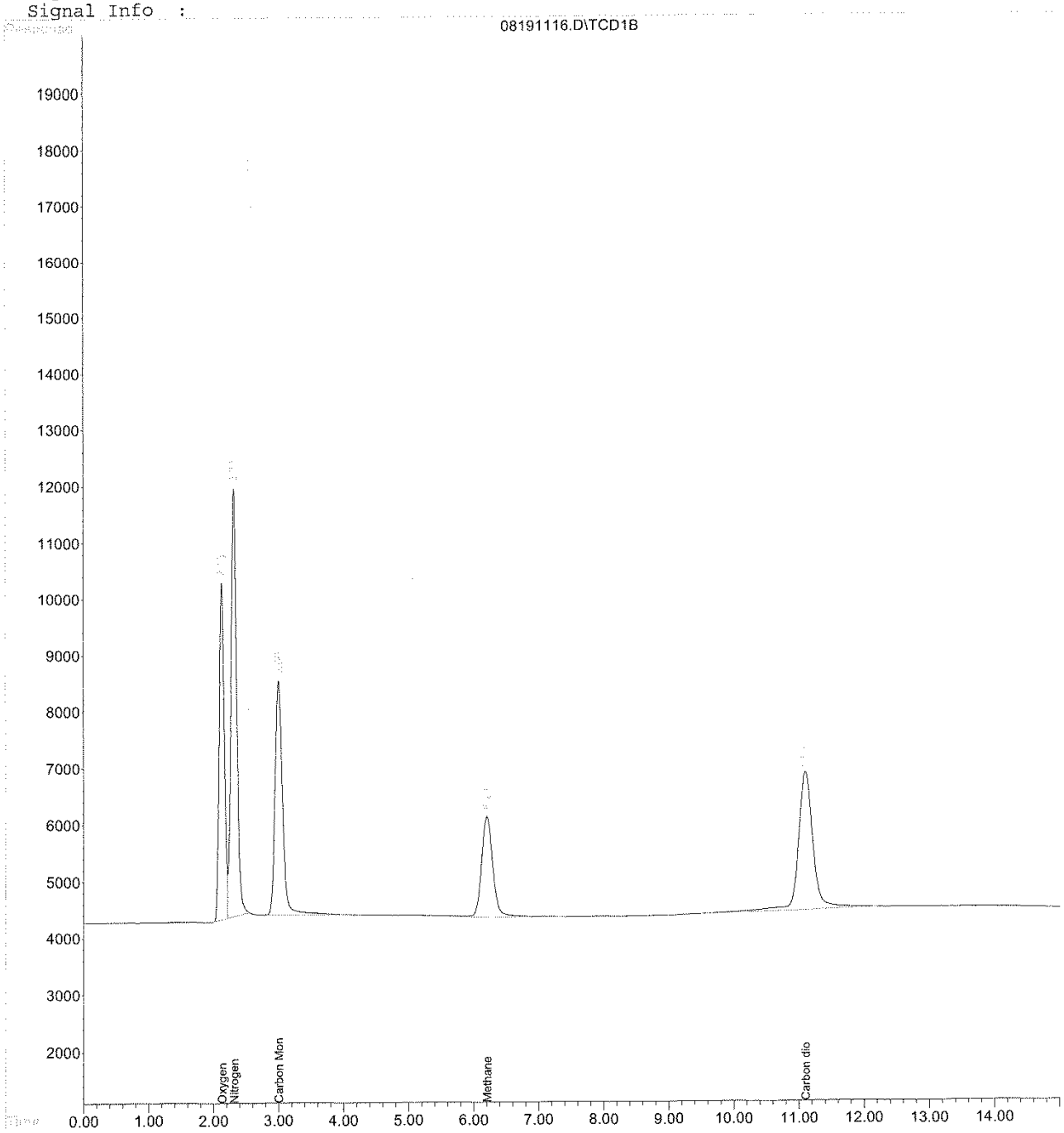
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1)	Oxygen	2.13	324247	2.264	%
2)	Nitrogen	2.32	461748	2.680	%
3)	Carbon Monoxide	3.00	341003	2.165	%
4)	Methane	6.21	221738	1.740	%
5)	Carbon dioxide	11.10	387135	2.146	%

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\2\DATA\081911\08191116.D Vial: 1
Acq On : 19 Aug 2011 5:41 pm Operator:
Sample : ccv std 1-2 b Inst : GC/TCD
Misc : CCV ASTM-D2504 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: Sep 7 11:05 2011 Quant Results File: 030511.RES

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

Volume Inj. :
Signal Phase :
Signal Info :



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