Data File: /chem3/fid3b.i/20100809.b/0809raw.b/0809b033.d

Date : 10-AUG-2010 03:15

Client ID:

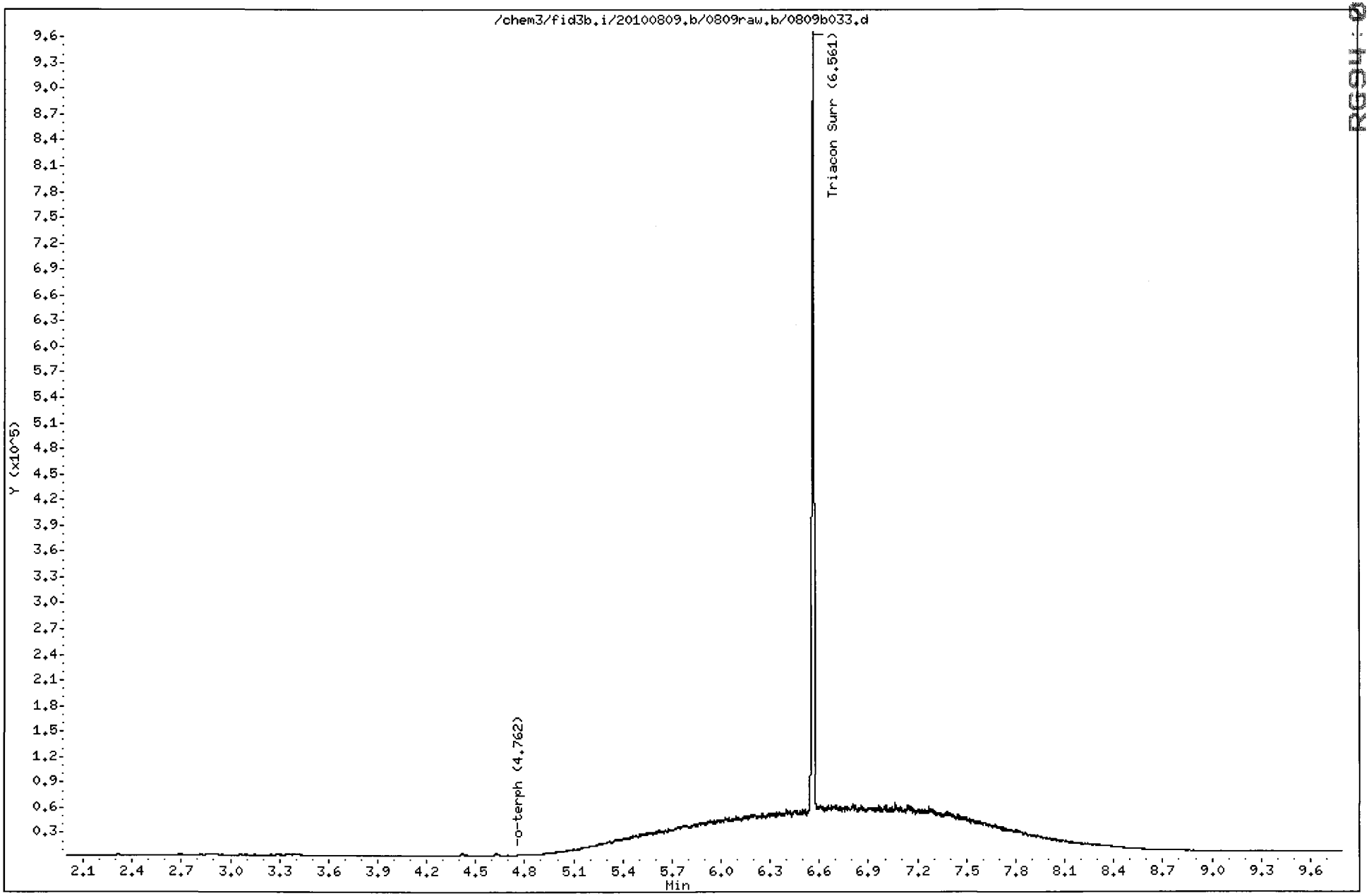
Instrument: fid3b.i

Sample Info: MOIL#4

Operator: MS

Column phase: RTX-1

Column diameter: 2.00



Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid3b.i/20100809.b/0809b033.d
Method: /chem3/fid3b.i/20100809.b/ftphfid3b.m
Instrument: fid3b.i
Operator: MS
Report Date: 08/11/2010
Macro: FID:3B073010

ARI ID: MOIL#4
Client ID:
Injection: 10-AUG-2010 03:15
Dilution Factor: 1

FID:3B RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	----				GAS (Tol-C12)	49271	2
C8	----				DIESEL (C12-C24)	702303	33
C10	2.857	0.003	1142	982	M.OIL (C24-C38)	5748429	476
C12	3.459	-0.005	751	396	AK-102 (C10-C25)	842457	35
C14	3.922	-0.002	495	165	AK-103 (C25-C36)	5077103	568
C16	4.319	-0.001	334	113	OR.DIES (C10-C28)	2233591	106
C18	4.679	0.006	708	461	OR.MOIL (C28-C40)	4635721	411
C20	4.999	0.005	4201	1153			
C22	5.295	0.001	15164	4964	STODDARD (C8-C12)	49271	2
C24	5.605	0.003	29140	19256			
C25	5.765	0.003	34998	14092			
C26	5.925	0.001	39629	23262			
C28	6.237	-0.005	46806	27603			
C32	6.853	-0.002	59471	23899			
C34	7.141	0.000	59189	46676	CREOSOT (C8-C22)	319126	50
Filter Peak	----						
C36	7.413	0.001	48525	30260	BUNKERC (C10-C38)	6484198	750
o-terph	4.762	0.001	1468	1810	JET-A (C10-C18)	72368	5
Triacon Surr	6.561	0.002	905170	778462	IT.MOIL (C24-C40)	6912005	322

Range Times: NW Diesel(3.514 - 5.652) NW Gas(0.975 - 3.514) NW M.Oil(5.652 - 7.720)
AK102(2.804 - 5.712) AK103(5.712 - 7.462) Jet A(2.804 - 4.723)

Surrogate	Area	Amount	%Rec
o-Terphenyl	1810	0.1	0.2
Triacontane	778462	46.5	103.4

MANUAL ADJUSTMENTS
1. Peak not found
2. Poor Chromatography
3. Baseline Correction
4. Totals Calculation
5. Other

Analyst [signature] Date 8/11/10

Analyte	RF	Curve Date
o-Terph Surr	19934.0	30-JUL-2010
Triacon Surr	16726.1	30-JUL-2010
Gas	27357.0	16-MAR-2010
Diesel	21397.5	30-JUL-2010
Motor Oil	12081.4	30-JUL-2010
AK102	24104.0	30-JUL-2010
AK103	8932.5	01-SEPT-2009
JetA	15848.0	27-JAN-2009
OR Diesel	21090.0	
OR M.Oil	11274.0	
IT M.Oil	21488.2	
Bunker C	8643.2	15-SEP-2009
Creosote	6396.0	17-JAN-2009

Data File: /chem3/fid3b.i/20100809.b/0809b033.d

Date : 10-AUG-2010 03:15

Client ID:

Sample Info: MOIL#4

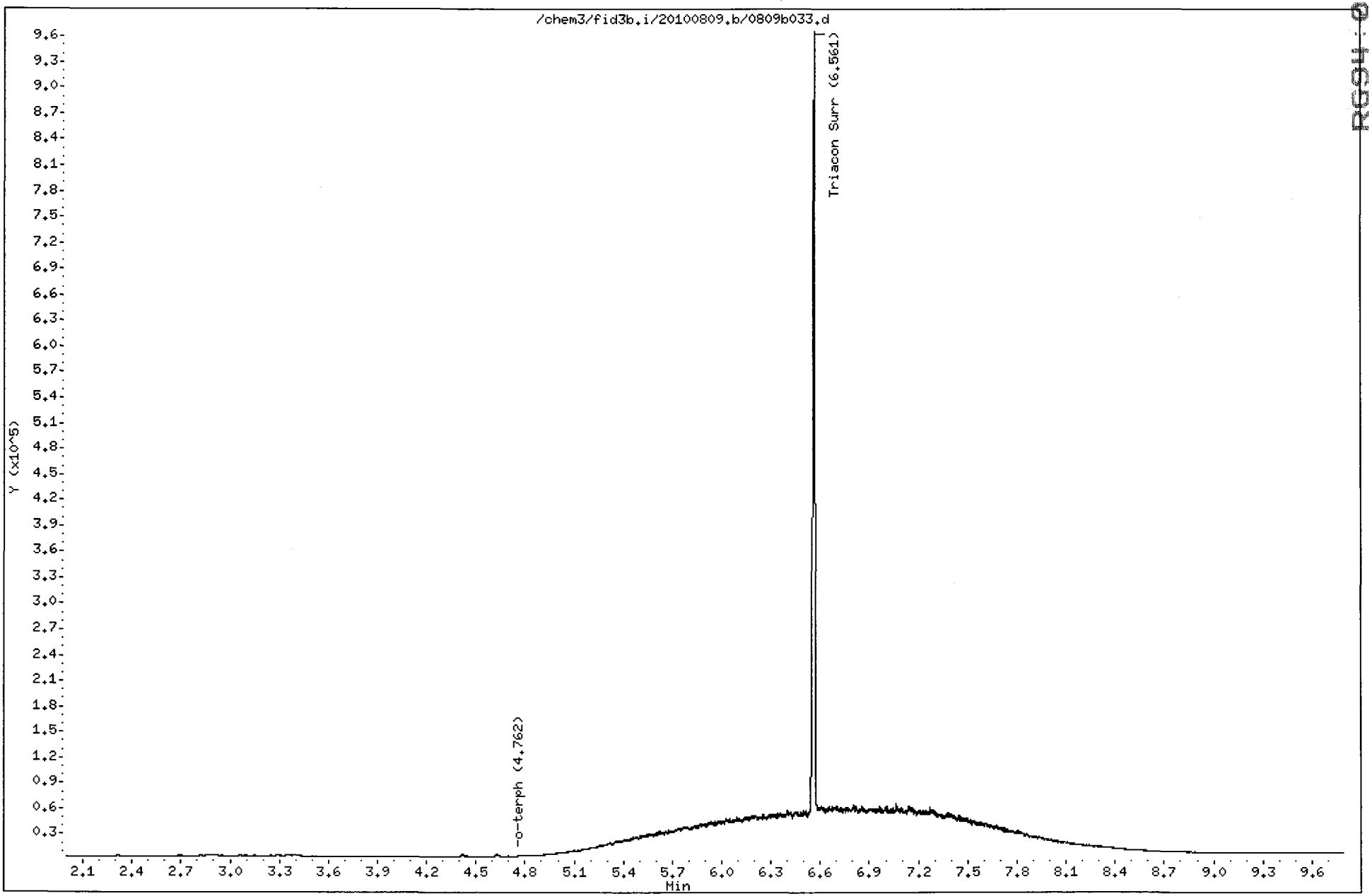
Column phase: RTX-1

Instrument: fid3b.i

Operator: MS

Column diameter: 2.00

RSH-01381



TPHG/BETX Raw Data
Preparation Log

ARI Job ID: RG94

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Volatile Organics Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No. | Client ID/Project | Extraction Date | MeOH Lot No. | Analyst

1st Extraction: 8/10/10 | MH

2nd Extraction:

	Lab ID	Vial No.	Preservative		Method 5035 Sample Weight					Comments
			$NaHSO_3$	CH_3OH	Vial Weight	Tare (from vial)	Sample Weight	Extract Volume	MeOH Spilt Volume	
	MB:									
	LCS:									
	LCSD:									
1	RG94 A	1		X	38.96	27.848	11.112	5	900	
2	B	1		↓	37.49	27.874	9.616	↓	↓	
3	C	2			38.82	~~38.8~~ MM 27.716	11.104			
4	D	1			39.17	27.690	11.48			
5	E	1			39.24	27.910	11.33			
6	F	1			39.36	27.701	11.659			
7	G	1			36.36	27.850	8.51			
8	H	2			36.83	27.702	9.128			MS/MSD
9	I	2			37.70	27.846	9.854			
10	J	1		↓	37.62	27.852	9.768	↓	↓	
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
	Balance ID:									

	Solution ID	Concentration	Amount Spiked	Analyst	Witness
Surrogate:					
Spike:					

RG91.01286

TPHG/BETX Raw Data
Initial Calibration Notes and Raw Data

ARI Job ID: RG94

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: Gas Curve Client ID: _____

ARI SOP: (**404S**(Gas)) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): Gas

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 (PID-3) FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 7/28/10 Analysis Start Date: 7/28/10

pH ≤ 2.0	YES / NO (NA)	Method Blank In Control?	(YES) / NO
BFB Tune Meets Criteria?	YES / NO (NA)	LCS / LCSD Recovery In Control?	(YES) / NO
Internal Standard Meets Criteria?	YES / NO (NA)	Surrogate Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / NO (NA)	Q flag applied?	YES / NO (NA)
Manual Integrations for ICal?	(YES) / NO	Manual Integrations for Samples?	(Yes) /NO
Special Analysis Criteria Met?	YES / NO (NA)		

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Gas ICV Targed 2.5

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 7/29/10

Reviewer: _____ **Date:** 7/29/10

7/29/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a012.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a012.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS .1
Client ID:
Injection Date: 28-JUL-2010 11:42
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.425	0.017	7873	93810	109.4	TFT(Surr)
14.901	0.013	4596	37219	106.7	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	100925	0.122 M
8015B 2MP-TMB	(4.92 to 15.58)	1664107	195939	0.118 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	134256	0.119 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	110221	0.125 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.424	0.017	23728	107.9	TFT(Surr)
14.900	0.013	47912	105.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
10.290	0.018	4229	3.20	Toluene
12.825	0.020	1325	1.07	Ethylbenzene
12.964	0.022	4623	3.43	M/P-Xylene
13.742	0.018	1960	1.53	O-Xylene
5.294	0.007	3815	10.72	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100728-2.b/0728a010.d

Date : 28-JUL-2010 10:34

Client ID:

Sample Info: GAS ICV

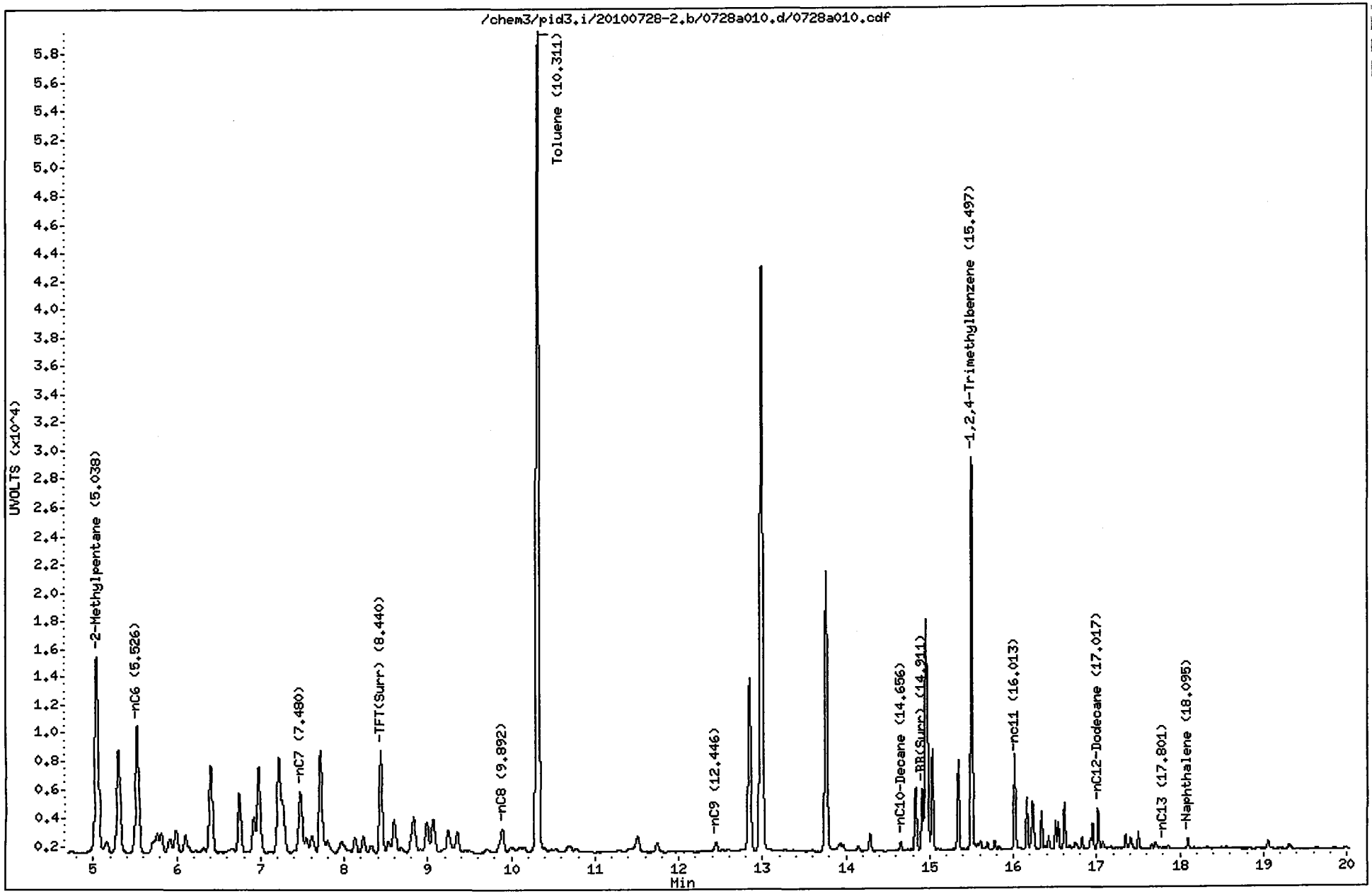
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

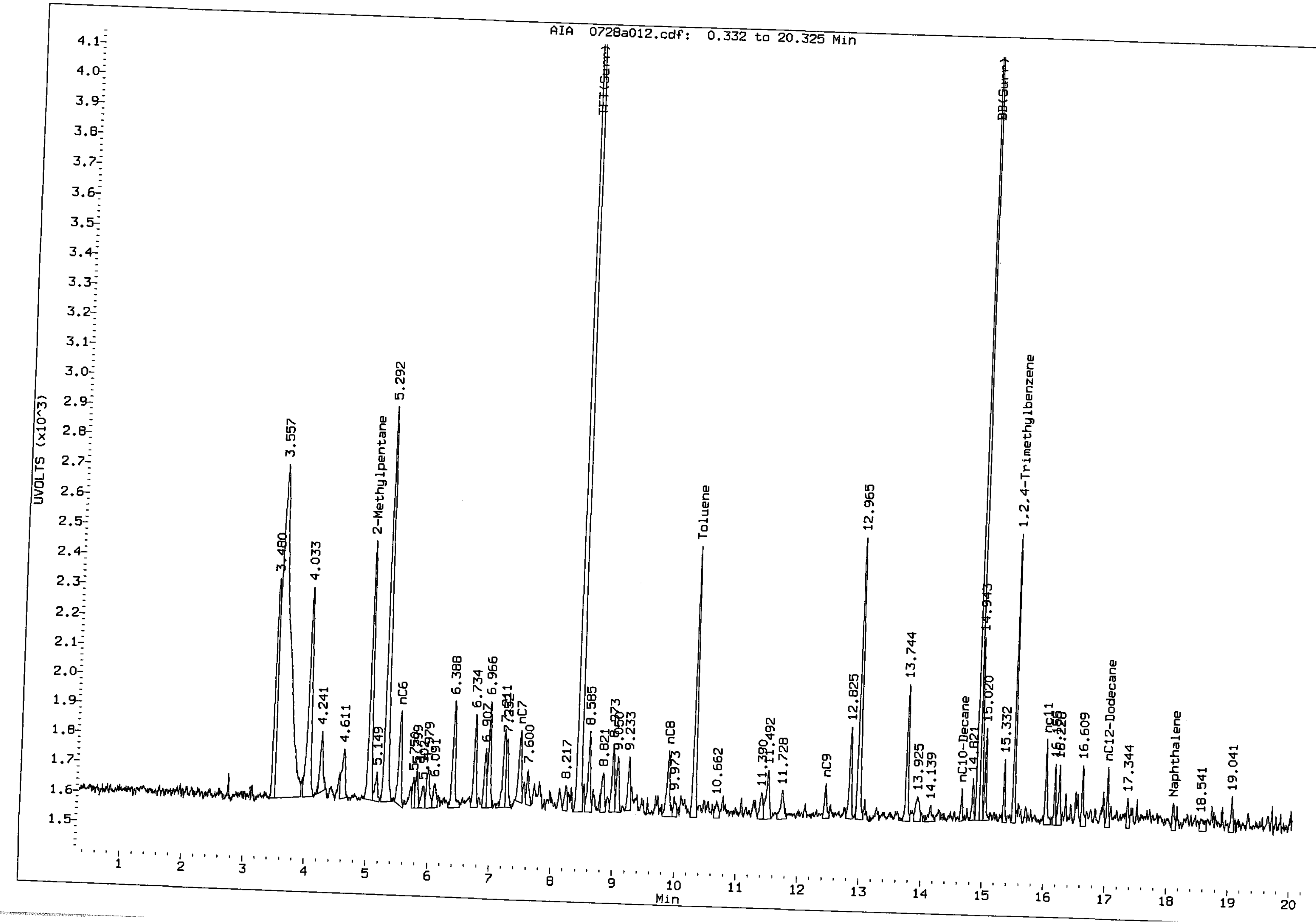
Column diameter: 0.18

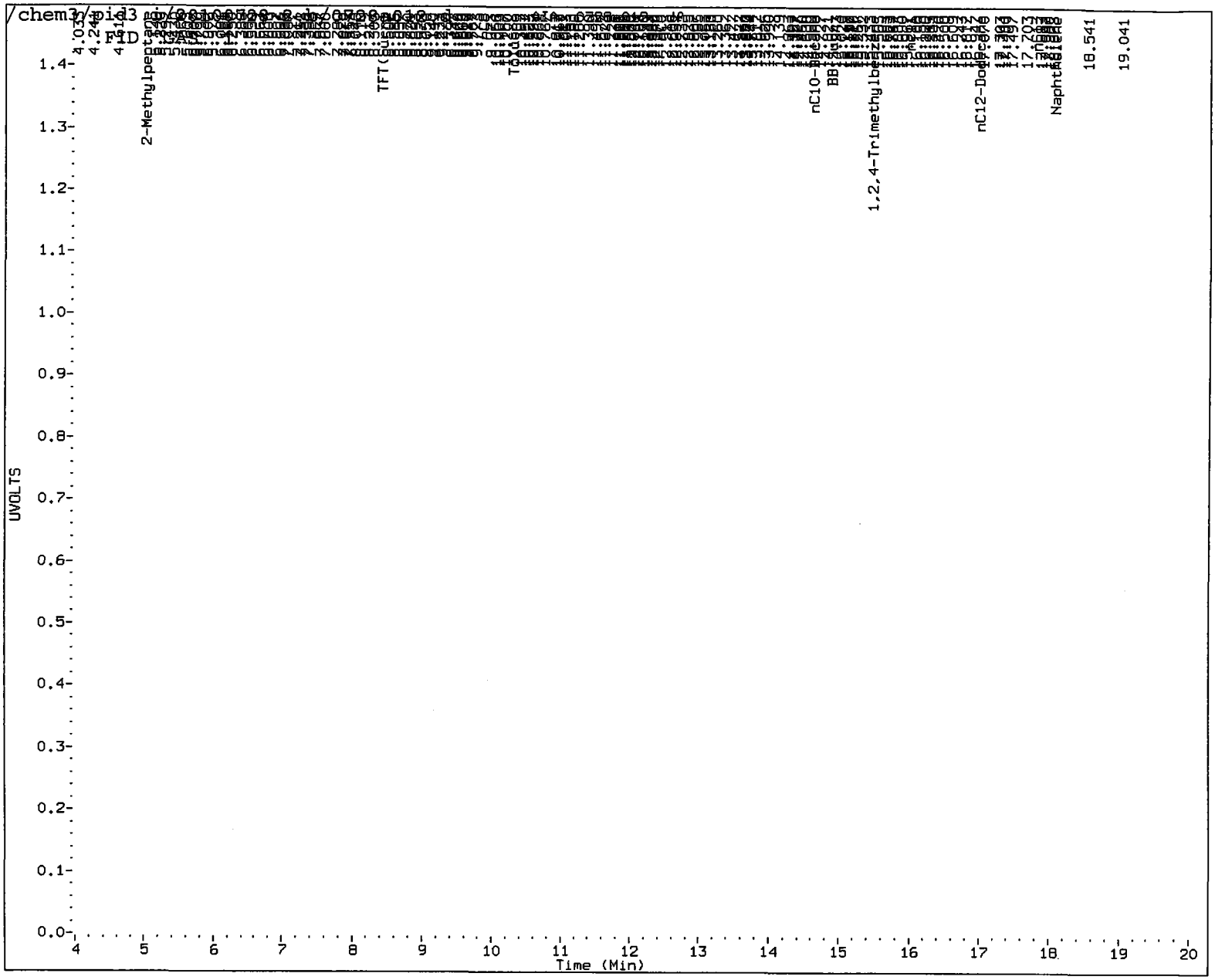
RG94:01390



7/29/10

Data File: /chem3/pid3.i/20100728-2.b/0728a012.d/0728a012.cdf
Injection Date: 28-JUL-2010 11:42
Instrument: pid3.i
Client Sample ID:





MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/29/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a004.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a004.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS .25
Client ID:
Injection Date: 28-JUL-2010 08:07
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.435	0.027	7186	84666	99.8	TFT(Surr)
14.907	0.019	4308	34905	100.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	193174	0.233 M
8015B 2MP-TMB	(4.92 to 15.58)	1664107	400040	0.240 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	266719	0.236 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	207460	0.235 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.434	0.027	21029	95.7	TFT(Surr)
14.906	0.020	44130	96.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.711	0.024	617	0.47	Benzene
10.300	0.029	9631	7.30	Toluene
12.835	0.030	2739	2.20	Ethylbenzene
12.974	0.032	10740	7.98	M/P-Xylene
13.751	0.027	4547	3.54	O-Xylene
5.301	0.013	9271	26.06	MTBE

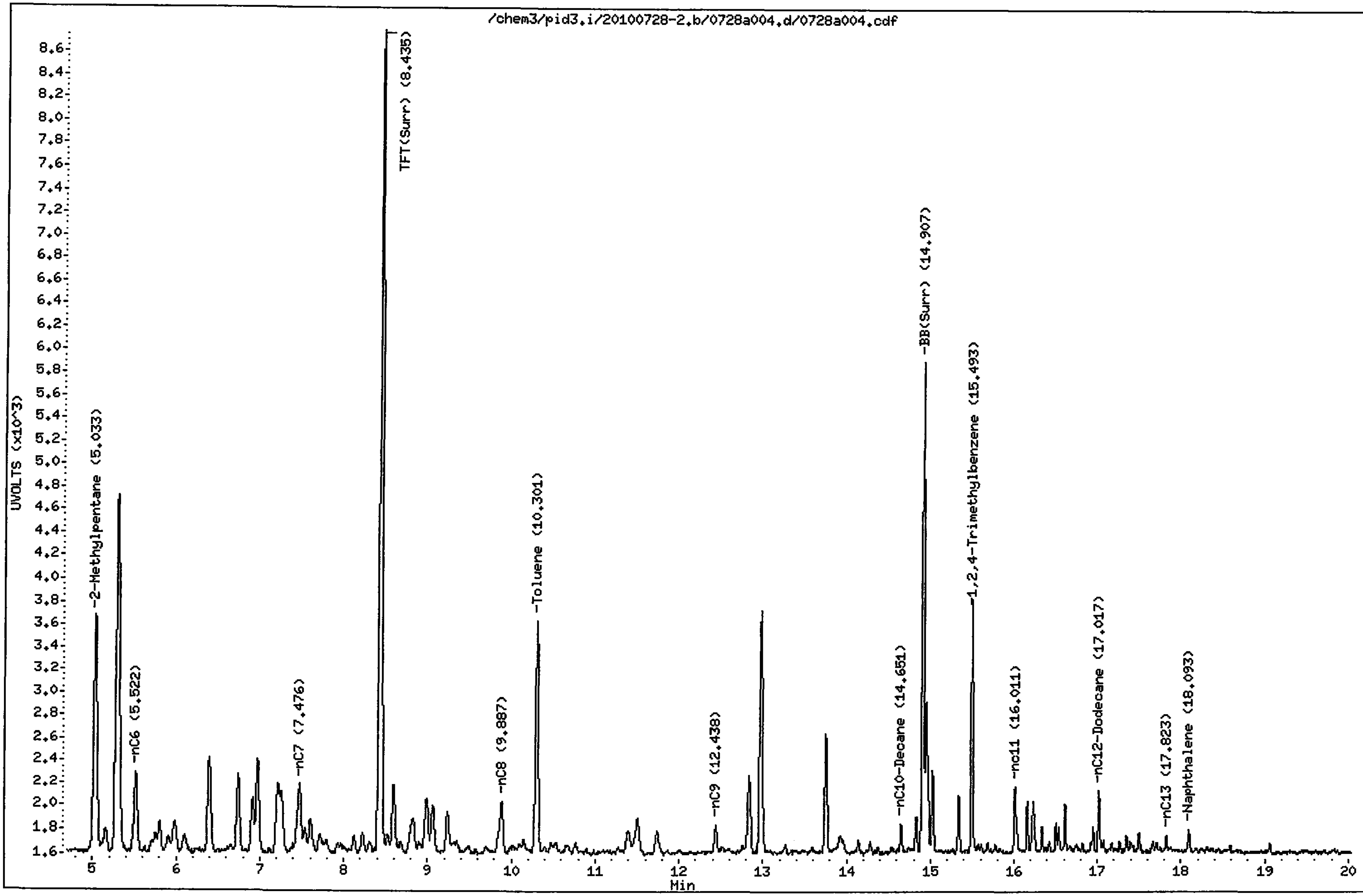
A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

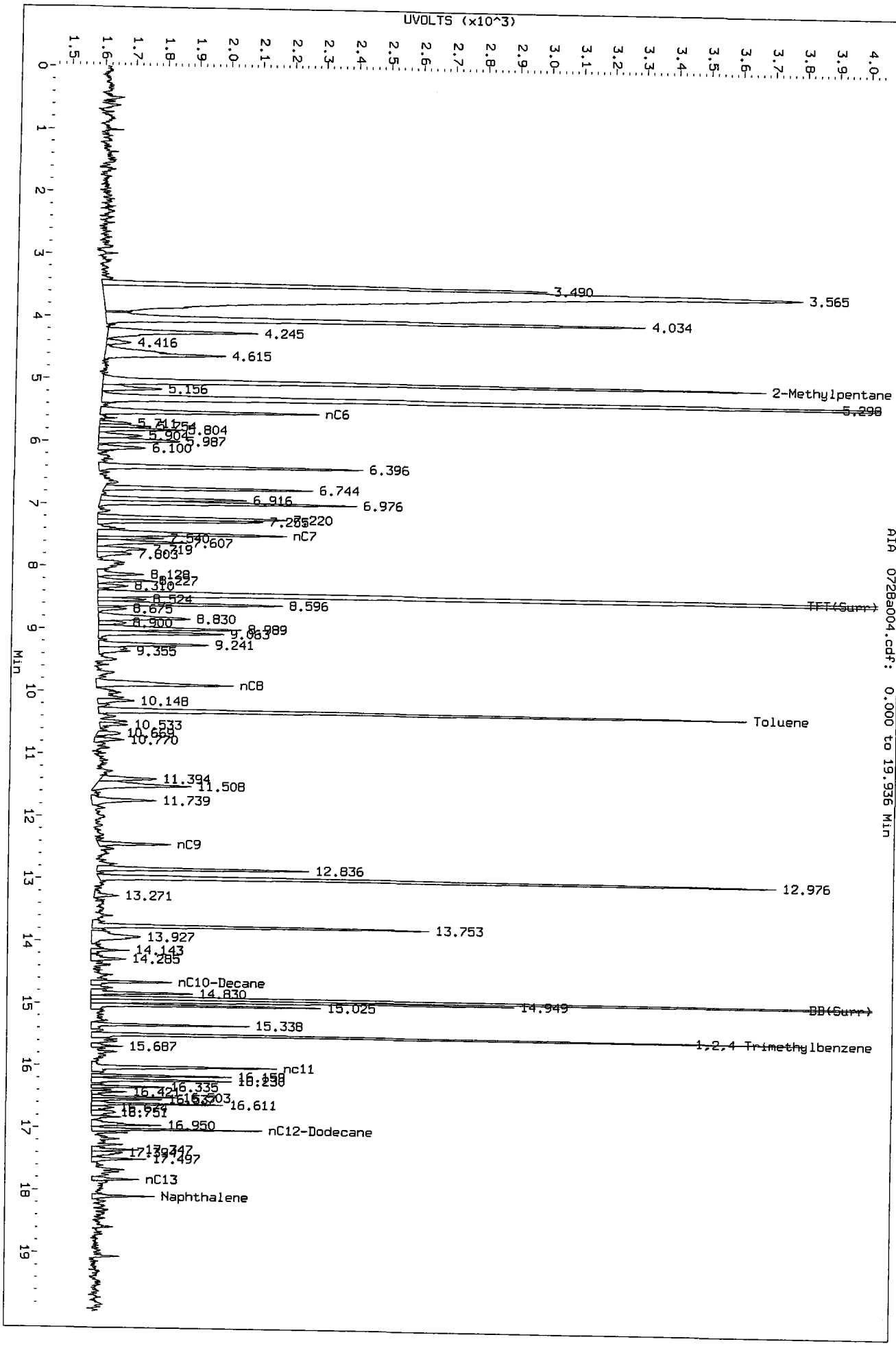
Data File: /chem3/pid3.i/20100728-2.b/0728a004.d
Date : 28-JUL-2010 08:07
Client ID:
Sample Info: GAS .25

Column phase: RTX 502-2 FID

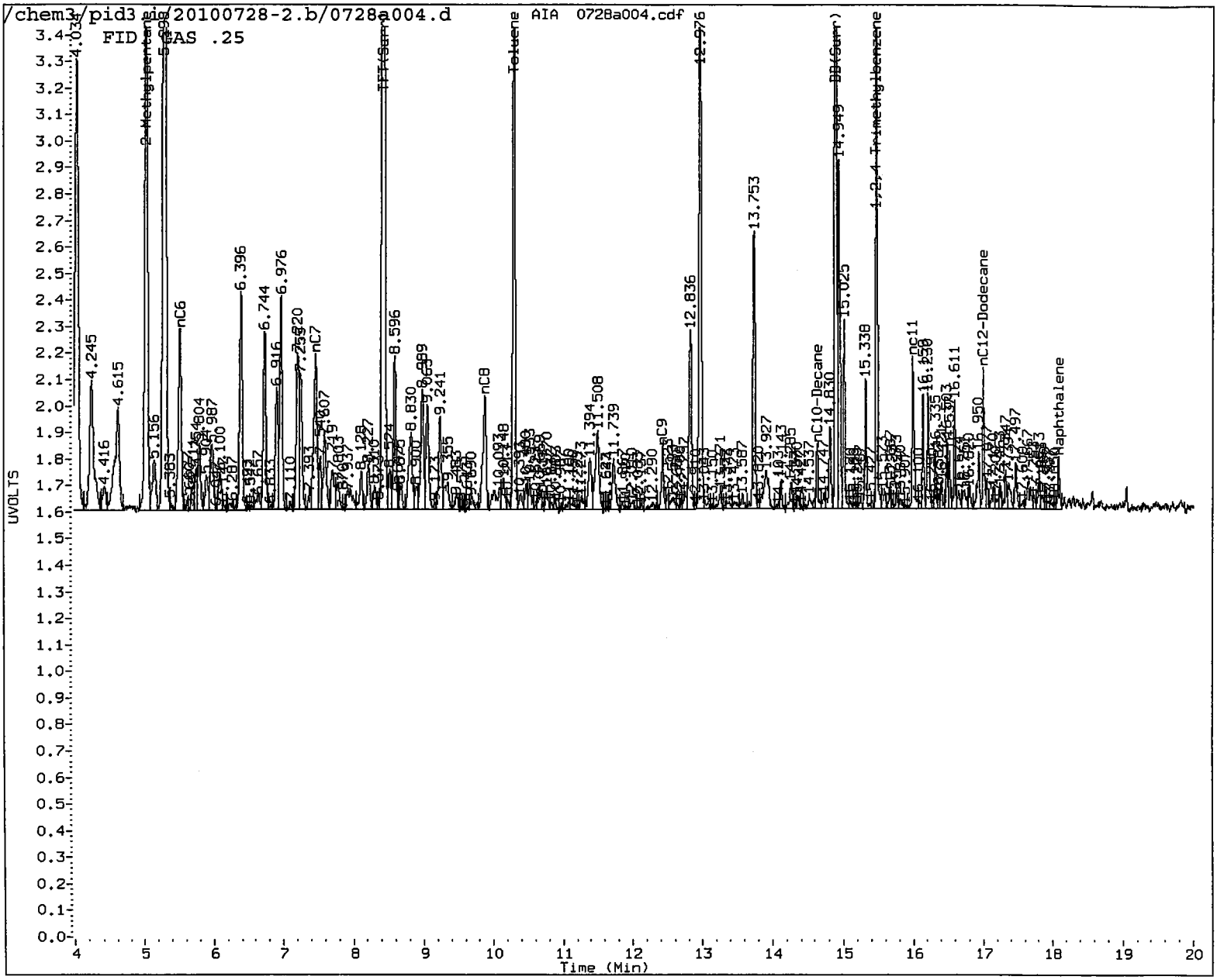
Instrument: pid3.i

Operator: MH
Column diameter: 0.18




UVOLTS (x10^3)
Min
AIA 072Ba004.cdf: 0.000 to 19.936 Min
Data File: /chem3/pid3.i/20100728-2.b/072Ba004.d/072Ba004.cdf
Injection Date: 28-JUL-2010 08:07
Instrument: pid3.i
Client Sample ID:
3.490
3.565
4.034
4.245
4.416
4.615
5.156
2-Methylpentane
5.298
nC6
6.100
6.396
6.744
6.916
6.976
nC7
7.603
8.310
8.524
8.596
8.675
8.830
8.900
9.241
9.355
nC8
10.148
Toluene
10.533
10.659
10.770
11.394
11.508
11.739
nC9
12.836
12.976
13.271
13.753
13.927
14.143
14.285
nC10-Decane
14.830
15.025
14.949
15.338
15.687
nc11
16.335
16.611
16.950
nC12-Dodecane
17.497
nC13
Naphthalene

RG94 : 01395



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/29/10

M. 2/29/11

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a005.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a005.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS 1
Client ID:
Injection Date: 28-JUL-2010 08:31
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.437	0.029	7240	85071	100.6	TFT(Surr)
14.910	0.022	4266	35061	99.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	761867	0.920 M
8015B 2MP-TMB	(4.92 to 15.58)	1664107	1564234	0.940 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1050254	0.928 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	811111	0.920 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.436	0.029	21131	96.1	TFT(Surr)
14.908	0.022	43950	96.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.713	0.026	2868	2.17	Benzene
10.303	0.032	37994	28.79	Toluene
12.838	0.033	10898	8.77	Ethylbenzene
12.978	0.036	42543	31.59	M/P-Xylene
13.754	0.029	17526	13.64	O-Xylene
5.302	0.015	35267	99.12	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

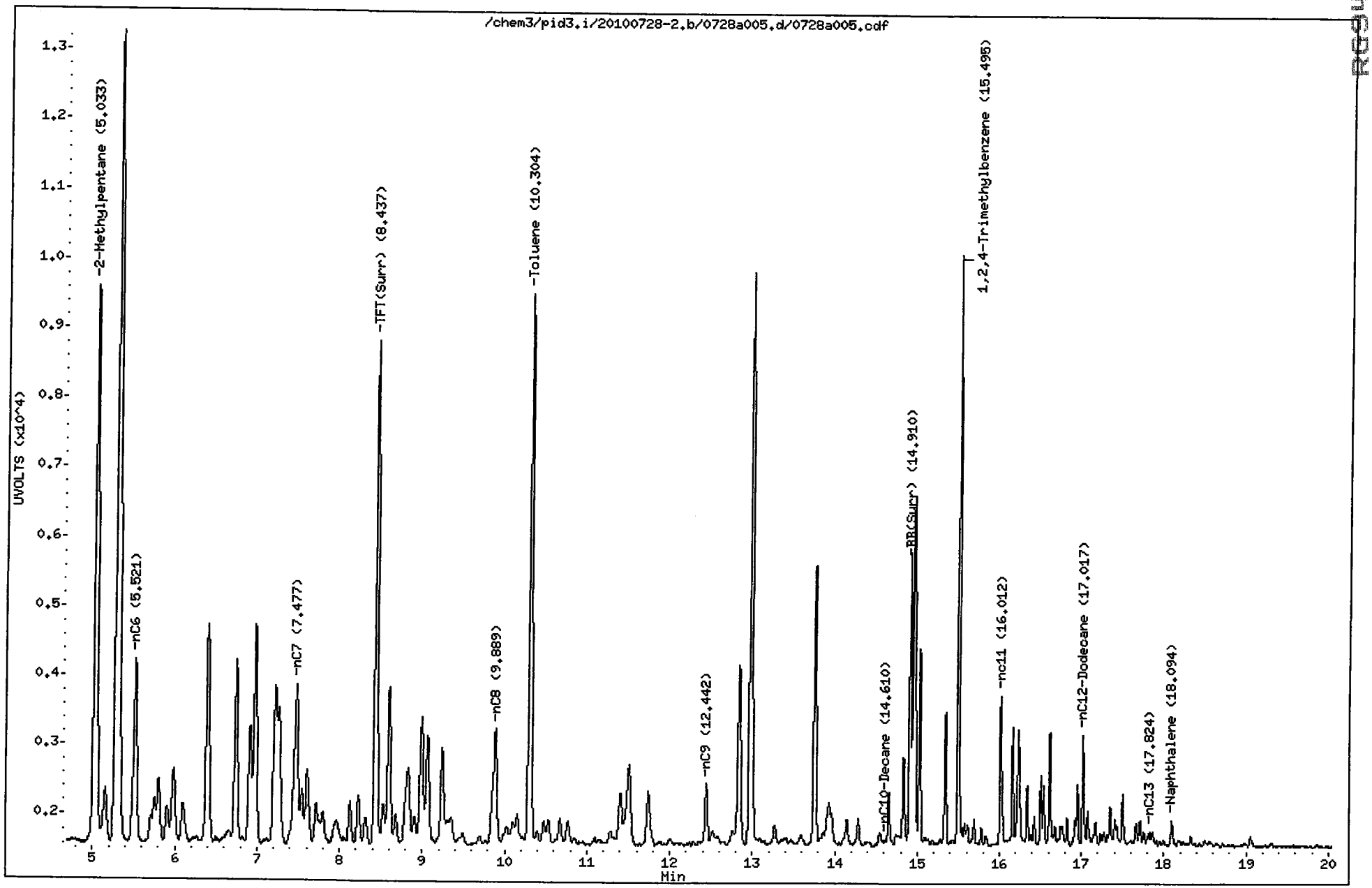
Data File: /chem3/pid3.i/20100728-2.b/0728a005.d
Date : 28-JUL-2010 08:31
Client ID:
Sample Info: GAS 1

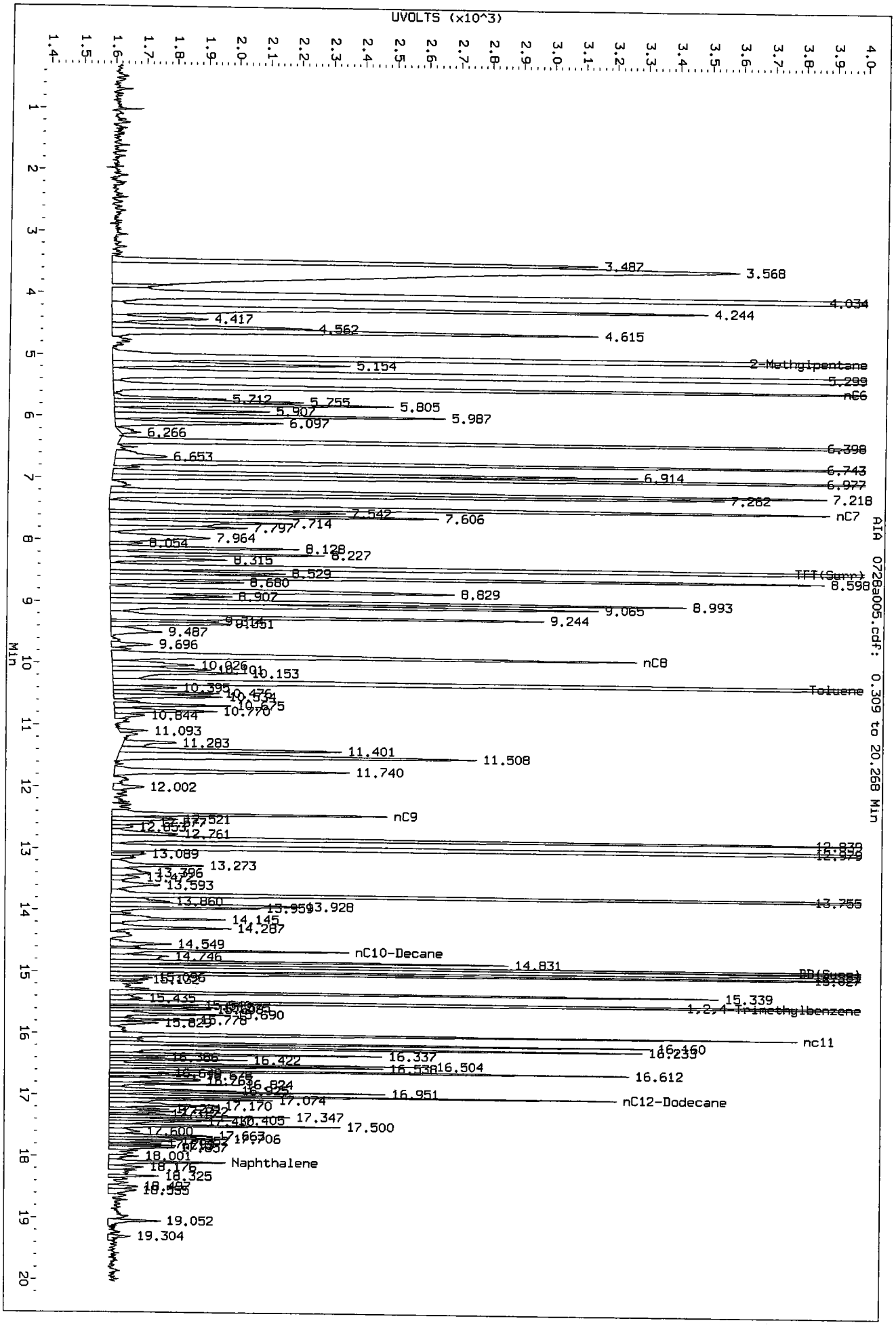
Column phase: RTX 502-2 FID

Instrument: pid3.i

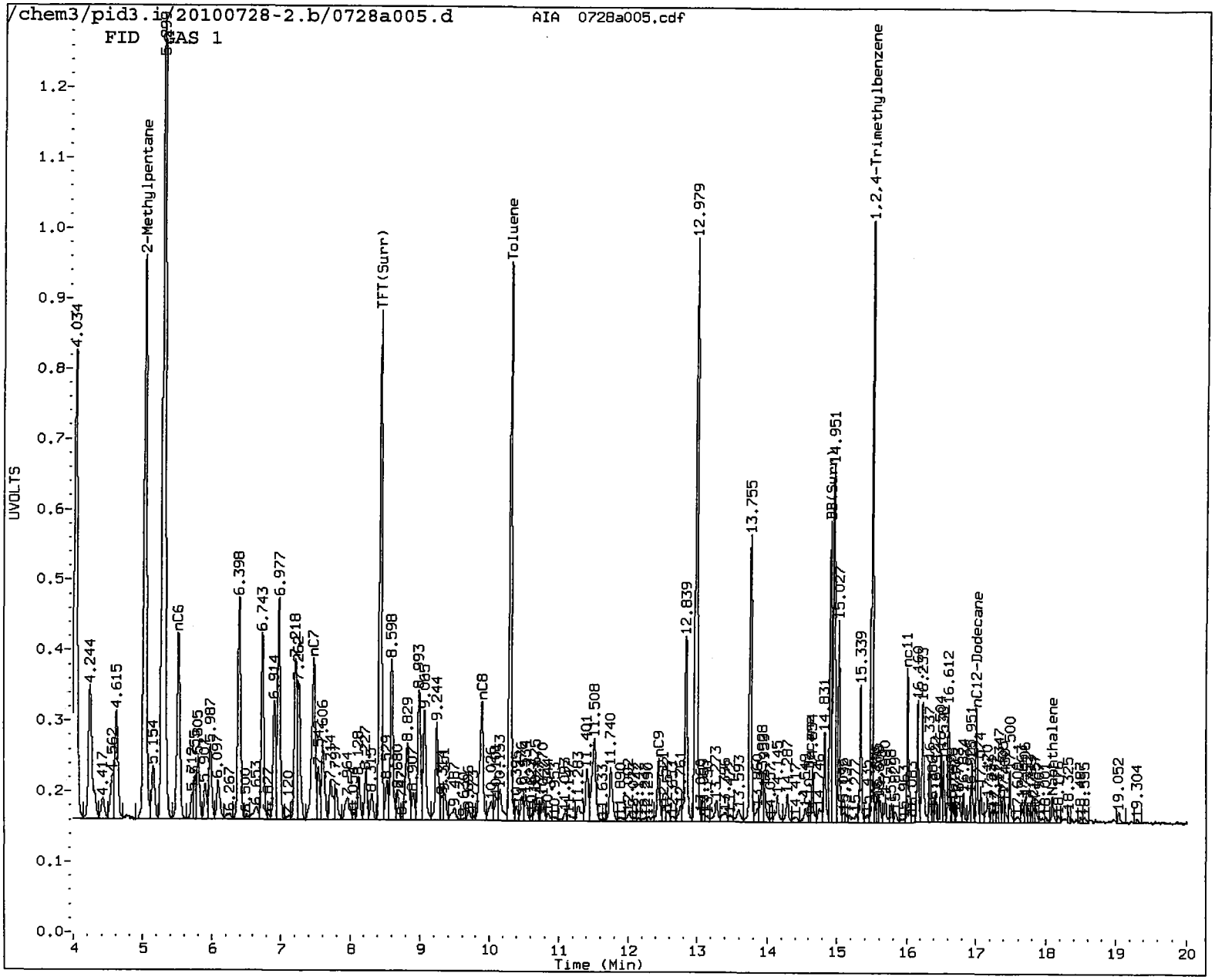
Operator: MH
Column diameter: 0.18

Report: 61398




UVOLTS (x10^3)
Min
AIA 0728a005.cdf: 0.309 to 20.268 Min
Data File: /chem3/pid3.i/20100728-2.b/0728a005.d/0728a005.cdf
Injection Date: 28-JUL-2010 08:31
Instrument: pid3.i
Client Sample ID:
3.487
3.568
4.034
4.244
4.417
4.562
4.615
5.154
2-Methylpentane
5.299
nC6
5.212
5.755
5.805
5.907
5.987
6.097
6.266
6.398
6.653
6.743
6.914
6.977
7.262
7.218
nC7
2.542
7.606
7.797
7.714
7.964
8.054
8.128
8.227
8.315
8.529
TFT(Surr)
8.598
8.680
8.907
8.829
9.065
8.993
9.244
9.487
9.696
nC8
10.153
Toluene
10.395
10.844
10.975
11.093
11.283
11.401
11.508
11.740
12.002
nC9
12.761
13.089
12.839
12.979
13.273
13.593
13.860
13.755
13.928
14.145
14.287
14.549
nC10-Decane
14.746
14.831
15.435
15.339
1,2,4-Trimethylbenzene
15.690
15.829
15.778
nc11
16.160
16.386
16.422
16.337
16.504
16.612
16.824
16.951
nC12-Dodecane
17.074
17.170
17.347
17.500
17.600
17.706
18.001
Naphthalene
18.176
18.325
19.052
19.304

RG94 : 01399



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/29/10

7/29/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a006.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a006.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS 2.5
Client ID:
Injection Date: 28-JUL-2010 08:56
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.031	7507	89299	104.3	TFT(Surr)
14.911	0.023	4475	36770	103.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1957108	2.364 M
8015B 2MP-TMB	(4.92 to 15.58)	1664107	3879004	2.331 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	2606200	2.303 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2072468	2.350 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.438	0.031	21902	99.6	TFT(Surr)
14.909	0.023	45851	100.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.715	0.028	7095	5.37	Benzene
10.306	0.034	94086	71.29	Toluene
12.840	0.036	27296	21.97	Ethylbenzene
12.981	0.039	105425	78.29	M/P-Xylene
13.756	0.032	43640	33.97	O-Xylene
5.306	0.019	82935	233.09	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100728-2.b/0728a006.d

Date : 28-JUL-2010 08:56

Client ID:

Sample Info: GAS 2.5

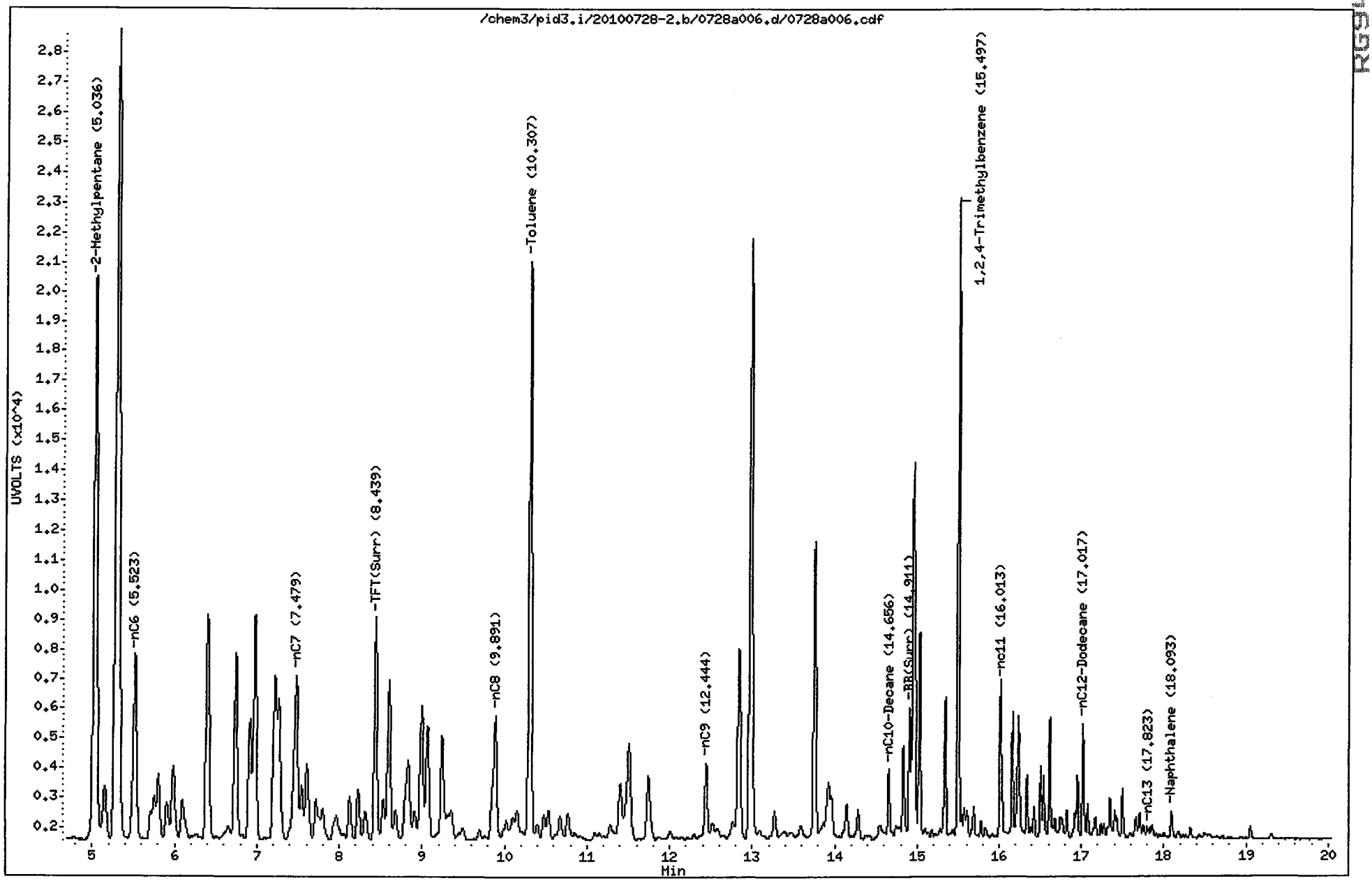
Column phase: RTX 502-2 FID

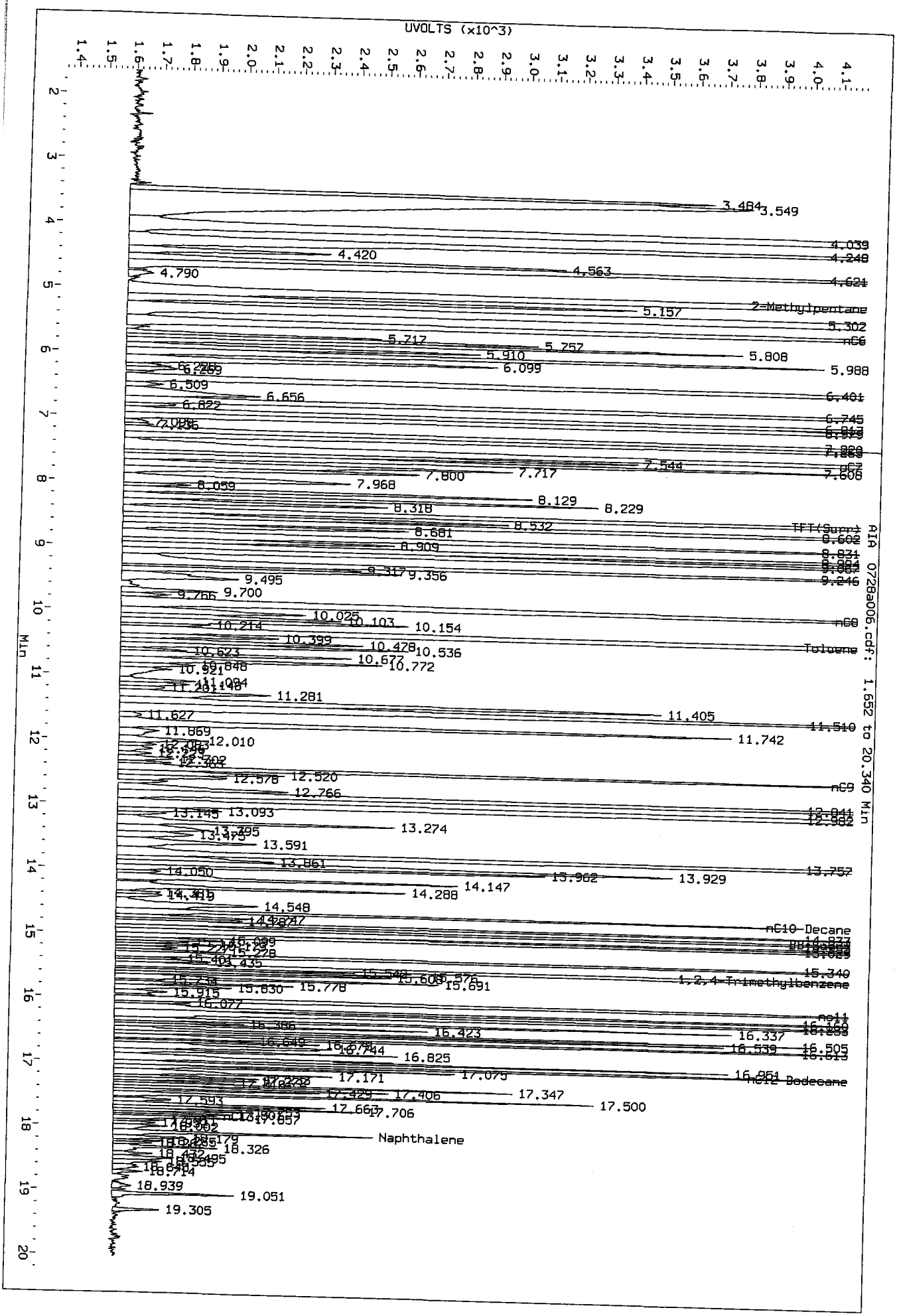
Instrument: pid3.i

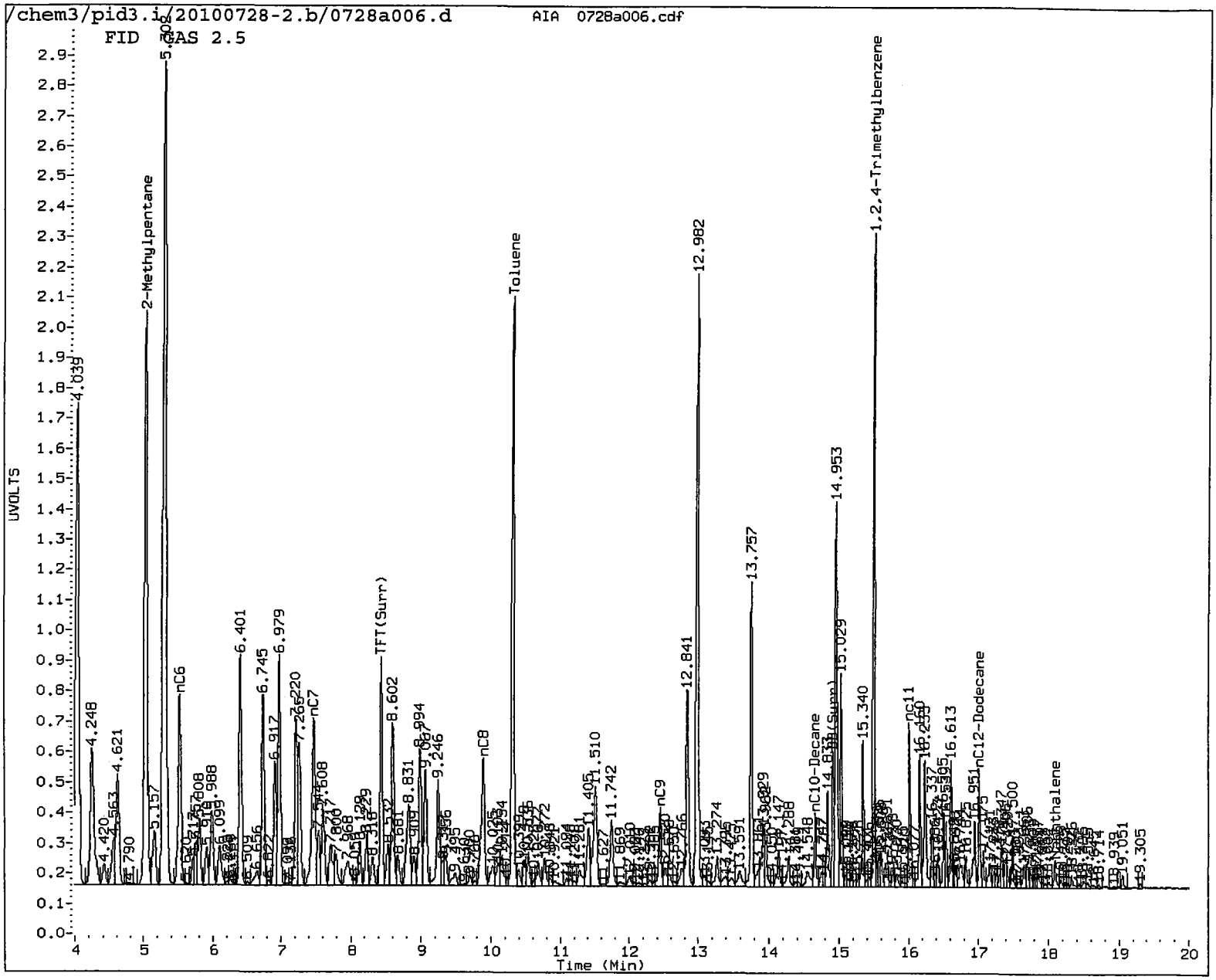
Operator: MH

Column diameter: 0.18

RG31 : 01402




Data File: /chem3/pid3.i/20100728-2.b/0728a006.d/0728a006.cdf
Injection Date: 28-JUL-2010 08:56
Instrument: pid3.i
Client Sample ID:
UVOLTS (x10^3)
Min
AIA 0728a006.cdf: 1.652 to 20.340 Min
3.484
3.549
4.039
4.248
4.420
4.563
4.621
4.790
2-Methylpentane
5.157
5.302
nC6
5.717
5.910
5.252
5.808
6.099
5.988
6.509
6.656
6.401
6.822
6.745
7.544
pC7
7.800
7.717
7.608
8.059
7.968
8.129
8.318
8.229
TFT(Surr)
8.532
8.681
8.602
8.909
8.831
9.317
9.356
9.246
9.495
9.700
nC8
10.025
10.103
10.154
10.214
10.399
10.478
10.536
Toluene
10.623
10.677
10.772
10.848
11.281
11.627
11.405
11.510
11.869
11.742
12.010
12.578
12.520
nC9
12.766
13.145
13.093
13.274
13.591
13.861
13.962
13.929
13.757
14.050
14.288
14.147
14.548
nC10-Decane
15.340
1,2,4-Trimethylbenzene
15.915
15.830
15.778
15.691
16.077
nC11
16.423
16.337
16.539
16.505
16.649
16.825
17.171
17.075
16.951
nC12-Dodecane
17.429
17.406
17.347
17.593
17.706
17.500
Naphthalene
18.326
18.939
19.051
19.305



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/29/10

MS 7/29/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a007.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a007.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS 5
Client ID:
Injection Date: 28-JUL-2010 09:20
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.031	7878	94697	109.5	TFT(Surr)
14.912	0.024	4741	41421	110.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	4003725	4.837
8015B 2MP-TMB	(4.92 to 15.58)	1664107	7856270	4.721 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	5316980	4.698 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	4221581	4.786

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.438	0.031	23349	106.2	TFT(Surr)
14.910	0.023	47815	104.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.716	0.029	14610	11.05	Benzene
10.308	0.037	191522	145.11	Toluene
12.842	0.038	56084	45.13	Ethylbenzene
12.985	0.043	209817	155.81	M/P-Xylene
13.758	0.033	88195	68.64	O-Xylene
5.308	0.021	162558	456.88	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

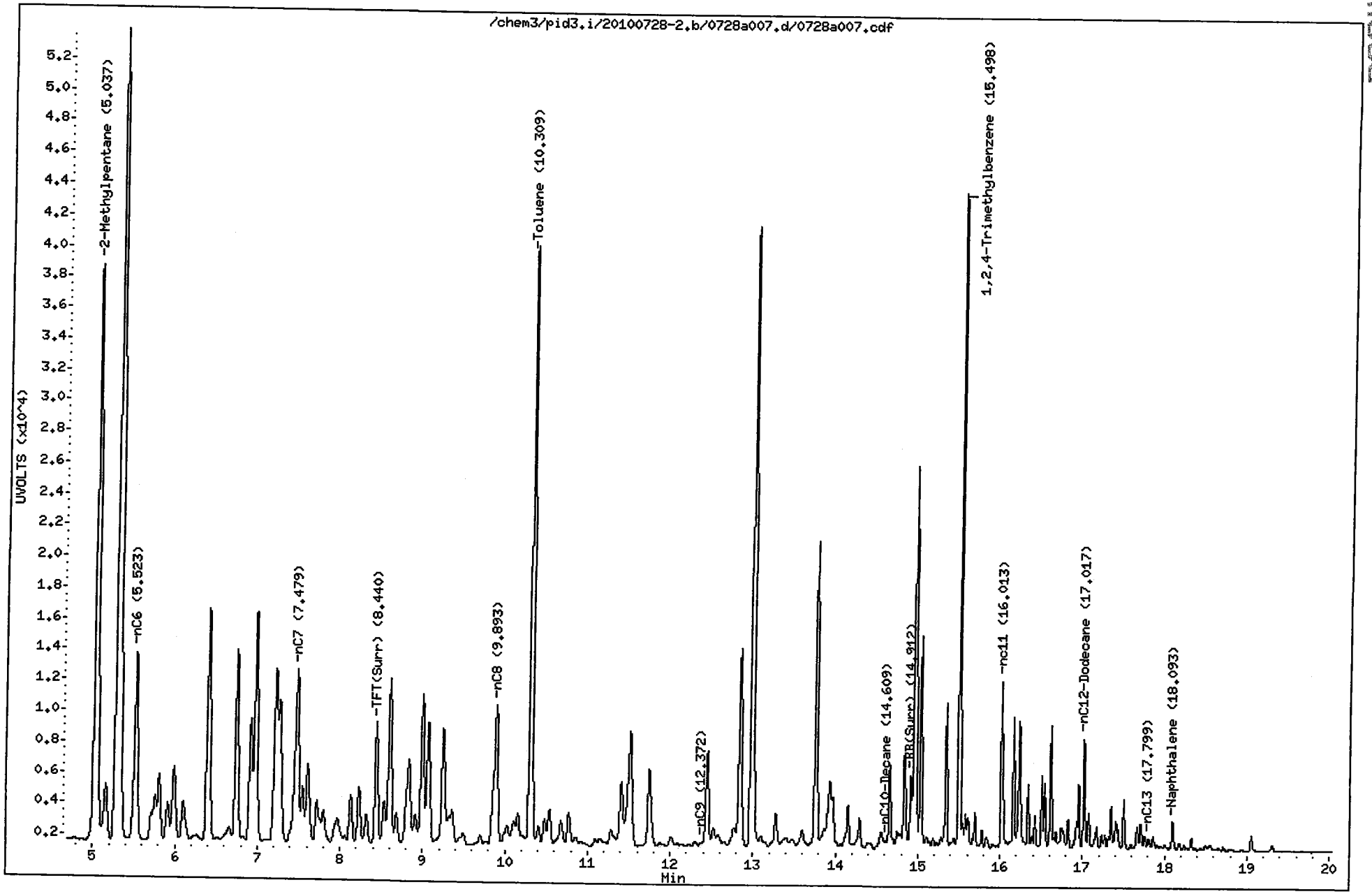
Data File: /chem3/pid3.i/20100728-2.b/0728a007.d
Date : 28-JUL-2010 09:20
Client ID:
Sample Info: GAS 5

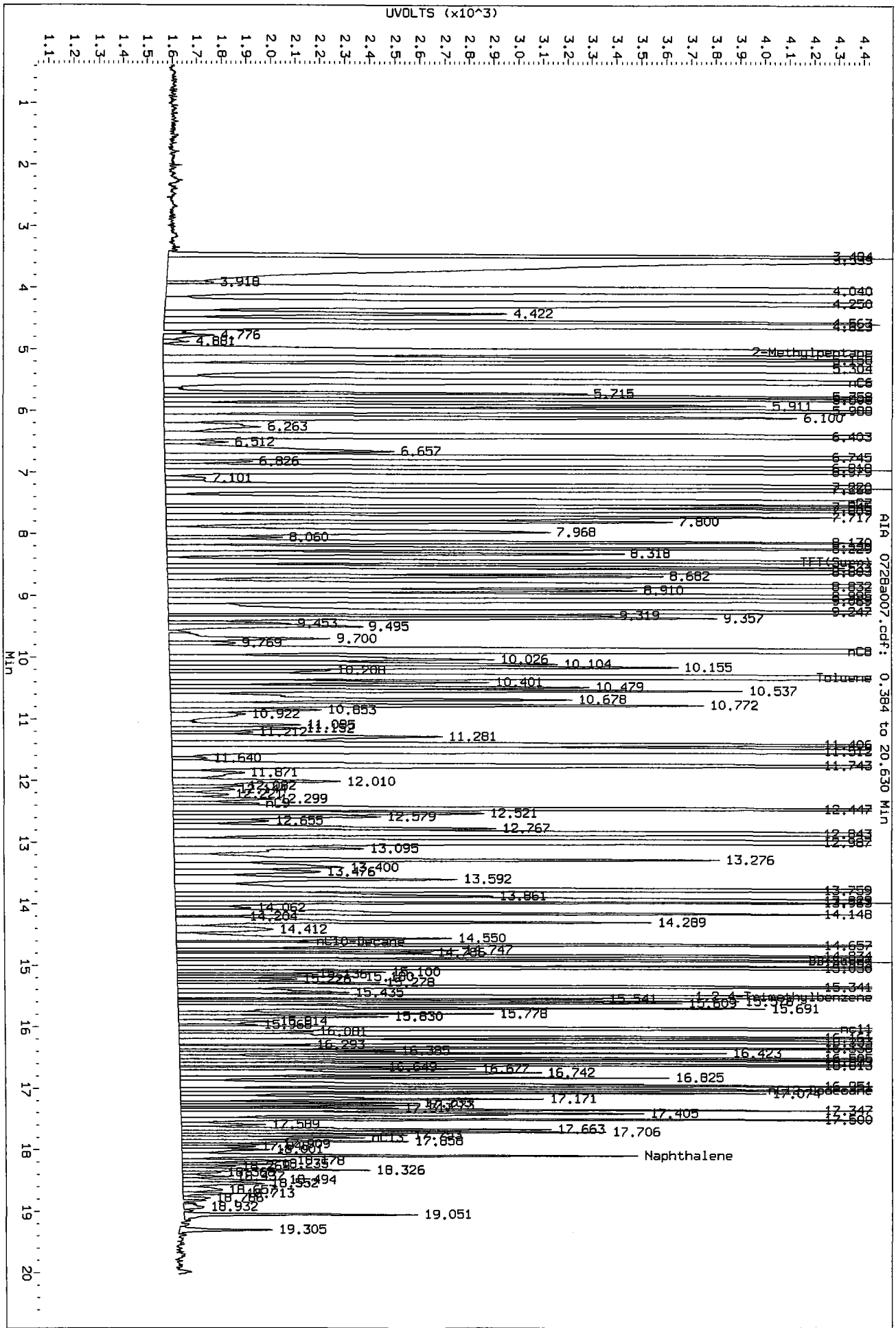
Column phase: RTX 502-2 FID

Instrument: pid3.i

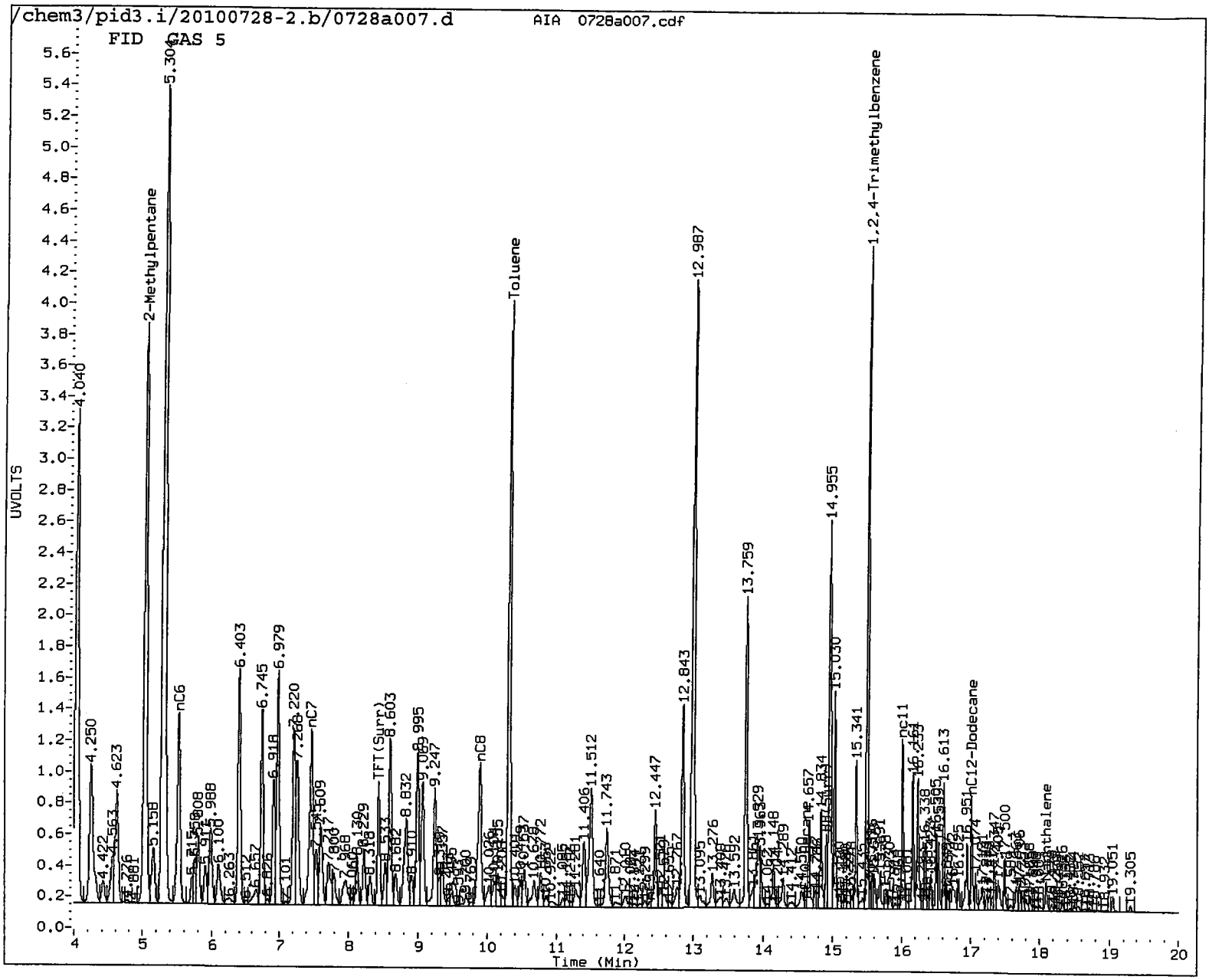
Operator: MH
Column diameter: 0.18

RG94 : 01406




UVOLTS (x10^3)
Min
AIA 072Ba007.cdf: 0.384 to 20.630 Min
Data File: /chem3/pid3.i/20100728-2.b/072Ba007.d/072Ba007.cdf
Injection Date: 28-JUL-2010 09:20
Instrument: pid3.i
Client Sample ID:
2=Methylpentane
nC6
nC8
Toluene
nC10-Decane
1,2,4-Trimethylbenzene
nC11
nC12-Dodecane
nC13
Naphthalene
3.918
4.422
4.776
4.881
5.715
5.911
6.100
6.263
6.512
6.657
6.826
7.101
7.800
7.968
8.060
8.318
8.682
8.910
9.319
9.357
9.453
9.495
9.769
9.700
10.026
10.104
10.155
10.401
10.479
10.537
10.678
10.772
10.922
10.853
11.281
11.640
11.871
12.010
12.299
12.655
12.579
12.521
12.767
13.095
13.276
13.476
13.400
13.592
13.861
14.062
14.204
14.289
14.412
14.550
14.747
15.100
15.435
15.541
15.691
15.830
15.778
16.081
16.293
16.385
16.423
16.649
16.677
16.742
16.825
17.171
17.405
17.589
17.663
17.706
17.858
18.326
18.932
19.051
19.305

RG94:01407



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/29/10

2/29/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a008.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a008.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS 20
Client ID:
Injection Date: 28-JUL-2010 09:45
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.032	10794	142846	150.0	TFT(Surr)
14.914	0.026	6397	57315	148.5	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	16788832	20.281
8015B 2MP-TMB	(4.92 to 15.58)	1664107	34760005	20.888
AK101 nC6-nC10	(5.41 to 14.53)	1131784	24502732	21.650
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	17514258	19.857

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.032	28146	128.0	TFT(Surr)
14.834	-0.052	109465	240.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.719	0.032	57953	43.83	Benzene
10.317	0.046	742279	562.41	Toluene
12.772	-0.032	18288	14.72	Ethylbenzene
13.001	0.059	811732	602.78	M/P-Xylene
13.765	0.041	355553	276.74	O-Xylene
5.321	0.033	530538	1491.10	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100728-2.b/0728a008.d

Date : 28-JUL-2010 09:45

Client ID:

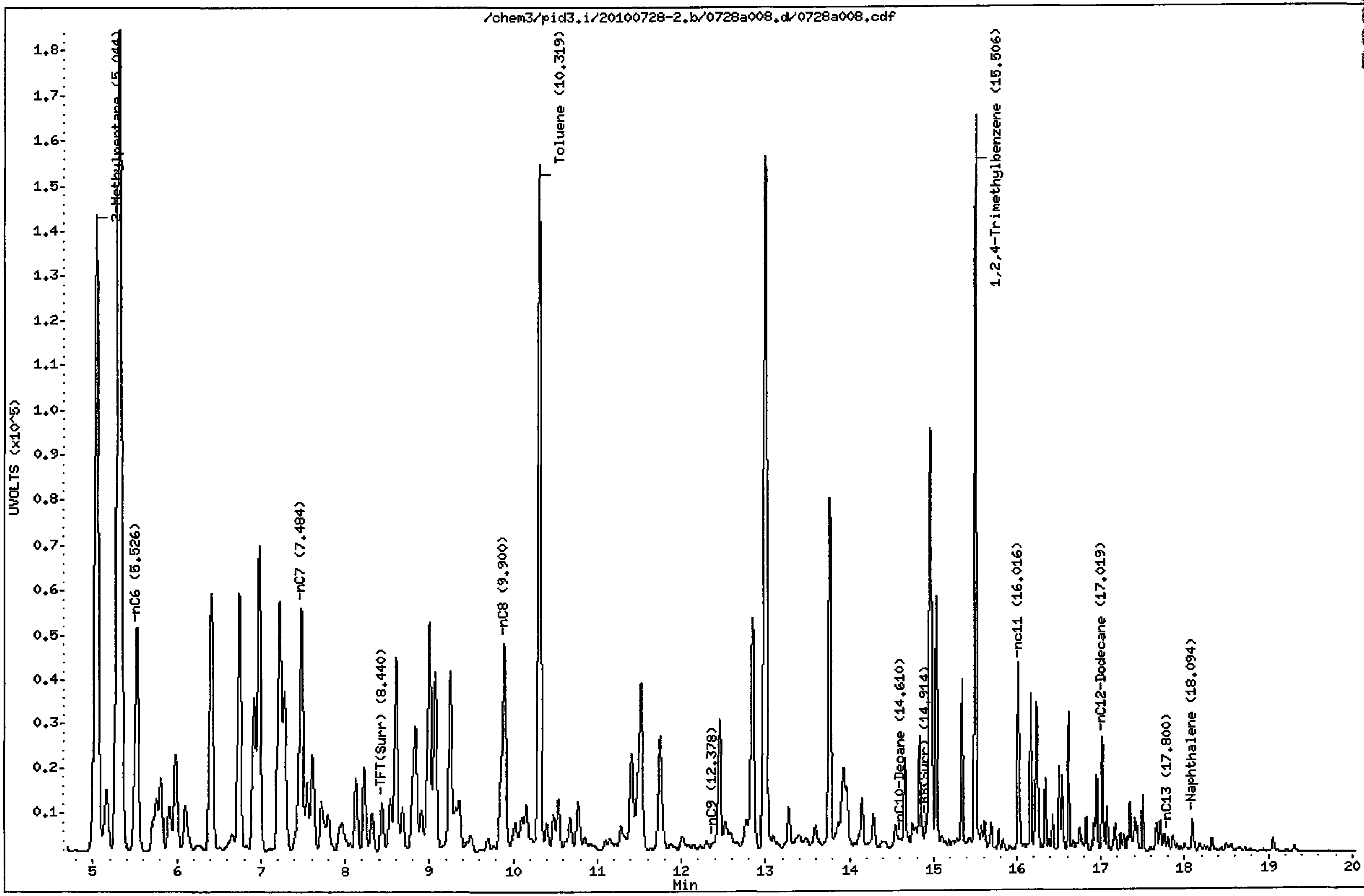
Sample Info: GAS 20

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100728-2.b/0728a010.d
Data file 2: /chem3/pid3.i/20100728-1.b/0728a010.d
Method: /chem3/pid3.i/20100728-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GAS ICV
Client ID:
Injection Date: 28-JUL-2010 10:34
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.032	7179	85915	99.7	TFT(Surr)
14.911	0.023	4354	33856	101.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

	Range	RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	2492293	3.011 M
8015B 2MP-TMB	(4.92 to 15.58)	1664107	3736060	2.245 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	2858584	2.526 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2556570	2.899 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.032	21749	98.9	TFT(Surr)
14.909	0.023	46674	102.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.715	0.029	38928	29.44	Benzene
10.309	0.037	288200	218.36	Toluene
12.842	0.037	55963	45.04	Ethylbenzene
12.983	0.041	219824	163.24	M/P-Xylene
13.757	0.033	89384	69.57	O-Xylene
5.294	0.007	2620	7.36	MTBE

\ Indicates Peak Area was used for quantitation instead of Height
I Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100728-2.b/0728a010.d

Date : 28-JUL-2010 10:34

Client ID:

Sample Info: GAS ICV

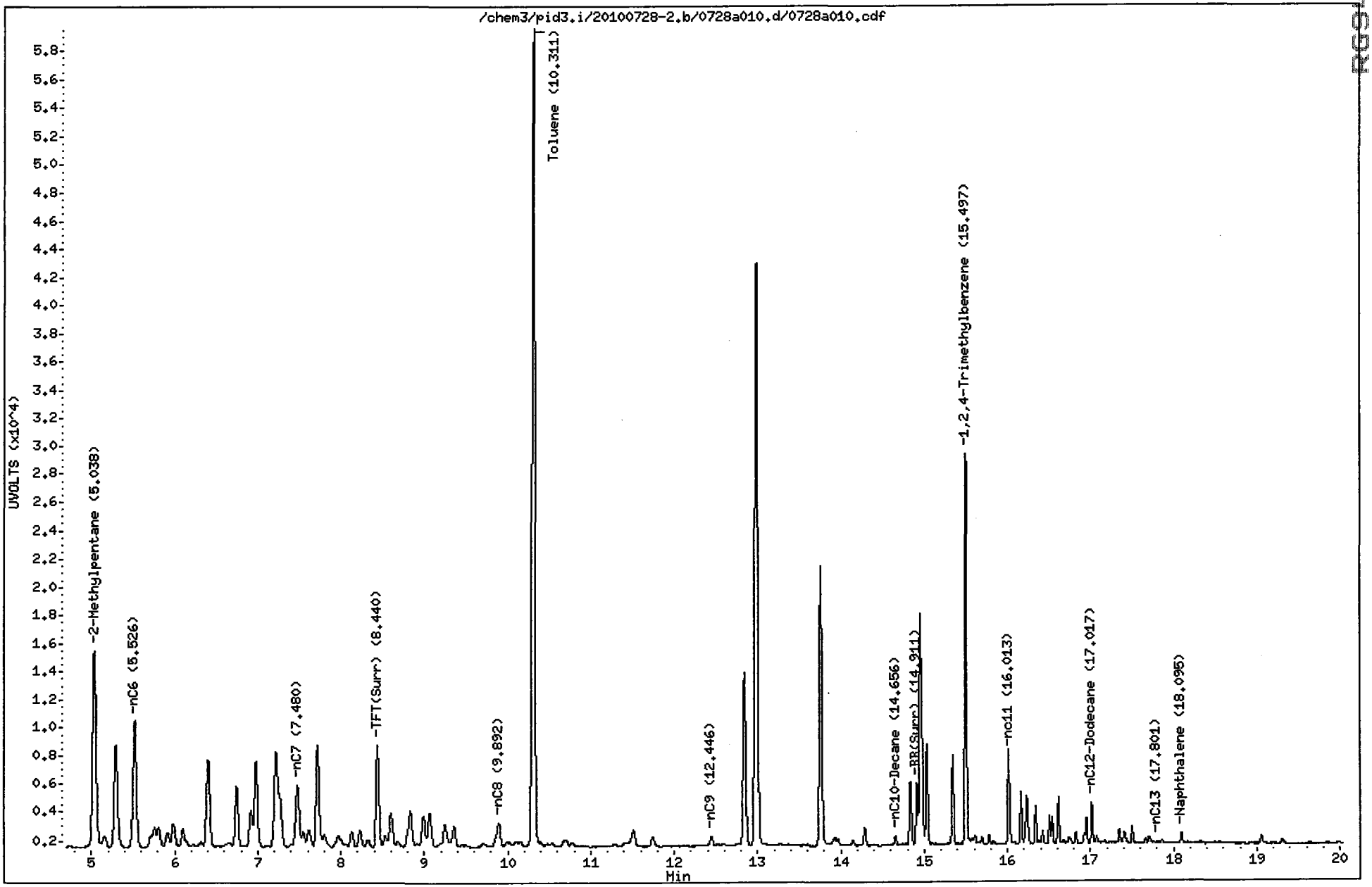
Column phase: RTX 502-2 FID

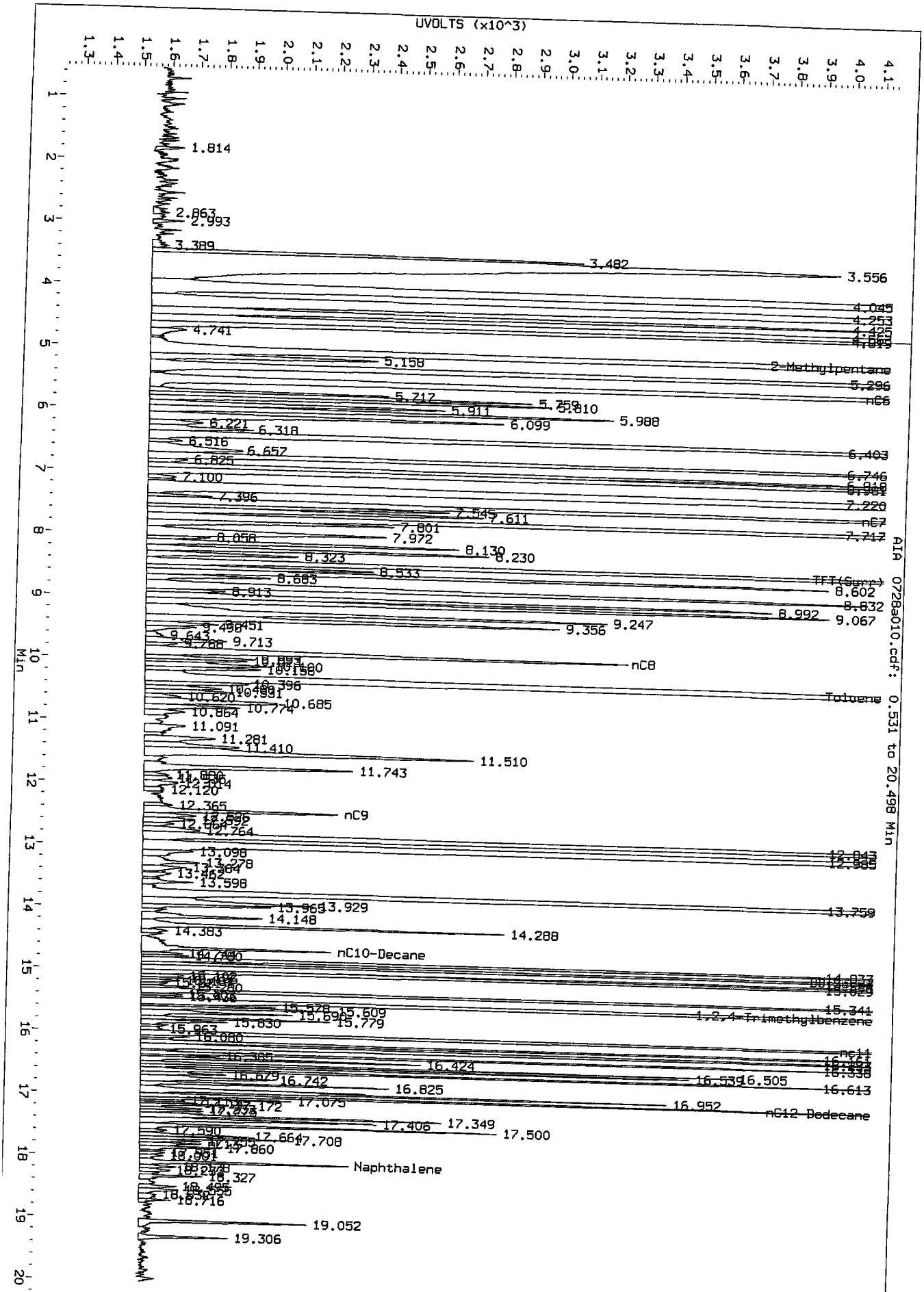
Instrument: pid3.i

Operator: MH

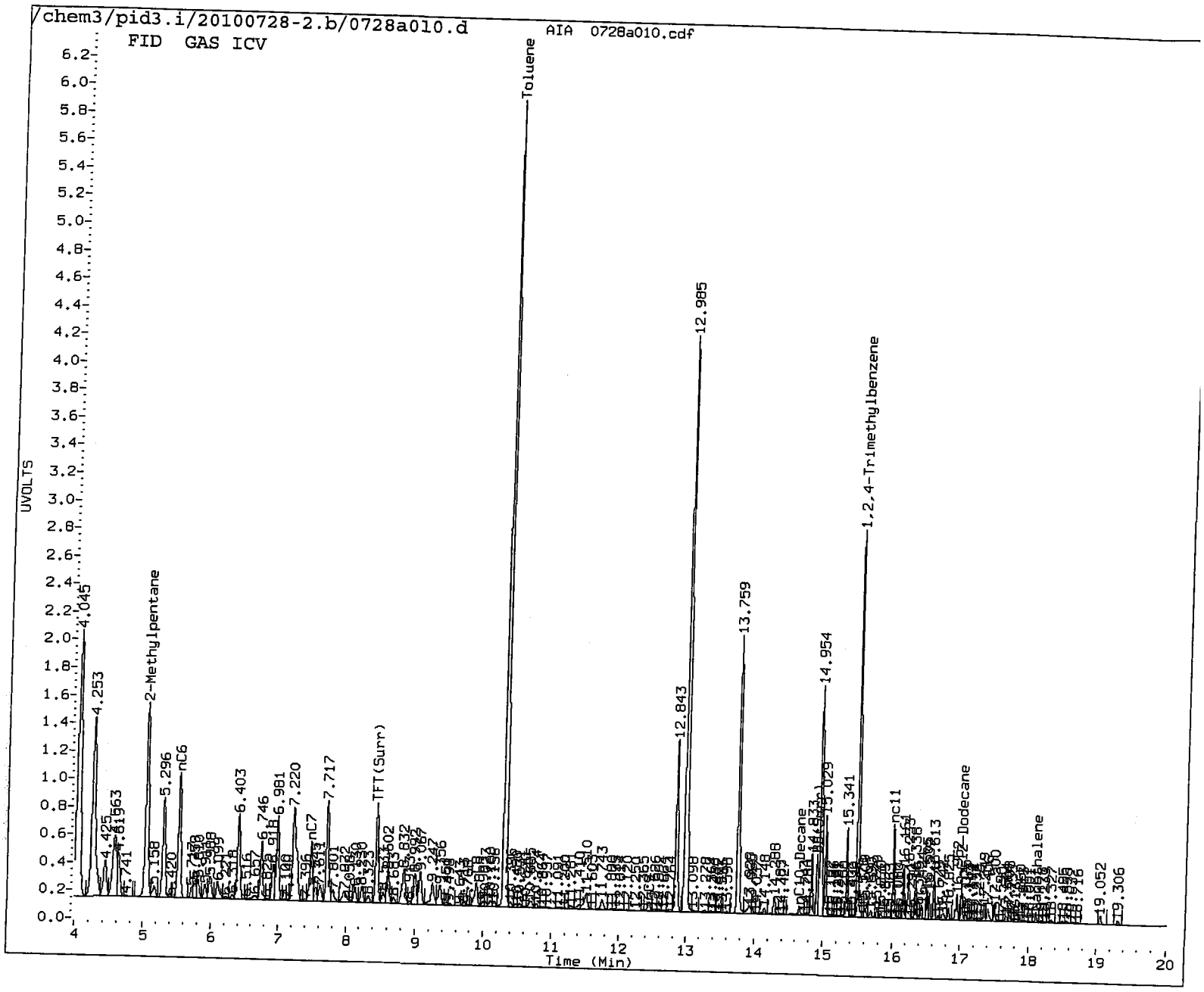
Column diameter: 0.18

RG94-01412




UVOLTS (x10^3)
Min
AIA 0728a010.cdf: 0.531 to 20.498 Min
Data File: /chem3/pid3.i/20100728-2.b/0728a010.d/0728a010.cdf
Injection Date: 28-JUL-2010 10:34
Instrument: pid3.i
Client Sample ID:
1.814
2.863
2.993
3.389
3.482
3.556
4.741
5.158
2-Methylpentane
5.296
nC6
5.712
5.759
5.810
5.911
6.099
5.988
6.221
6.318
6.516
6.657
6.825
6.403
7.100
6.746
7.396
7.220
nC7
7.545
7.611
7.801
7.717
8.056
7.972
8.130
8.230
8.323
8.533
TFT(Surr)
8.665
8.602
8.913
8.832
8.992
9.067
9.356
9.247
9.713
nC8
Toluene
10.620
10.685
10.774
10.864
11.091
11.281
11.410
11.510
11.743
12.120
nC9
12.365
12.764
13.098
13.278
13.598
13.759
13.929
14.148
14.383
14.288
nC10-Decane
15.341
1,2,4-Trimethylbenzene
15.609
15.779
15.830
15.963
16.424
16.505
16.613
16.742
16.825
16.952
nC12-Dodecane
17.075
17.349
17.406
17.500
17.708
Naphthalene
16.327
19.052
19.306

RG94 : 01413



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/29/10

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid3.i/20100728-2.b/FID.m
Batch File: /chem3/pid3.i/20100728-2.b
Inst ID: pid3.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	0728a004	0728a005	0728a006	0728a007	0728a008	0728a012
INJ.DATE:	28-JUL-2010	28-JUL-2010	28-JUL-2010	28-JUL-2010	28-JUL-2010	28-JUL-2010
INJ.TIME:	08:07	08:31	08:56	09:20	09:45	11:42

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 2-Methylpentane	5.033	5.033	5.036	5.037	5.044	5.028	5.022	4.952-5.092	5.035	0.005
	18 WAGAS	+++++	+++++	+++++	+++++	+++++	+++++	1.097	1.027-1.167	+++++	+++++
	19 8015B	+++++	+++++	+++++	+++++	+++++	+++++	0.833	0.763-0.903	+++++	+++++
	20 AK101	+++++	+++++	+++++	+++++	+++++	+++++	0.989	0.919-1.059	+++++	+++++
	21 NWGAS	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.930-1.070	+++++	+++++
	2 nC6	5.522	5.521	5.523	5.523	5.526	5.520	5.507	5.437-5.577	5.523	0.002
	3 nC7	7.476	7.477	7.479	7.479	7.484	7.469	7.454	7.384-7.524	7.477	0.005
$	4 TFT(Surr)	8.435	8.437	8.439	8.440	8.440	8.425	8.408	8.338-8.478	8.436	0.006
	5 nC8	9.887	9.889	9.891	9.893	9.900	9.874	9.858	9.788-9.928	9.889	0.009
	6 Toluene	10.301	10.304	10.307	10.309	10.319	10.292	10.273	10.203-10.343	10.306	0.009
	7 nC9	12.438	12.442	12.444	12.447	12.456	12.430	12.409	12.339-12.479	12.443	0.009
	8 nC10-Decane	14.651	14.610	14.656	14.609	14.663	14.644	14.632	14.562-14.702	14.639	0.024
$	9 BB(Surr)	14.907	14.910	14.911	14.912	14.914	14.901	14.888	14.818-14.958	14.909	0.005
	10 1,2,4-Trimethylbenzene	15.493	15.495	15.497	15.498	15.506	15.488	15.477	15.407-15.547	15.496	0.006
	11 nc11	16.011	16.012	16.013	16.013	16.016	16.007	16.020	15.950-16.090	16.012	0.003
	12 nC12-Dodecane	17.017	17.017	17.017	17.017	17.019	17.014	17.008	16.938-17.078	17.017	0.002
	13 nC13	17.823	17.824	17.823	17.799	17.860	17.823	17.814	17.744-17.884	17.825	0.019

Reviewer 1 MH Date: 7/29/10
Reviewer 2 Date: 7/29/10

RG94.0115

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid3.i/20100728-2.b/FID.m
Batch File: /chem3/pid3.i/20100728-2.b
Inst ID: pid3.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
14 Naphthalene	18.093	18.094	18.093	18.093	18.094	18.089	18.082	18.012-18.152	18.093	0.002

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: BETX Curve Client ID: _____

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): BETX

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 6/29/10 Analysis Start Date: 6/29/10

pH ≤ 2.0	YES / NO (NA)	Method Blank In Control?	(YES) / NO
BFB Tune Meets Criteria?	YES / NO (NA)	LCS / LCSD Recovery In Control?	(YES) / NO
Internal Standard Meets Criteria?	YES / NO (NA)	Surrogate Recovery In Control?	(YES) / NO
ICal acceptable?	(YES) / NO	CCal acceptable?	(YES) / NO
Q flag applied?	YES / NO (NA)	Q flag applied?	YES / NO (NA)
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes /NO

Special Analysis Criteria Met? YES / NO / NA

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

BETX ICV Target 25

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 7/10/10

Reviewer: _____ **Date:** 7-10-10

Analytical Resources Inc.: Organics Instrument Log

PID-3 HP 5890 Series II - Serial No.: 2728A-13336

MH 7/1/10

Date: 6/29/10 Analysis: NWTPH6/BETX Analyst: MH

GC Program: BETX Column No: 837213 Column Type: RTX502-2

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 2/2/10 GS 6/29/10 BETX

IS/SS	Ical/Ccal	LCS/ICV
VW632-2	VW607-1	VW629-4
	VW630-4	
	VW629-4	

	Time	Filename	LabID	ClientID	Vial#	pH	DF	
1	0548	0629a001.d	RINSE				1	
2	0613	0629a002.d	RT+BCAL 1				1	
3	0637	0629a003.d	GCAL 1				1	
4	0735	0629a004.d	RINSE				1	
5	0759	0629a005.d	BETX .25				1	
6	0824	0629a006.d	BETX .5				1	
7	0848	0629a007.d	BETX 5				1	
8	0912	0629a008.d	BETX 25				1	
9	0937	0629a009.d	BETX 50				1	
10	1001	0629a010.d	BETX 100				1	
11	1026	0629a011.d	BETX 200				1	
12	1050	0629a012.d	BETX ICV				1	
13	1145	0629a013.d	GCAL 2				1	
14	1210	0629a014.d	LCS0629				1	
15	1234	0629a015.d	LCSD0629				1	
16	1259	0629a016.d	MB0629				1	
17	1344	0629a017.d	RC18B	Trip Blank	2	1	1	
18	1408	0629a018.d	RC18A	Sample 1	2	1	1	
19	1433	0629a019.d	RB54D	92-8S	8	1	1	
20	1458	0629a020.d	RB54E	92-9S	4	1	1	
21	1522	0629a021.d	RB54F	92-10S	4	1	1	
22	1547	0629a022.d	RB54G	51-2	3	1	1	
23	1611	0629a023.d	RB54H	02-1	4	1	1	
24	1636	0629a024.d	RINSE				1	
25	1700	0629a025.d	BCAL 3				1	
26	1725	0629a026.d	GCAL 2				1	

MH 7/1/10

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid3.i/20100629-2.b

ARI Job No.: BETX   Method: FID.m   Instrument: pid3.i   Date: 29-JUN-2010

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0759	0629a005.d	BETX .25		1	NO MANUAL INTEGRATION
0824	0629a006.d	BETX .5		1	NO MANUAL INTEGRATION
0848	0629a007.d	BETX 5		1	NO MANUAL INTEGRATION
0912	0629a008.d	BETX 25		1	NO MANUAL INTEGRATION
0937	0629a009.d	BETX 50		1	NO MANUAL INTEGRATION
1001	0629a010.d	BETX 100		1	NO MANUAL INTEGRATION
1026	0629a011.d	BETX 200		1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUN-2010 07:59
End Cal Date : 29-JUN-2010 10:26
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid3.i/20100629-1.b/PIDB.m
Cal Date : 29-Jun-2010 11:12 monicah
Curve Type : Average

Calibration File Names:
Level 1: /chem3/pid3.i/20100629-1.b/0629a005.d/0629a005.cdf
Level 2: /chem3/pid3.i/20100629-1.b/0629a006.d/0629a006.cdf
Level 3: /chem3/pid3.i/20100629-1.b/0629a007.d
Level 4: /chem3/pid3.i/20100629-1.b/0629a008.d
Level 5: /chem3/pid3.i/20100629-1.b/0629a009.d
Level 6: /chem3/pid3.i/20100629-1.b/0629a010.d
Level 7: /chem3/pid3.i/20100629-1.b/0629a011.d

Compound	0.25000 Level 1	0.50000 Level 2	5.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	200.000 Level 7	RRF	% RSD	
1 MTBE	464 343	288	367	346	348	334		356	15.046	
2 Benzene	1564 1254	1462	1257	1240	1256	1221		1322	10.156	
4 Toluene	1608 1294	1252	1288	1275	1275	1247		1320	9.717	
15 Chlorobenzene	+++++ +++++	+++++	+++++	+++++	+++++	+++++		+++++	+++++	<-
5 Ethylbenzene	1404 1183	1420	1164	1185	1190	1152		1243	9.380	
6 M/P-Xylene	1614 1268	1381	1314	1300	1302	1247		1347	9.293	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUN-2010 07:59
End Cal Date : 29-JUN-2010 10:26
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid3.i/20100629-1.b/PIDB.m
Cal Date : 29-Jun-2010 11:12 monicah
Curve Type : Average

Compound	0.25000 Level 1 / 200.000 Level 7	0.50000 Level 2	5.000 Level 3	25.000 Level 4	50.000 Level 5	100.000 Level 6	___ RRF	% RSD	
7 O-Xylene	1352 / 1307	1232	1295	1269	1282	1256	1285	3.016	
13 1,3,5 Trimethylbenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
14 1,2,4 Trimethyl benzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
16 1,3 Dichlorobenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
17 1,4 Dichlorobenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
18 1,2 Dichlorobenzene	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
$ 3 TFT(Surr)	243 / 219	220	213	214	217	212	220	4.943	
$ 8 BB(Surr)	496 / 463	451	434	440	456	450	456	4.411	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-JUN-2010 07:59
End Cal Date : 29-JUN-2010 10:26
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : HP Genie
Method file : /chem3/pid3.i/20100629-2.b/FID.m
Cal Date : 29-Jun-2010 11:13 monicah
Curve Type : Average

Compound	0.000e+00 Level 1	0.000e+00 Level 2	0.000e+00 Level 3	0.000e+00 Level 4	0.000e+00 Level 5	0.000e+00 Level 6	RRF	% RSD	
	0.000e+00 Level 7								
14 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++						+++++	+++++	<-
$ 4 TFT(Surr)	78.13636	73.54545	71.97015	70.36000	70.48120	69.03933			
	70.30000						71.97607	4.271	
$ 9 BB(Surr)	48.72727	43.22727	42.49254	41.18000	42.06767	41.53933			
	42.23000						43.06630	5.994	

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a005.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a005.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX .25
Client ID:
Injection Date: 29-JUN-2010 07:59
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.418	-0.021	1719	20323	23.9	TFT(Surr)
14.897	-0.015	1072	10075	24.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	23668	0.034
8015B 2MP-TMB	(4.93 to 15.54)	22061	0.016
AK101 nC6-nC10	(5.50 to 14.63)	15306	0.014
NWTPHG Tol-Nap	(10.21 to 18.23)	24708	0.033

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.417	-0.021	5356	24.4	TFT(Surr)
14.893	-0.016	10910	23.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.694	-0.019	391	0.30	Benzene
10.287	-0.021	402	0.30N	Toluene
12.817	-0.030	351	0.28N	Ethylbenzene
12.955	-0.034	807	0.60	M/P-Xylene
13.737	-0.025	338	0.26N	O-Xylene
5.283	-0.017	116	0.33N	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

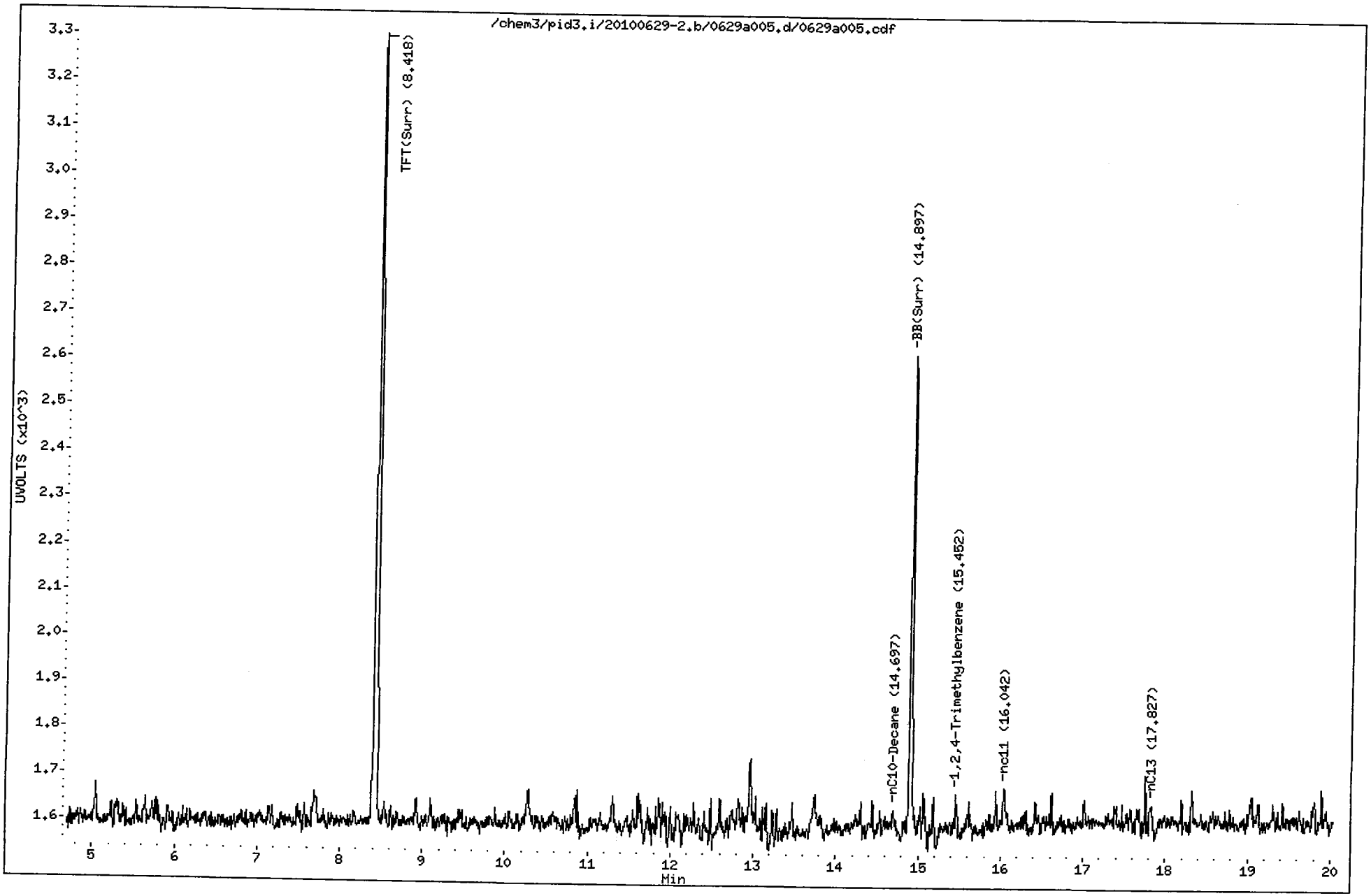
Data File: /chem3/pid3.i/20100629-2.b/0629a005.d
Date : 29-JUN-2010 07:59
Client ID:
Sample Info: BETX .25

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

RG91-011424



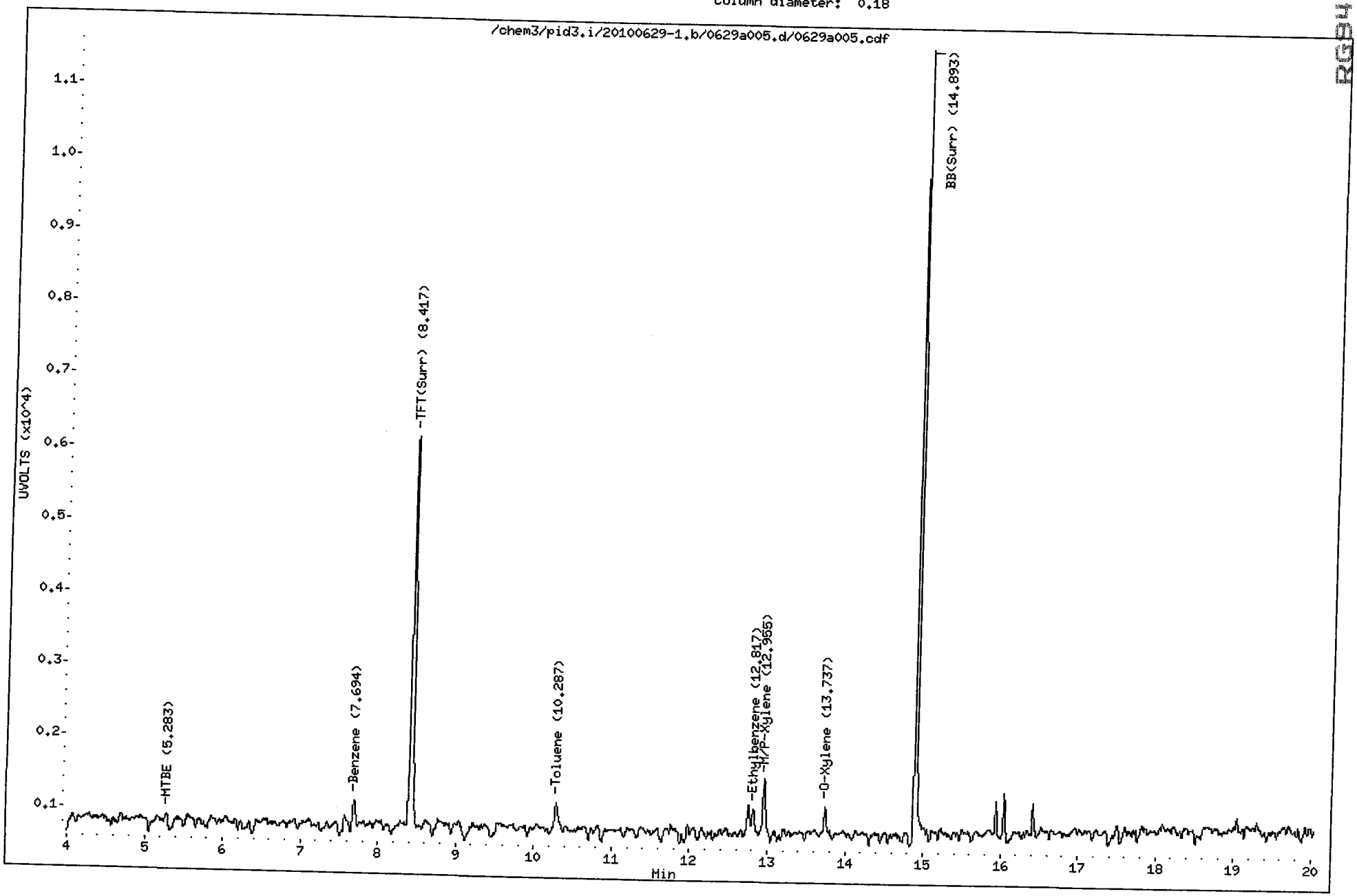
Data File: /chem3/pid3.i/20100629-1.b/0629a005.d
Date : 29-JUN-2010 07:59
Client ID:
Sample Info: BETX .25

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

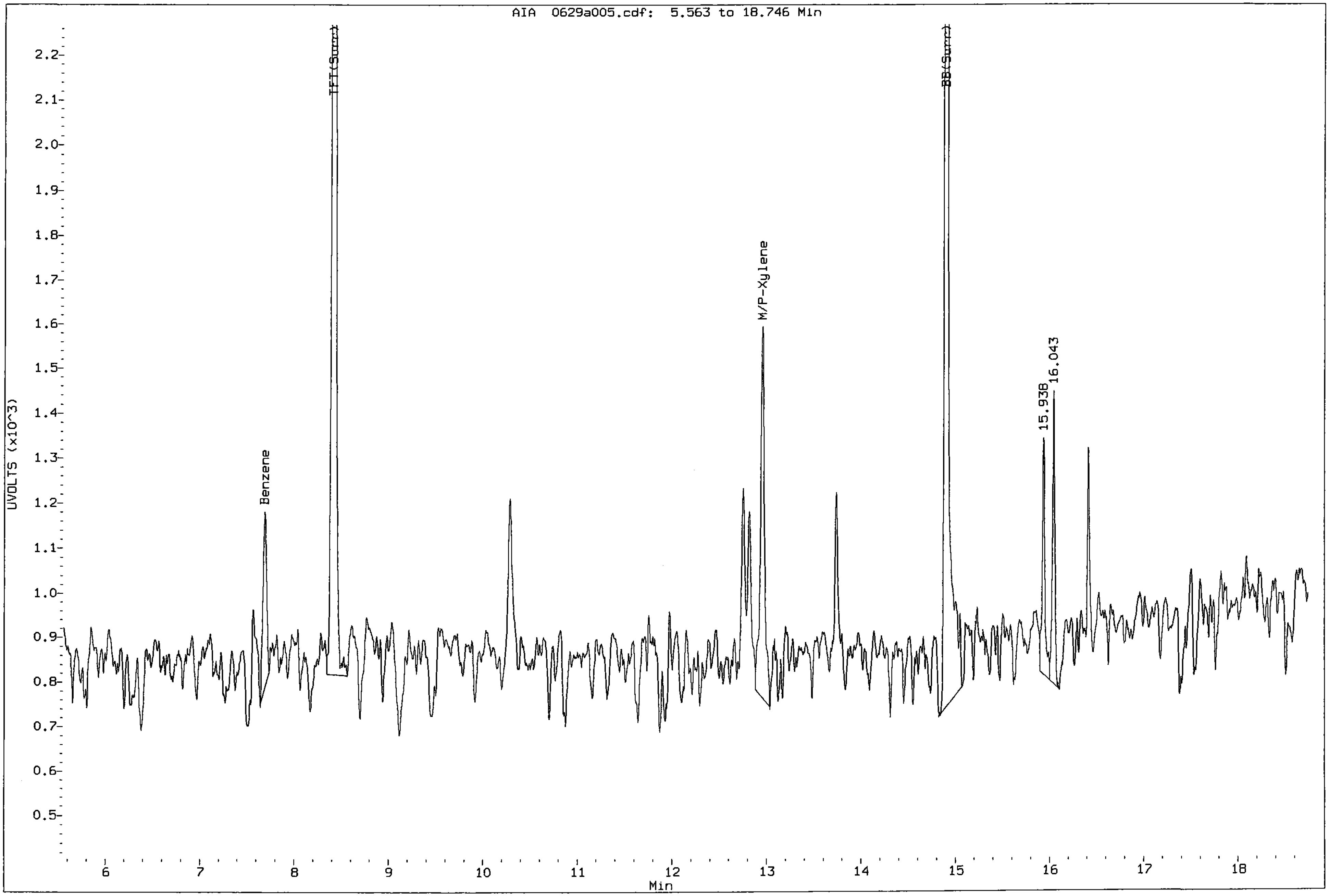
Column phase: RTX 502-2 PID

RGBL:01125



MH 7/10/10

Data File: /chem3/pid3.i/20100629-1.b/0629a005.d/0629a005.cdf
Injection Date: 29-JUN-2010 07:59
Instrument: pid3.i
Client Sample ID:



Data File: /chem3/pid3.i/20100629-1.b/0629a005.d/0629a005.cdf
Injection Date: 29-JUN-2010 07:59
Instrument: pid3.i
Client Sample ID:

MANUAL ADJUSTMENTS
Peak not found
Poor Chromatography
Baseline Correction
Totals Calculation
Other

Analyst MH Date 7/10/10

RG94 : 01427

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a006.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a006.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX .5
Client ID:
Injection Date: 29-JUN-2010 08:24
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.430	-0.008	3236	38151	45.0	TFT(Surr)
14.906	-0.006	1902	15702	44.2	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	29425	0.042
8015B 2MP-TMB	(4.93 to 15.54)	33980	0.025
AK101 nC6-nC10	(5.50 to 14.63)	33979	0.031
NWTPHG Tol-Nap	(10.21 to 18.23)	34396	0.046

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.429	-0.008	9683	44.0	TFT(Surr)
14.904	-0.006	19865	43.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.706	-0.007	731	0.55	Benzene
10.297	-0.011	626	0.47N	Toluene
12.832	-0.015	710	0.57	Ethylbenzene
12.969	-0.020	1381	1.03	M/P-Xylene
13.750	-0.012	616	0.48N	O-Xylene
5.300	-0.001	144	0.40N	MTBE

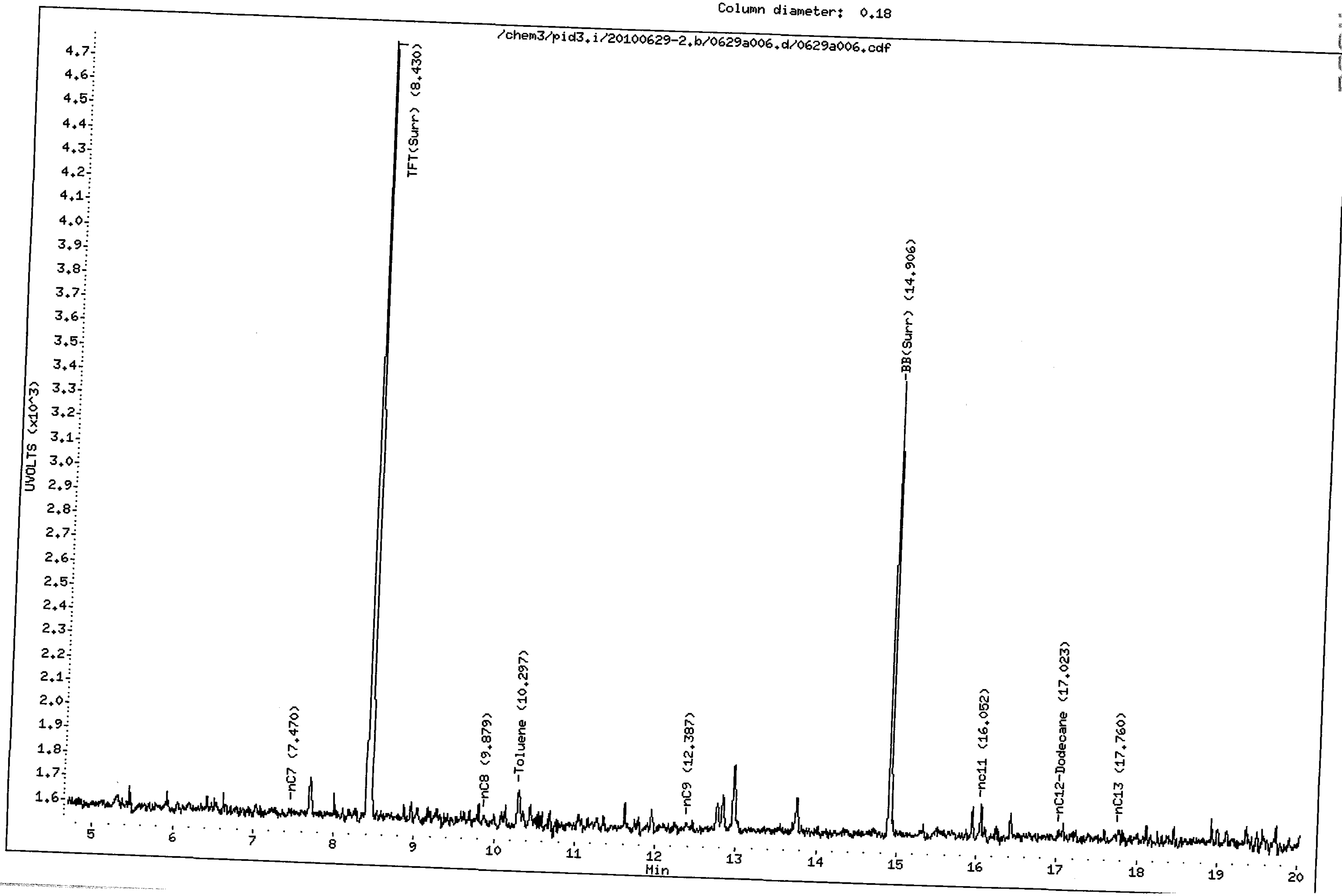
A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100629-2.b/0629a006.d
Date : 29-JUN-2010 08:24
Client ID:
Sample Info: BETX .5

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18



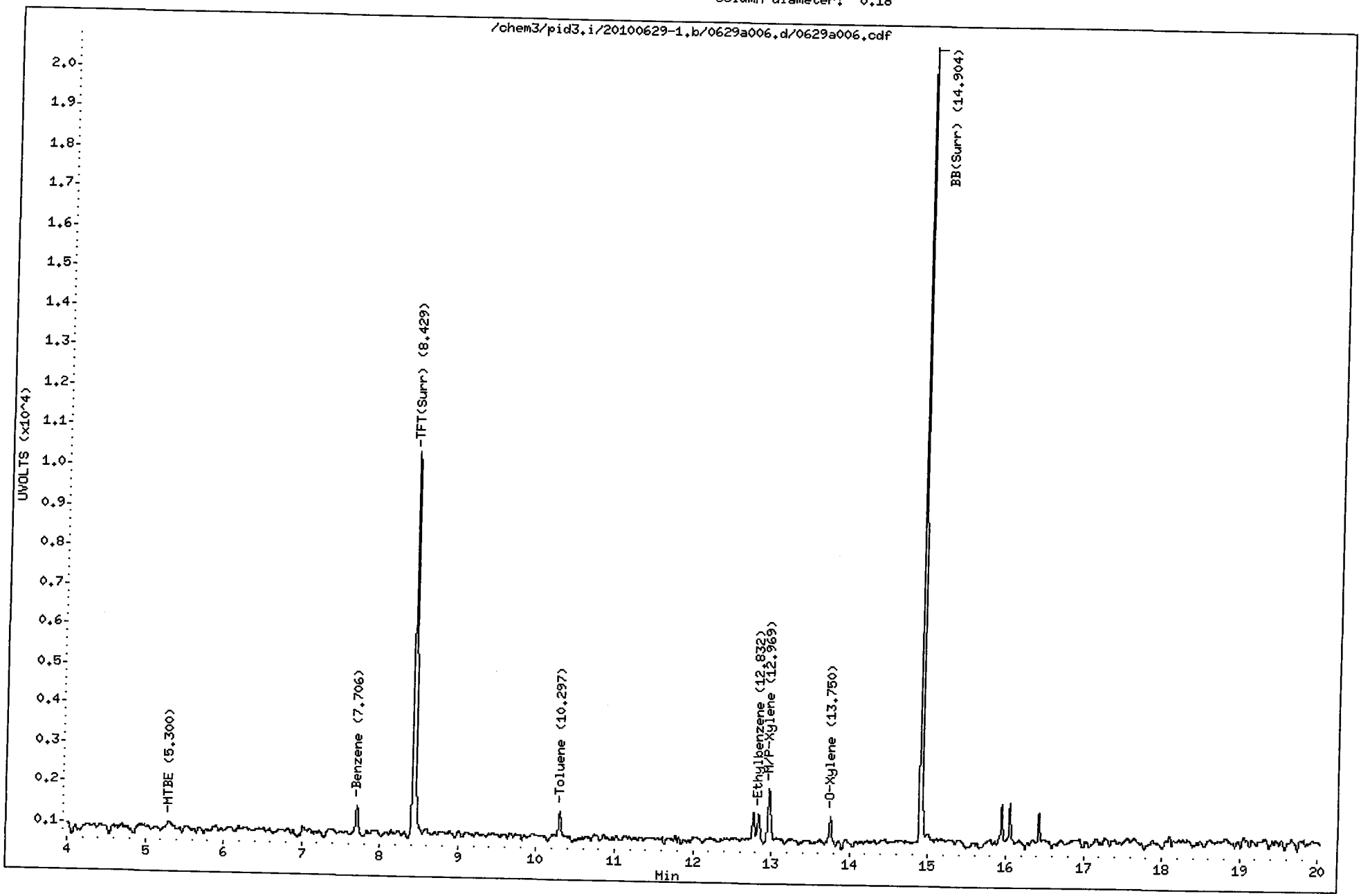
Data File: /chem3/pid3.i/20100629-1.b/0629a006.d
Date : 29-JUN-2010 08:24
Client ID:
Sample Info: BETX .5

Column phase: RTX 502-2 PID

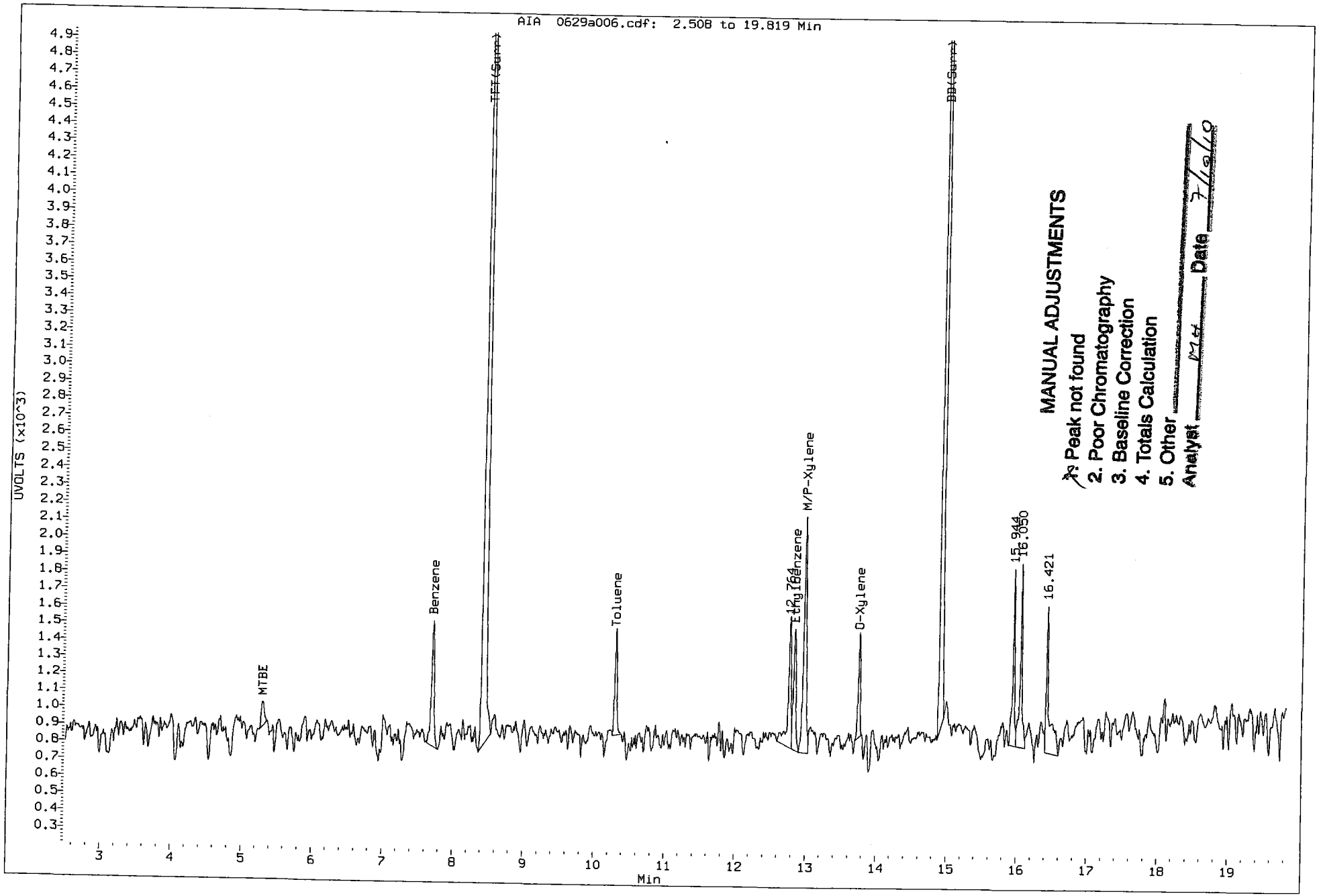
Instrument: pid3.i

Operator: MH
Column diameter: 0.18

RG91-01430



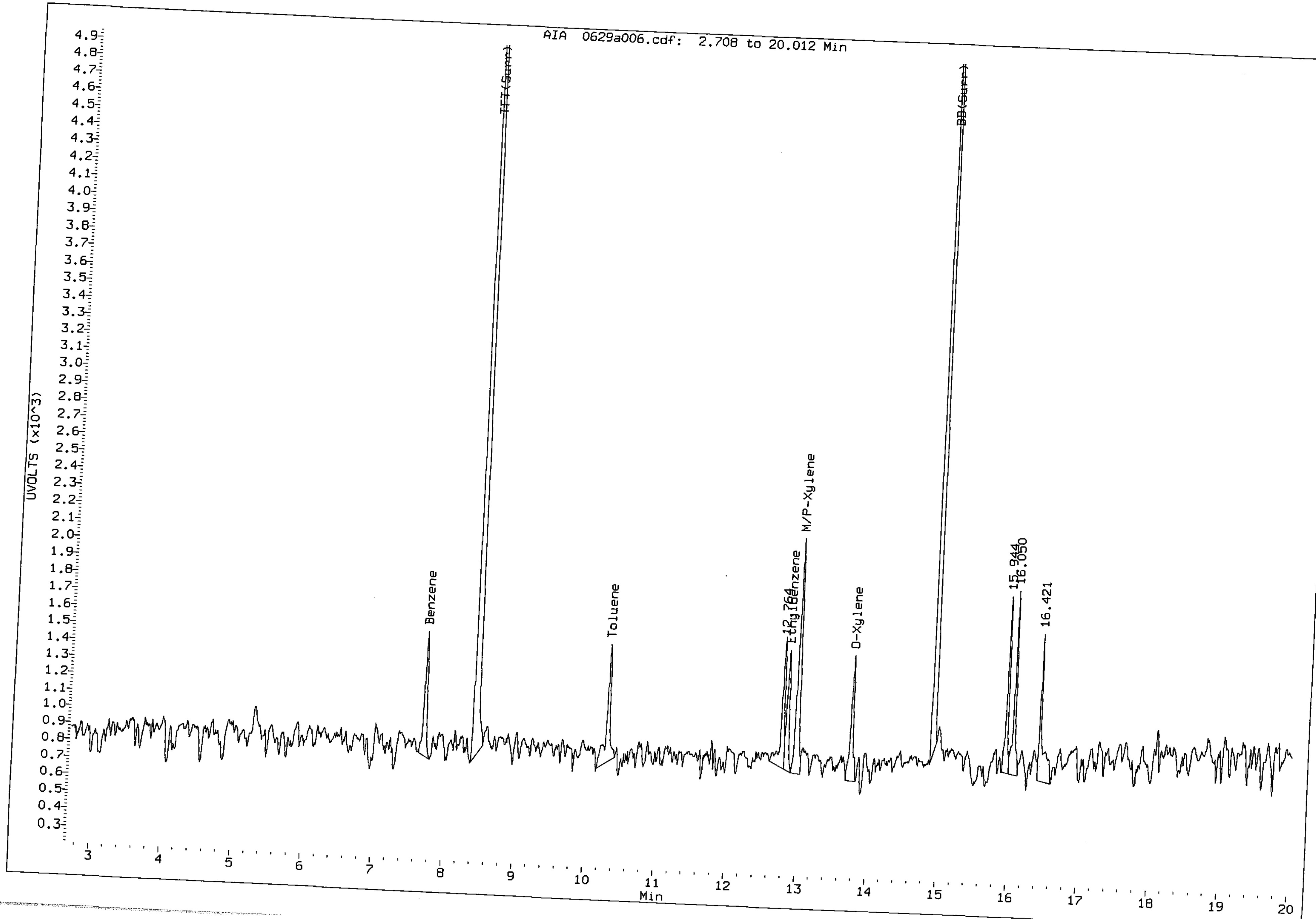
Data File: /chem3/pid3.i/20100629-1.b/0629a006.d/0629a006.cdf
Injection Date: 29-JUN-2010 08:24
Instrument: pid3.i
Client Sample ID:



RG94 : 01431

MH
7/10/10

Data File: /chem3/pid3.i/20100629-1.b/0629a006.d/0629a006.cdf
Injection Date: 29-JUN-2010 08:24
Instrument: pid3.i
Client Sample ID:



RG94:01432

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a007.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a007.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX 5
Client ID:
Injection Date: 29-JUN-2010 08:48
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.435	-0.003	4822	56817	67.0	TFT(Surr)
14.908	-0.003	2847	24157	66.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	137046	0.197
8015B 2MP-TMB	(4.93 to 15.54)	118984	0.088
AK101 nC6-nC10	(5.50 to 14.63)	107982	0.100
NWTPHG Tol-Nap	(10.21 to 18.23)	152307	0.206

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.434	-0.003	14296	65.0	TFT(Surr)
14.907	-0.003	29105	63.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.709	-0.004	6287	4.76	Benzene
10.302	-0.006	6442	4.88	Toluene
12.837	-0.010	5819	4.68	Ethylbenzene
12.974	-0.015	13142	9.76	M/P-Xylene
13.753	-0.009	6477	5.04	O-Xylene
5.297	-0.003	1833	5.15	MTBE

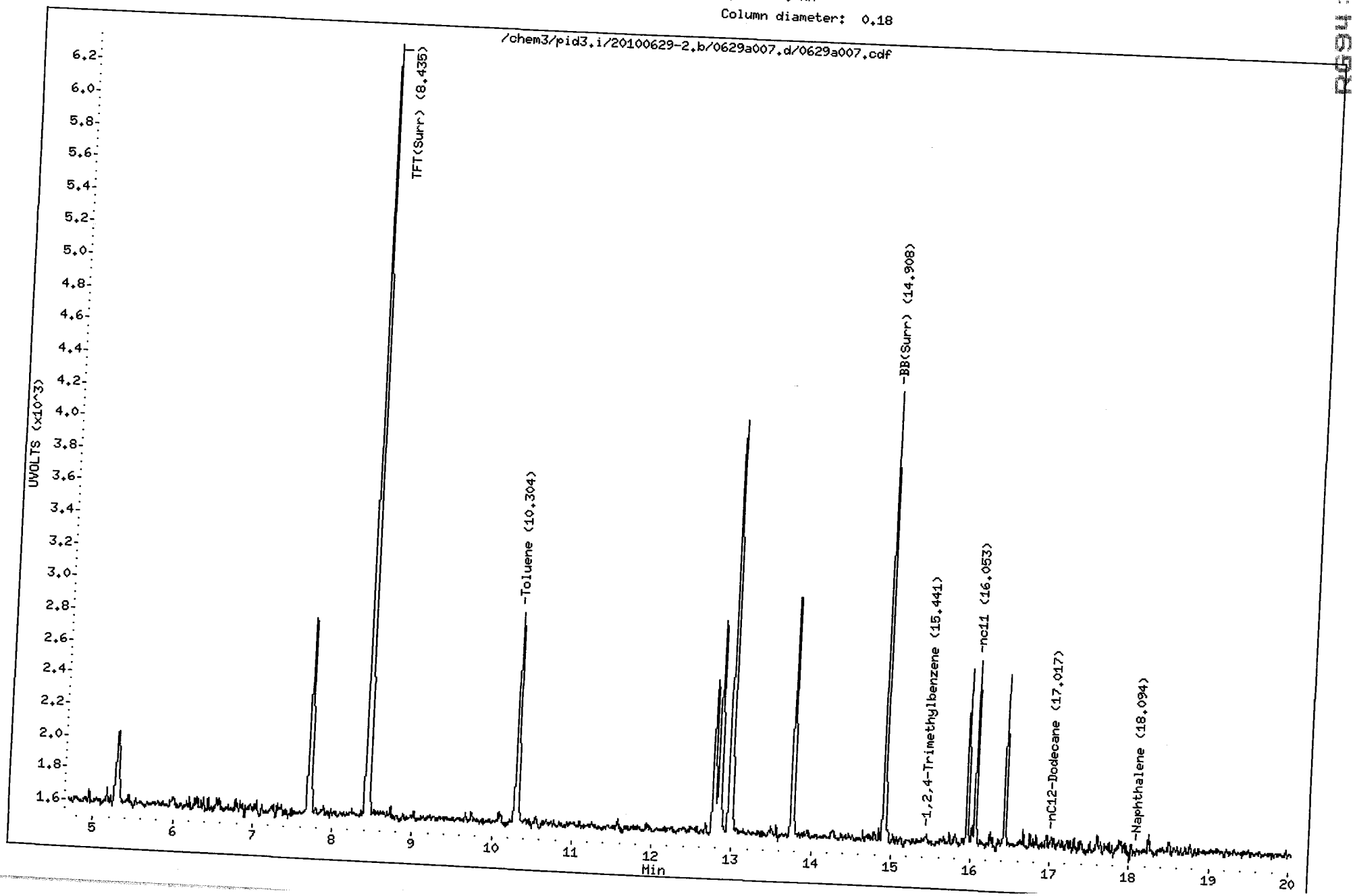
A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100629-2.b/0629a007.d
Date : 29-JUN-2010 08:48
Client ID:
Sample Info: BETX 5

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 FID

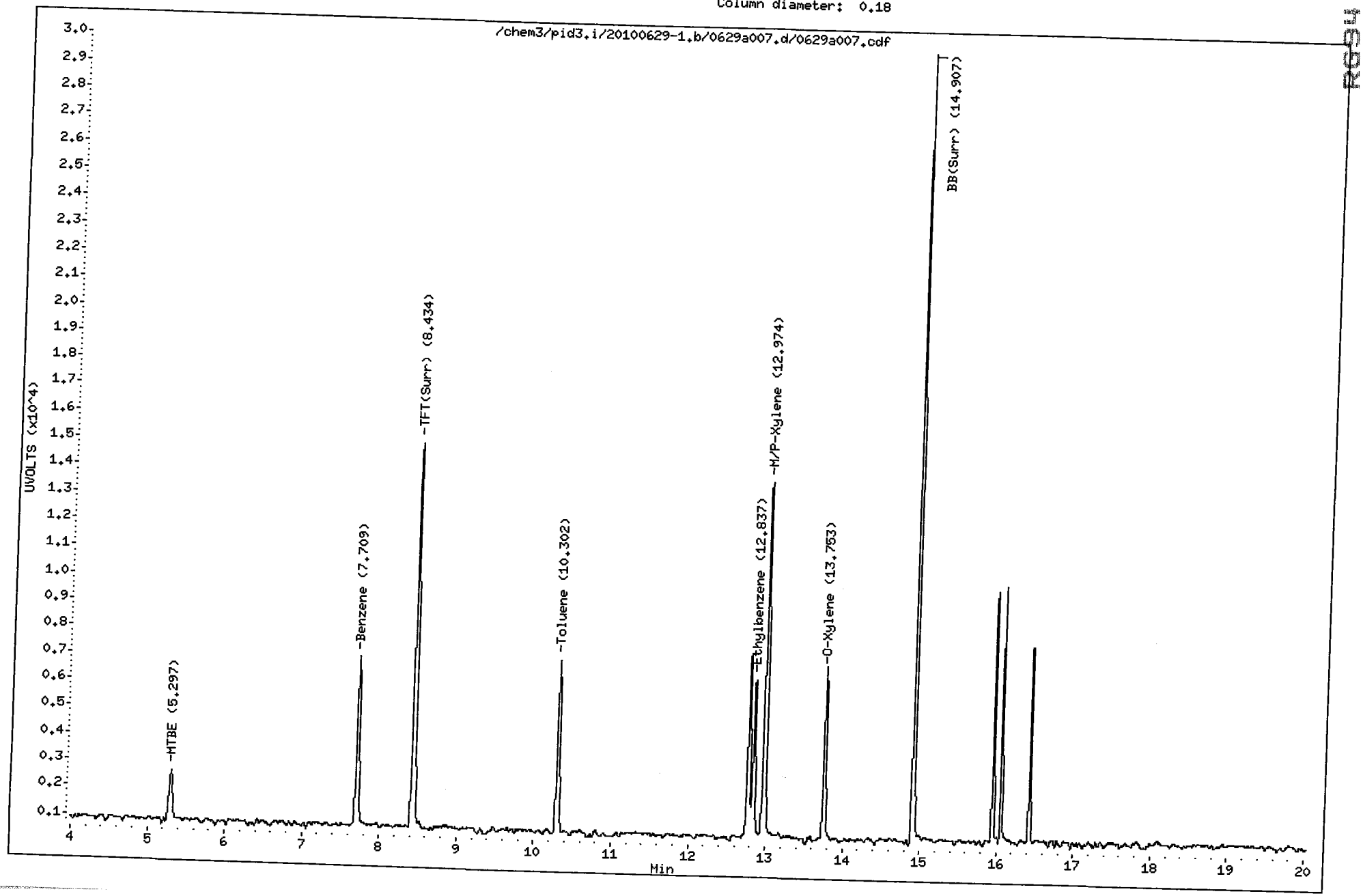


Data File: /chem3/pid3.i/20100629-1.b/0629a007.d
Date : 29-JUN-2010 08:48
Client ID:
Sample Info: BETX 5

Instrument: pid3.i

Column phase: RTX 502-2 PID

Operator: MH
Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a008.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a008.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX 25
Client ID:
Injection Date: 29-JUN-2010 09:12
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.000	7036	82252	97.8	TFT(Surr)
14.911	-0.001	4118	35649	95.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	554289	0.797
8015B 2MP-TMB	(4.93 to 15.54)	539482	0.398
AK101 nC6-nC10	(5.50 to 14.63)	505710	0.468
NWTPHG Tol-Nap	(10.21 to 18.23)	562868	0.760

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.436	-0.001	21401	97.4	TFT(Surr)
14.908	-0.002	44020	96.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.712	-0.001	31003	23.45	Benzene
10.304	-0.004	31867	24.14	Toluene
12.840	-0.007	29632	23.85	Ethylbenzene
12.977	-0.012	65022	48.28	M/P-Xylene
13.755	-0.007	31715	24.68	O-Xylene
5.300	-0.001	8658	24.33	MTBE

A Indicates Peak Area was used for quantitation instead of Height
J Indicates peak peak was manually integrated

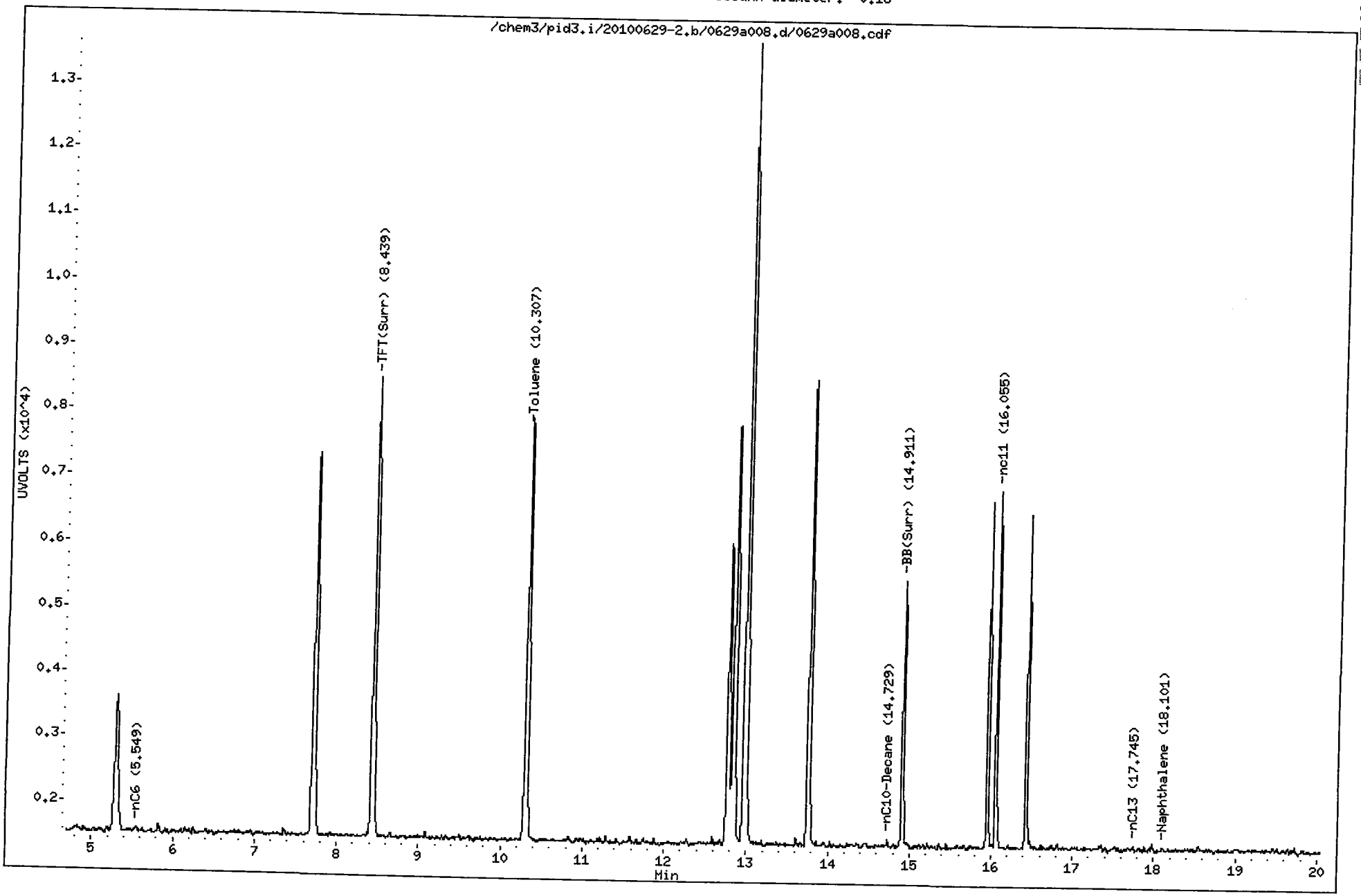
Data File: /chem3/pid3.i/20100629-2.b/0629a008.d
Date : 29-JUN-2010 09:12
Client ID:
Sample Info: BETX 25

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 FID

RGSL-01437



Data File: /chem3/pid3.i/20100629-1.b/0629a008.d

Date : 29-JUN-2010 09:12

Client ID:

Sample Info: BETX 25

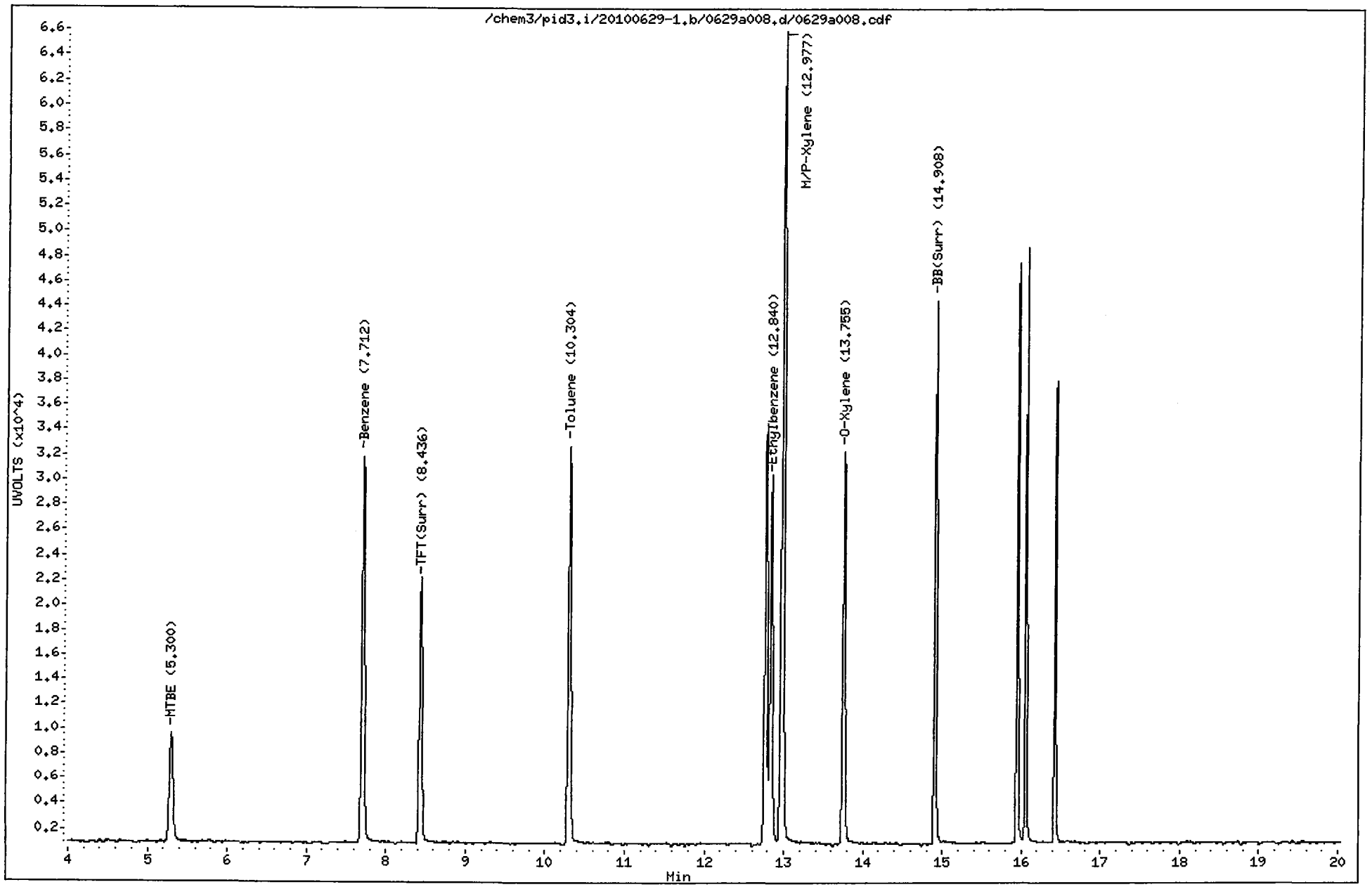
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG91-01138



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a009.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a009.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX 50
Client ID:
Injection Date: 29-JUN-2010 09:37
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.438	-0.001	9374	110805	130.2	TFT(Surr)
14.911	-0.001	5595	46087	129.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	1045595	1.504
8015B 2MP-TMB	(4.93 to 15.54)	1041320	0.768
AK101 nC6-nC10	(5.50 to 14.63)	978534	0.906
NWTPHG Tol-Nap	(10.21 to 18.23)	1053990	1.423

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.436	-0.001	28902	131.5	TFT(Surr)
14.909	-0.001	60660	133.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.711	-0.002	62822	47.52	Benzene
10.305	-0.003	63750	48.30	Toluene
12.841	-0.006	59507	47.89	Ethylbenzene
12.979	-0.010	130181	96.67	M/P-Xylene
13.757	-0.005	64099	49.89	O-Xylene
5.298	-0.003	17422	48.97	MTBE

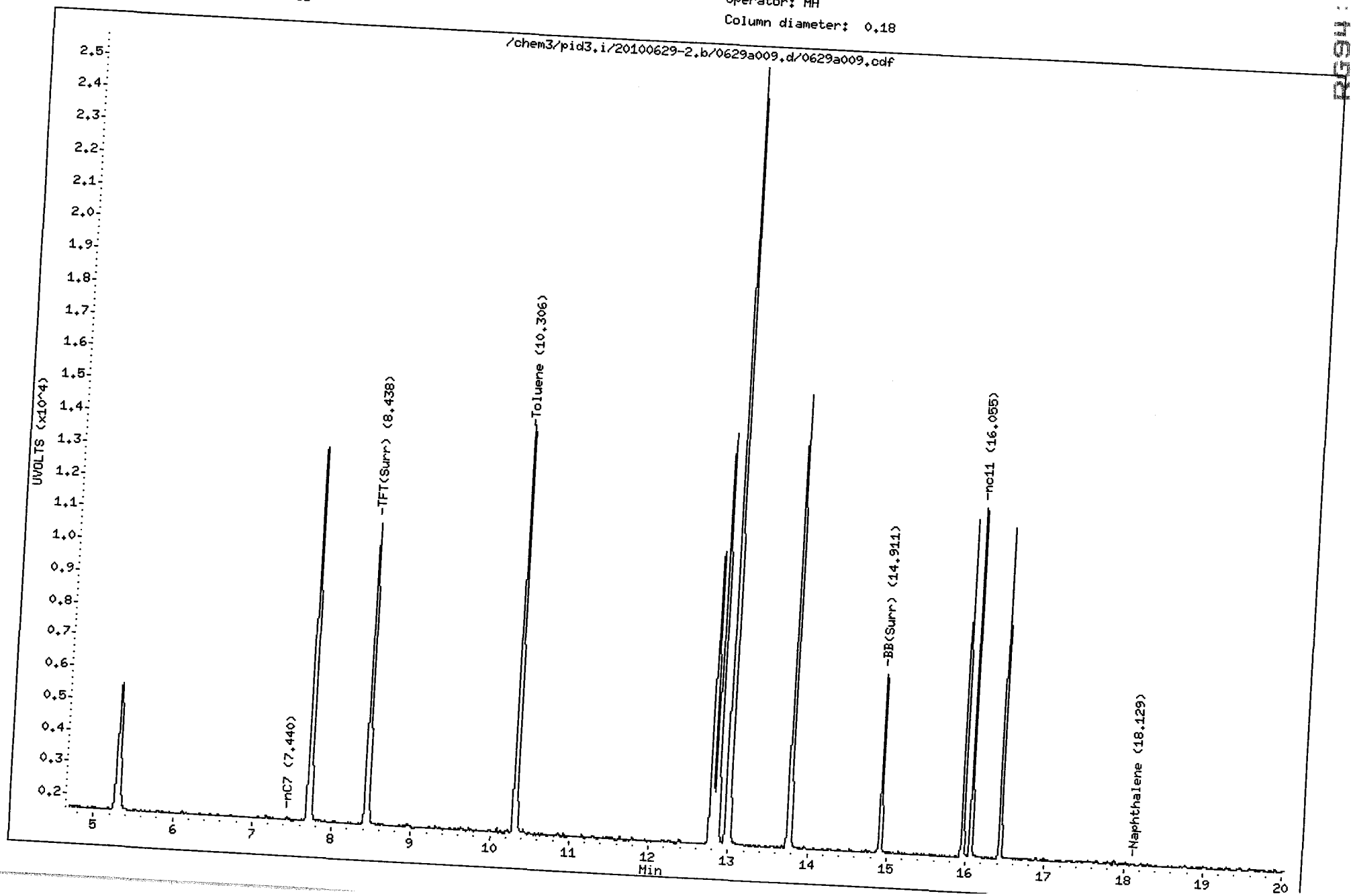
A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100629-2.b/0629a009.d
Date : 29-JUN-2010 09:37
Client ID:
Sample Info: BETX 50

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 FID

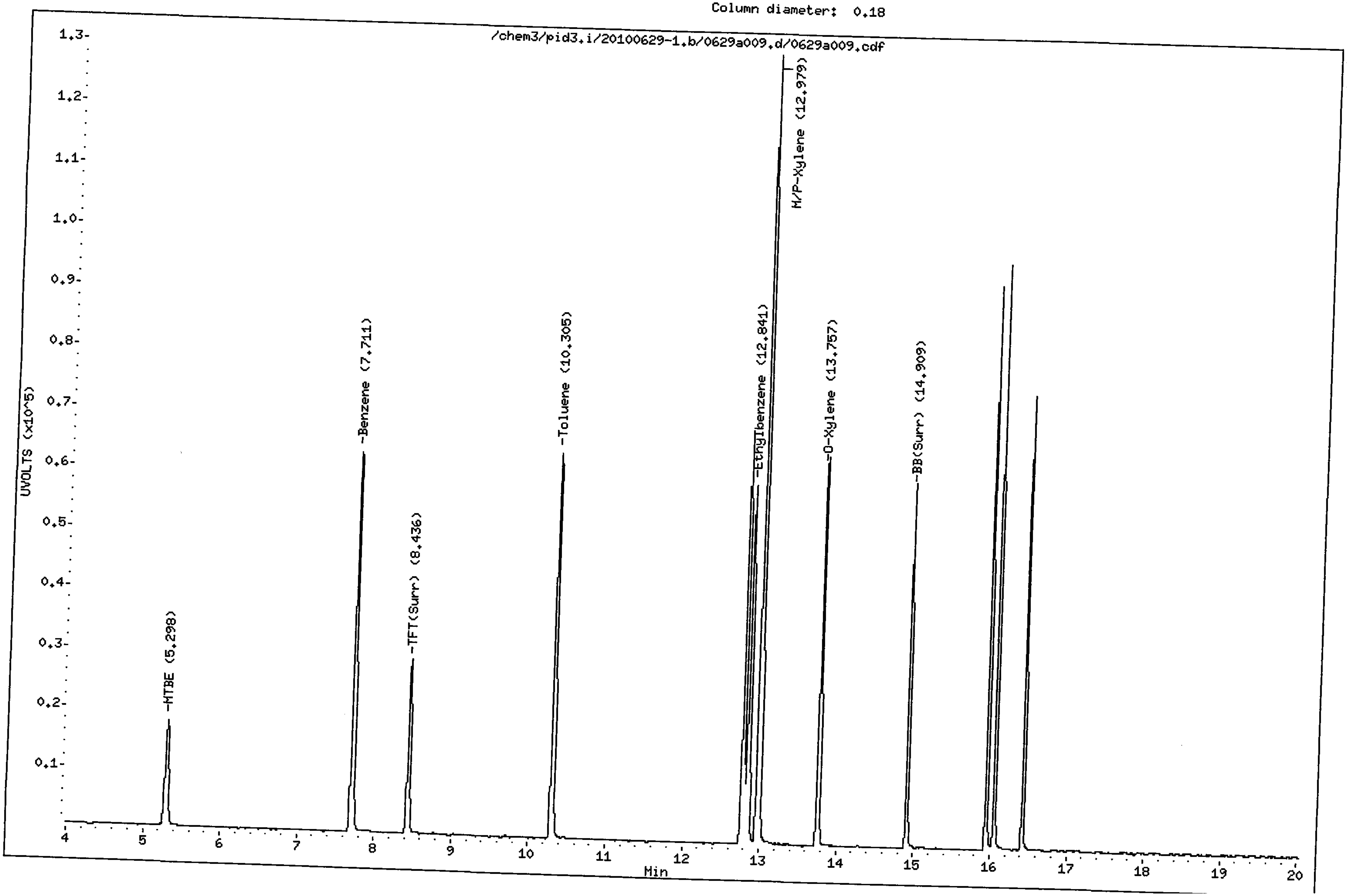


Data File: /chem3/pid3.i/20100629-1.b/0629a009.d
Date : 29-JUN-2010 09:37
Client ID:
Sample Info: BETX 50

Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a010.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a010.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX 100
Client ID:
Injection Date: 29-JUN-2010 10:01
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.001	12289	144775	170.7	TFT(Surr)
14.912	0.001	7394	58577	171.7	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	2011481	2.893
8015B 2MP-TMB	(4.93 to 15.54)	1982095	1.462
AK101 nC6-nC10	(5.50 to 14.63)	1860428	1.722
NWTPHG Tol-Nap	(10.21 to 18.23)	2014004	2.719

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.438	0.001	37664	171.3	TFT(Surr)
14.910	0.001	80033	175.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.714	0.001	122057	92.32	Benzene
10.307	-0.001	124686	94.47	Toluene
12.844	-0.003	115194	92.70	Ethylbenzene
12.984	-0.006	249433	185.23	M/P-Xylene
13.759	-0.003	125630	97.78	O-Xylene
5.302	0.001	33414	93.91	MTBE

Indicates Peak Area was used for quantitation instead of Height
Indicates peak peak was manually integrated

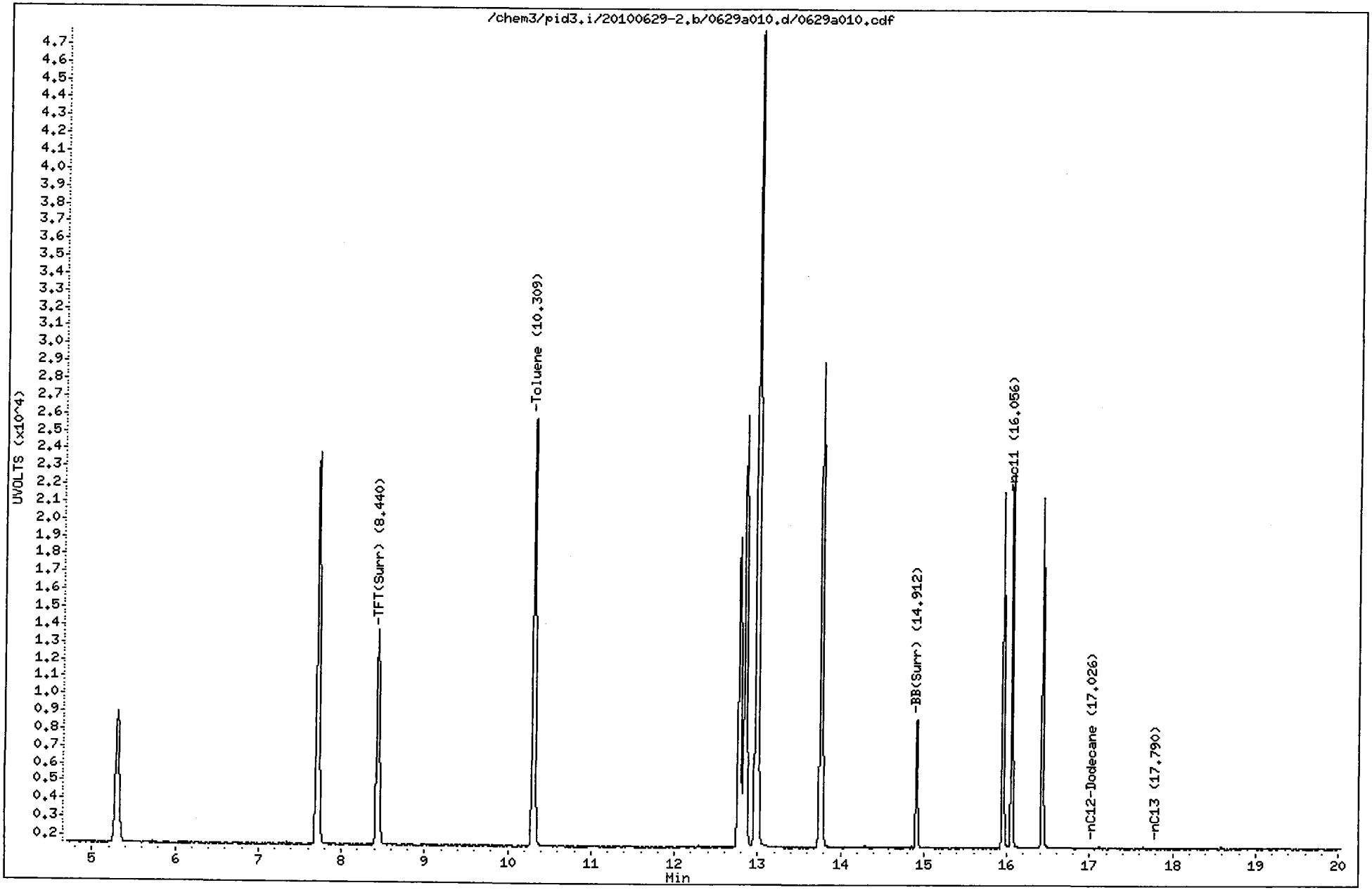
Data File: /chem3/pid3.i/20100629-2.b/0629a010.d
Date : 29-JUN-2010 10:01
Client ID:
Sample Info: BETX 100

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

RG91-01113



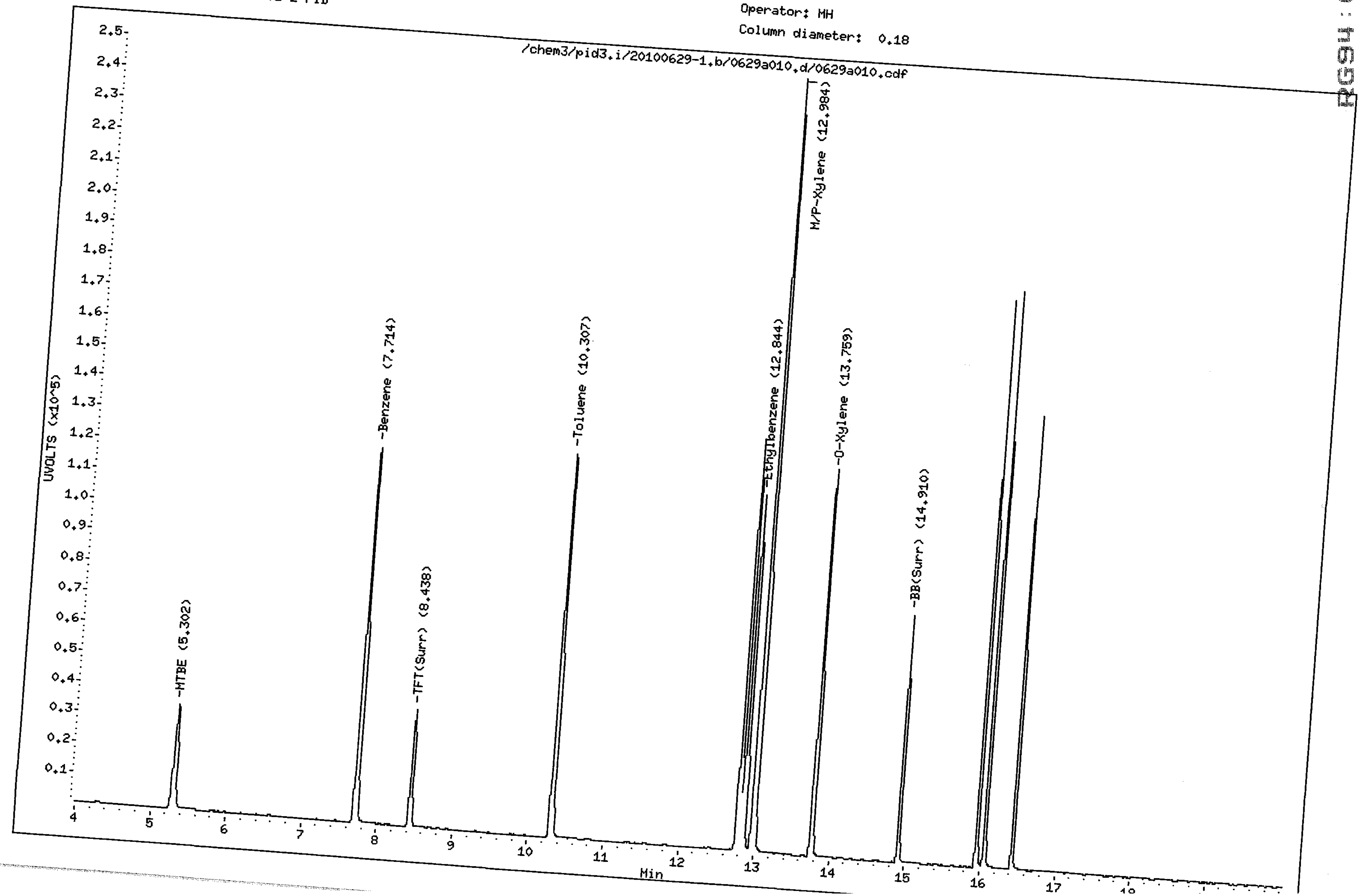
Data File: /chem3/pid3.i/20100629-1.b/0629a010.d
Date : 29-JUN-2010 10:01
Client ID:
Sample Info: BETX 100

Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a011.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a011.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX 200
Client ID:
Injection Date: 29-JUN-2010 10:26
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.000	14060	165027	195.3	TFT(Surr)
14.911	0.000	8446	67516	196.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	4138650	5.951
8015B 2MP-TMB	(4.93 to 15.54)	4088735	3.015
AK101 nC6-nC10	(5.50 to 14.63)	3833098	3.547
NWTPHG Tol-Nap	(10.21 to 18.23)	4139793	5.588

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.437	0.000	43804	199.3	TFT(Surr)
14.910	0.000	92698	203.3	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.713	0.000	250899	189.77	Benzene
10.308	0.000	258768	196.06	Toluene
12.847	0.000	236635	190.43	Ethylbenzene
12.989	0.000	507143	376.60	M/P-Xylene
13.762	0.000	261479	203.52	O-Xylene
5.301	0.000	68624	192.87	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

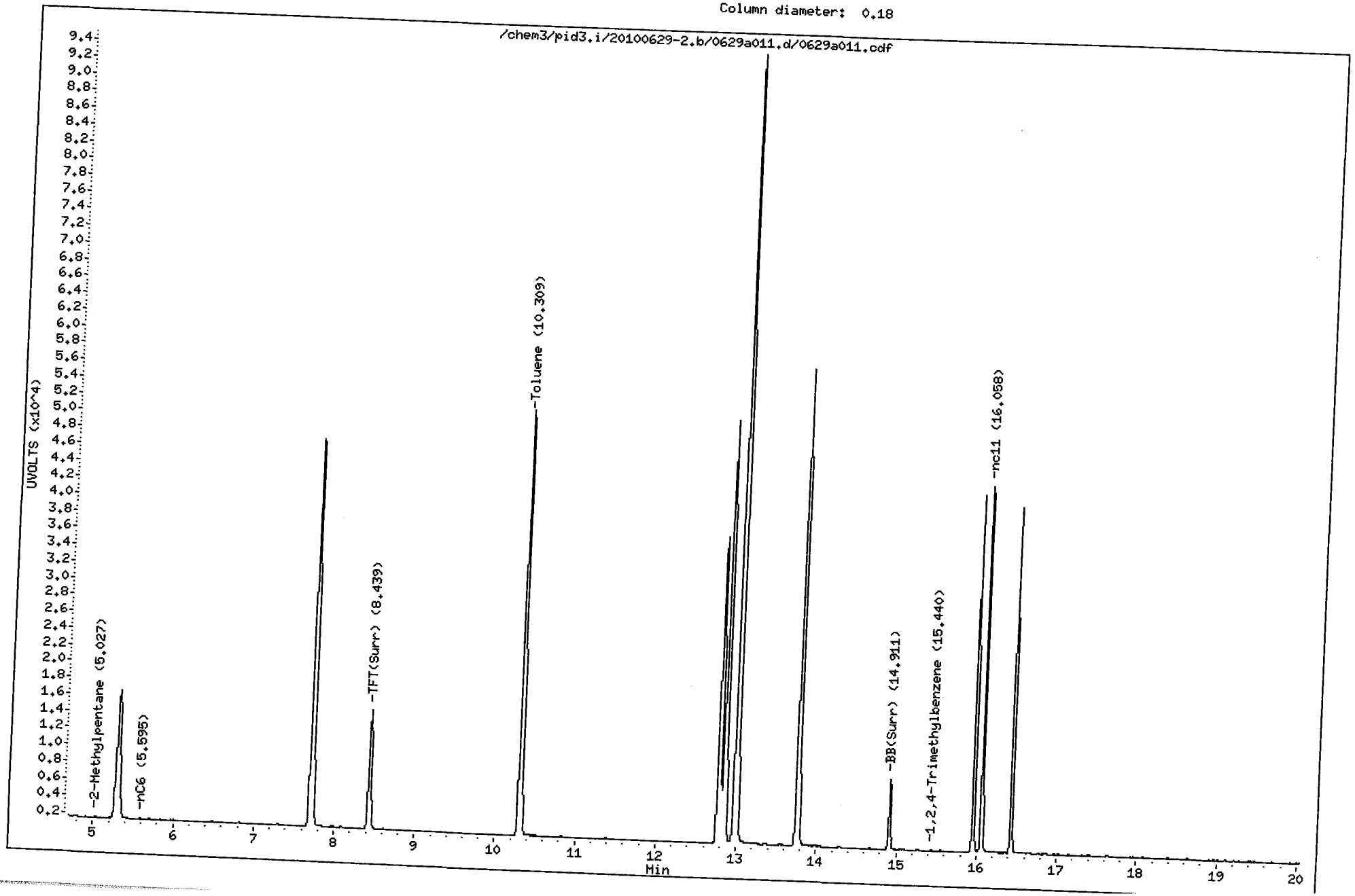
Data File: /chem3/pid3.i/20100629-2.b/0629a011.d
Date : 29-JUN-2010 10:26
Client ID:
Sample Info: BETX 200

Instrument: pid3.i

Column phase: RTX 502-2 FID

Operator: MH
Column diameter: 0.18

RG91:01446



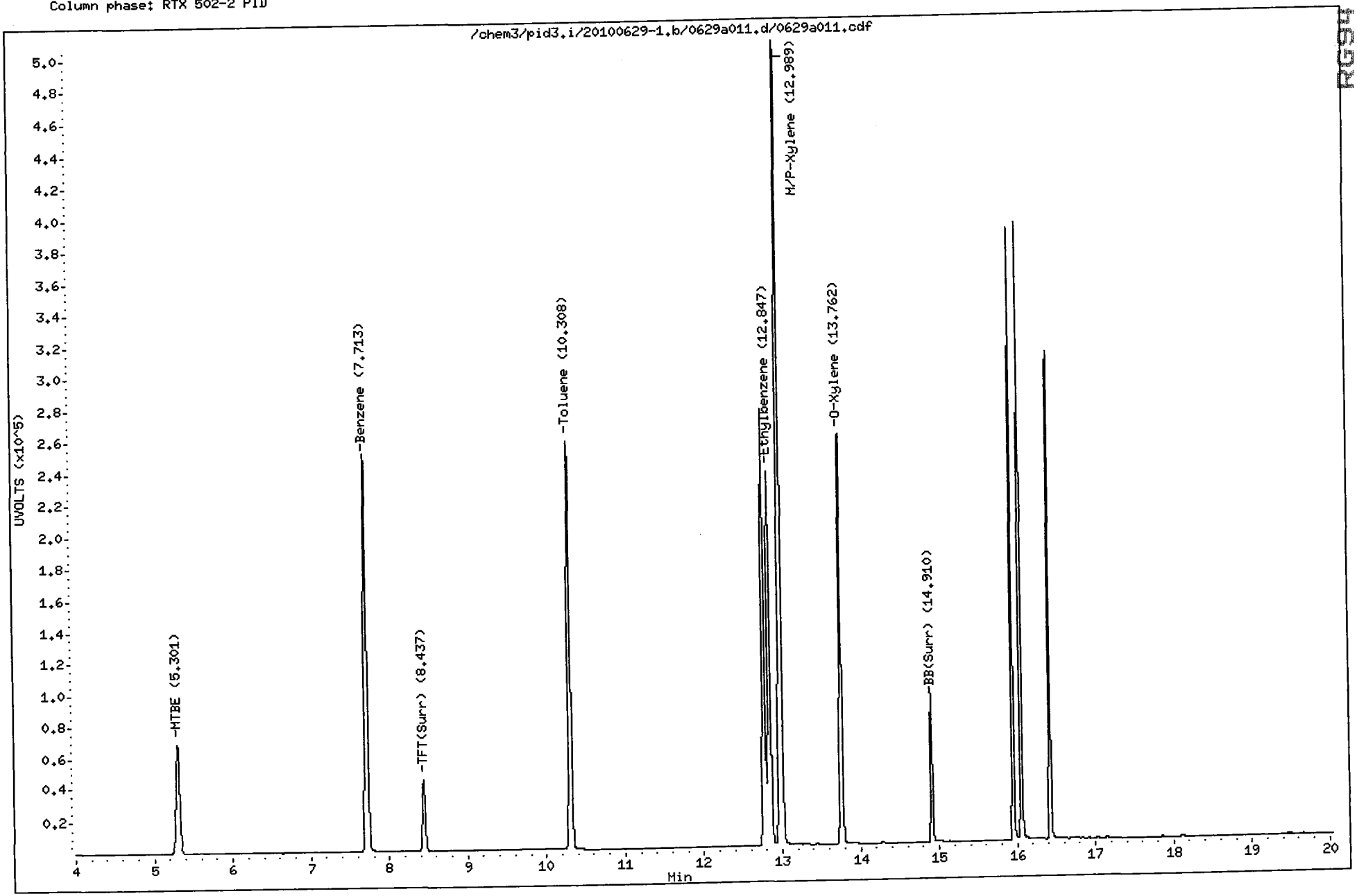
Data File: /chem3/pid3.i/20100629-1.b/0629a011.d
Date : 29-JUN-2010 10:26
Client ID:
Sample Info: BETX 200

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 PID

RGSH 01417



Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100629-2.b/0629a012.d
Data file 2: /chem3/pid3.i/20100629-1.b/0629a012.d
Method: /chem3/pid3.i/20100629-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 02-FEB-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BETX ICV
Client ID:
Injection Date: 29-JUN-2010 10:50
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.000	6906	81786	95.9	TFT(Surr)
14.911	0.000	4128	34996	95.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		Total Area*	Amount
WAGas Tol-C12	(10.21 to 17.13)	577743	0.831
8015B 2MP-TMB	(4.93 to 15.54)	579812	0.428
AK101 nC6-nC10	(5.50 to 14.63)	541769	0.501
NWTPHG Tol-Nap	(10.21 to 18.23)	580332	0.783

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.437	0.000	21036	95.7	TFT(Surr)
14.909	0.000	44825	98.3	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.712	-0.001	34297	25.94	Benzene
10.305	-0.002	33530	25.40	Toluene
12.841	-0.005	30482	24.53	Ethylbenzene
12.979	-0.010	67184	49.89	M/P-Xylene
13.757	-0.005	32583	25.36	O-Xylene
5.300	-0.001	9537	26.80	MTBE

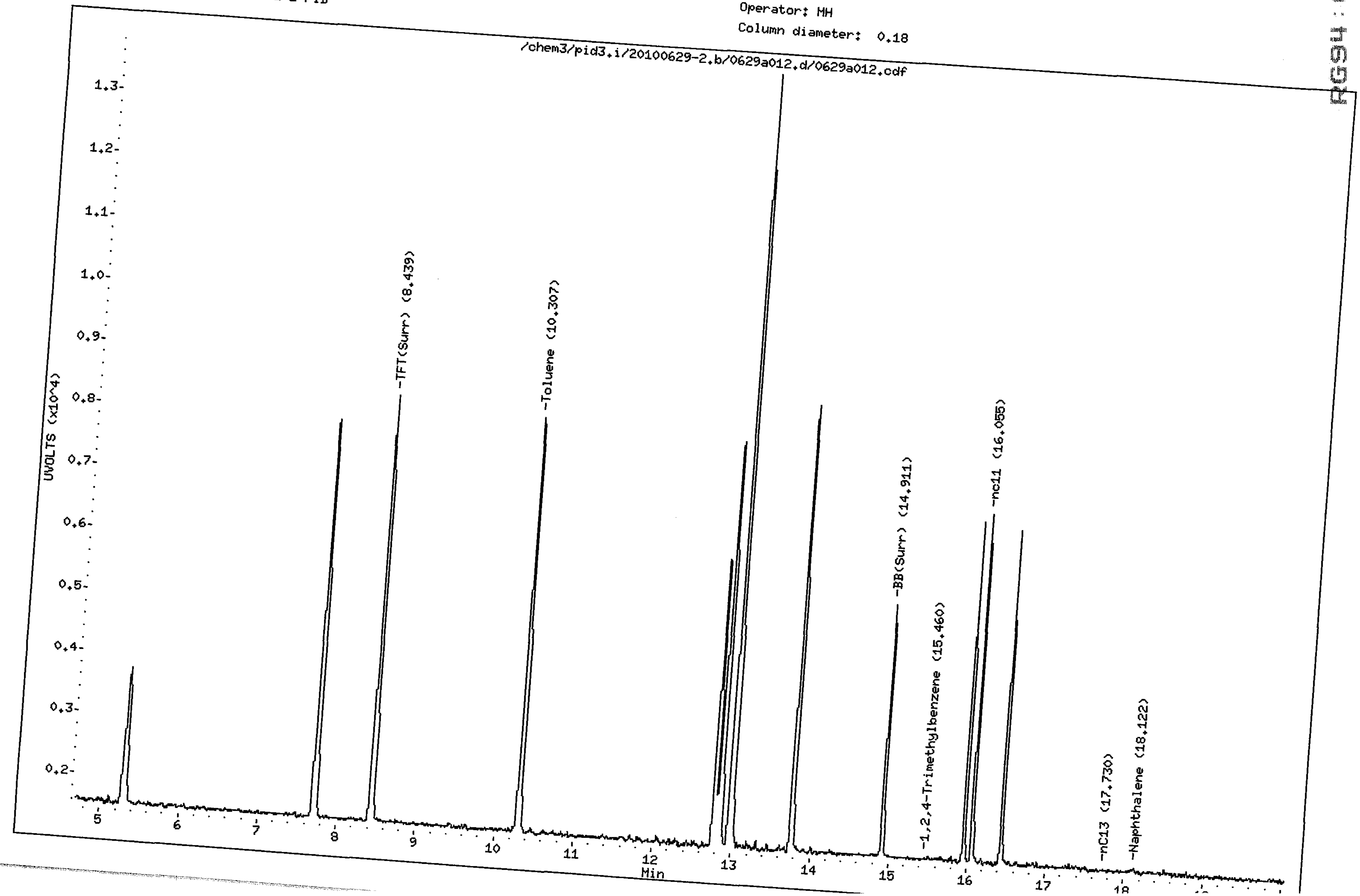
A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100629-2.b/0629a012.d
Date : 29-JUN-2010 10:50
Client ID:
Sample Info: BETX ICV

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18



Data File: /chem3/pid3.i/20100629-1.b/0629a012.d
Date : 29-JUN-2010 10:50
Client ID:
Sample Info: BETX ICV

Instrument: pid3.i

Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 PID

PG91:01450

/chem3/pid3.i/20100629-1.b/0629a012.d/0629a012.cdf

UVOLTS (x10^4)

-MTBE (5.300)
-Benzene (7.712)
-TFT(Surr) (8.437)
-Toluene (10.305)
-Ethylbenzene (12.841)
M/P-Xylene (12.979)
-O-Xylene (13.757)
BB(Surr) (14.909)

Min

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid3.i/20100629-2.b/FID.m
Batch File: /chem3/pid3.i/20100629-2.b
Inst ID: pid3.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0629a005	0629a006	0629a007	0629a008	0629a009	0629a010	0629a011
INJ.DATE:	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010
INJ.TIME:	07:59	08:24	08:48	09:12	09:37	10:01	10:26

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	5.027	5.027	4.957-5.097	5.027	0.000
	18 WAGAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.097	1.027-1.167	+++++	+++++
	19 8015B	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.891	0.821-0.961	+++++	+++++
	20 AK101	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.930-1.070	+++++	+++++
	21 NWGAS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.930-1.070	+++++	+++++
	2 nC6	+++++	+++++	+++++	5.549	+++++	+++++	5.595	5.595	5.525-5.665	5.572	0.032
	3 nC7	+++++	7.470	+++++	+++++	7.440	+++++	+++++	7.440	7.370-7.510	7.455	0.021
$	4 TFT(Surr)	8.418	8.430	8.435	8.439	8.438	8.440	8.439	8.418	8.348-8.488	8.434	0.008
	5 nC8	+++++	9.879	+++++	+++++	+++++	+++++	+++++	9.879	9.809-9.949	9.879	0.000
	6 Toluene	+++++	10.297	10.304	10.307	10.306	10.309	10.309	10.309	10.239-10.379	10.305	0.005
	7 nC9	+++++	12.387	+++++	+++++	+++++	+++++	+++++	12.387	12.317-12.457	12.387	0.000
	8 nC10-Decane	14.697	+++++	+++++	14.729	+++++	+++++	+++++	14.697	14.627-14.767	14.713	0.023
$	9 BB(Surr)	14.897	14.906	14.908	14.911	14.911	14.912	14.911	14.897	14.827-14.967	14.908	0.005
	10 1,2,4-Trimethylbenzene	15.452	+++++	15.441	+++++	+++++	+++++	15.440	15.452	15.382-15.522	15.444	0.007
	11 nc11	16.042	16.052	16.053	16.055	16.055	16.056	16.058	16.042	15.972-16.112	16.053	0.005
	12 nC12-Dodecane	+++++	17.023	17.017	+++++	+++++	17.026	+++++	17.026	16.956-17.096	17.022	0.005
	13 nC13	17.827	17.760	+++++	17.745	+++++	17.790	+++++	17.827	17.757-17.897	17.781	0.036

Reviewer 1 MH Date: 7/10/10
Reviewer 2 VO Date: 7.10.10

RG94:01451

Report Date : 10-Jul-2010 08:08

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem3/pid3.i/20100629-1.b/PIDB.m
Batch File: /chem3/pid3.i/20100629-1.b
Inst ID: pid3.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	0629a005	0629a006	0629a007	0629a008	0629a009	0629a010	0629a011
INJ.DATE:	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010	29-JUN-2010
INJ.TIME:	07:59	08:24	08:48	09:12	09:37	10:01	10:26

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	1 MTBE	5.283	5.300	5.297	5.300	5.298	5.302	5.301	5.283	5.213-5.353	5.297	0.006
$	3 TFT(Surr)	8.417	8.429	8.434	8.436	8.436	8.438	8.437	8.417	8.347-8.487	8.433	0.008
	2 Benzene	7.694	7.706	7.709	7.712	7.711	7.714	7.713	7.694	7.624-7.764	7.708	0.007
	4 Toluene	10.287	10.297	10.302	10.304	10.305	10.307	10.308	10.287	10.217-10.357	10.301	0.007
	15 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.835	12.765-12.905	+++++	+++++
	5 Ethylbenzene	12.817	12.832	12.837	12.840	12.841	12.844	12.847	12.817	12.747-12.887	12.837	0.010
	6 M/P-Xylene	12.955	12.969	12.974	12.977	12.979	12.984	12.989	12.955	12.885-13.025	12.975	0.011
	7 O-Xylene	13.737	13.750	13.753	13.755	13.757	13.759	13.762	13.737	13.687-13.787	13.753	0.008
$	8 BB(Surr)	14.893	14.904	14.907	14.908	14.909	14.910	14.910	14.893	14.823-14.963	14.906	0.006
	13 1,3,5 Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.421	12.351-12.491	+++++	+++++
	14 1,2,4 Trimethyl benzen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.059	12.989-13.129	+++++	+++++
	16 1,3 Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.034	15.964-16.104	+++++	+++++
	17 1,4 Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.140	16.070-16.210	+++++	+++++
	18 1,2 Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.513	16.443-16.583	+++++	+++++

Reviewer 1 MH Date: 7/10/10
Reviewer 2 VB Date: 7-10-10

RG94:01452

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem3/pid3.i/20100629-1.b

ARI Job No.: BETX Method: PIDB.m Instrument: pid3.i Date: 29-JUN-2010

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0759	0629a005.d	BETX .25		1	Toluene, Ethylbenzene, O-Xylene, MTBE, TFT(Surr), BB(Surr),
0824	0629a006.d	BETX .5		1	Toluene, O-Xylene, MTBE,
0848	0629a007.d	BETX 5		1	NO MANUAL INTEGRATION
0912	0629a008.d	BETX 25		1	NO MANUAL INTEGRATION
0937	0629a009.d	BETX 50		1	NO MANUAL INTEGRATION
1001	0629a010.d	BETX 100		1	NO MANUAL INTEGRATION
1026	0629a011.d	BETX 200		1	NO MANUAL INTEGRATION

RG914:91453

TPHG/BETX Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: RG94

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: RG94 Client ID: Floyd/Snider

ARI SOP: ~~404S~~(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): NWTPH6/BETX

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 ~~PID-3~~ FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 6/29/10 BETX 7/27/10 60S Analysis Start Date: 8/10/10

pH ≤ 2.0	YES / NO (NA)	Method Blank In Control?	~~YES~~ / NO
BFB Tune Meets Criteria?	YES / NO (NA)	LCS / LCSD Recovery In Control?	~~YES~~ / NO
Internal Standard Meets Criteria?	YES / NO (NA)	Surrogate Recovery In Control?	~~YES~~ / NO
ICal acceptable?	~~YES~~ / NO	CCal acceptable?	~~YES~~ / NO
Q flag applied?	YES / NO (NA)	Q flag applied?	YES / NO / ~~NA~~
Manual Integrations for ICal?	~~YES~~ / NO	Manual Integrations for Samples?	Yes / ~~NO~~
Special Analysis Criteria Met?	YES / NO (NA)		

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 8/13/10

Reviewer: [signature] **Date:** 8/13/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: RG94 Client ID: Floyd/Snider

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): NWTPHG/BETX

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 6/29/10 BETX 7/28/10 G-S Analysis Start Date: 8/10/10

pH ≤ 2.0 YES / NO / NA

Method Blank In Control? YES / NO

BFB Tune Meets Criteria? YES / NO / NA

LCS / LCSD Recovery In Control? YES / NO

Internal Standard Meets Criteria? YES / NO / NA

Surrogate Recovery In Control? YES / NO

ICal acceptable? YES / NO

CCal acceptable? YES / NO

Q flag applied? YES / NO / NA

Q flag applied? YES / NO / NA

Manual Integrations for ICal? YES / NO

Manual Integrations for Samples? Yes / NO

Special Analysis Criteria Met? YES / NO / NA

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Additional Details on Reverse: Yes / No

Analyst: [signature] **Date:** 8/13/10

Reviewer: [signature] **Date:** 8/16/10

Analytical Resources Inc.: Organics Instrument Log

PID-3 HP 5890 Series II - Serial No.: 2728A-13336

Date: 8/10/10 Analysis: NWTPHG/BETX Analyst: MH

GC Program: BETX Column No: 832213 Column Type: RTX502-2

Instrument Tune (.U or .CT.): — EM Voltage: —

Calibration File: — Curve Date: 6/29/10 BETX 7/28/10 GCS

IS/SS	Ical/Ccal	LCS/ICV
VW648-3	VW635-7	VW647-2
	VW644 3	
	VW647-2	

	Time	Filename	LabID	ClientID	Vial#	pH	DF
1	0557	0810a001.d	RINSE				1
2	0621	0810a002.d	RT+BCAL 1				1
3	0646	0810a003.d	GCAL 1				1
4	0710	0810a004.d	LCS0810				1
5	0735	0810a005.d	LCSD0810				1
6	0759	0810a006.d	MB0810				1
7	0852	0810a007.d	RG94L	MW12-TB-080210			1
8	0916	0810a008.d	RG94K	MW12-ER-080210			1
9	0941	0810a009.d	RG94A	MW14-15-16.5-080210		0.00	
10	1006	0810a010.d	RG94B	MW14-22.5-24-080210		0.00	
11	1030	0810a011.d	RG94C	MW13-10-11.5-080210		0.00	
12	1054	0810a012.d	RG94D	MW13-14-14.5-080210		0.00	
13	1119	0810a013.d	RINSE				1
14	1143	0810a014.d	BCAL 2				1
15	1208	0810a015.d	GCAL 2				1
16	1233	0810a016.d	RG94E	MW13-18.5-19.5-0802		0.00	
17	1257	0810a017.d	RG94F	MW13-18.5-19.5-0802		0.00	
18	1322	0810a018.d	RG94G	MW12-5.5-7.5-080210		0.00	
19	1346	0810a019.d	RG94H	MW12-8-9.5-080210		0.00	
20	1411	0810a020.d	RG94HMS	MW12-8-9.5-0802 MS		0.00	
21	1436	0810a021.d	RG94HMSD	MW12-8-9.5-0802 MSD		0.00	
22	1500	0810a022.d	RG94I	MW12-10-11.5-080210		0.00	
23	1525	0810a023.d	RG94J	MW12-17.5-19-080210		0.00	
24	1550	0810a024.d	RH42A	EW-7			1
25	1614	0810a025.d	RH42B	EW-4 MID			1
26	1639	0810a026.d	RINSE				1
27	1704	0810a027.d	BCAL 3				1
28	1728	0810a028.d	GCAL 3				1
29	1753	0810a029.d	RH40A	MW-1			1
30	1818	0810a030.d	RH40B	MW-2			1
31	1842	0810a031.d	RH53A	IW-1			1
32	1906	0810a032.d	RH53B	EW-1			1
33	1931	0810a033.d	RH53C	IW-5			1
34	1955	0810a034.d	RH53D	MW-5S			1
35	2020	0810a035.d	RINSE				1
36	2045	0810a036.d	GCAL 4				1

MH
8/13/10

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

MH 8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a002.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a002.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RT+BCAL 1
Client ID:
Injection Date: 10-AUG-2010 06:21
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.409	0.000	6973	81986	96.9	TFT(Surr)
14.887	0.000	4190	33460	97.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1018237	1.230
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1251600	0.752
AK101 nC6-nC10	(5.41 to 14.53)	1131784	878231	0.776
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	1073676	1.217

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.408	0.000	19535	88.9	TFT(Surr)
14.886	0.000	41444	90.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.689	0.000	32397	24.50	Benzene
10.272	0.000	31879	24.15	Toluene
12.805	0.000	28878	23.24	Ethylbenzene
12.942	0.000	63507	47.16	M/P-Xylene
13.724	0.000	30203	23.51	O-Xylene
5.292	0.000	9151	25.72	MTBE

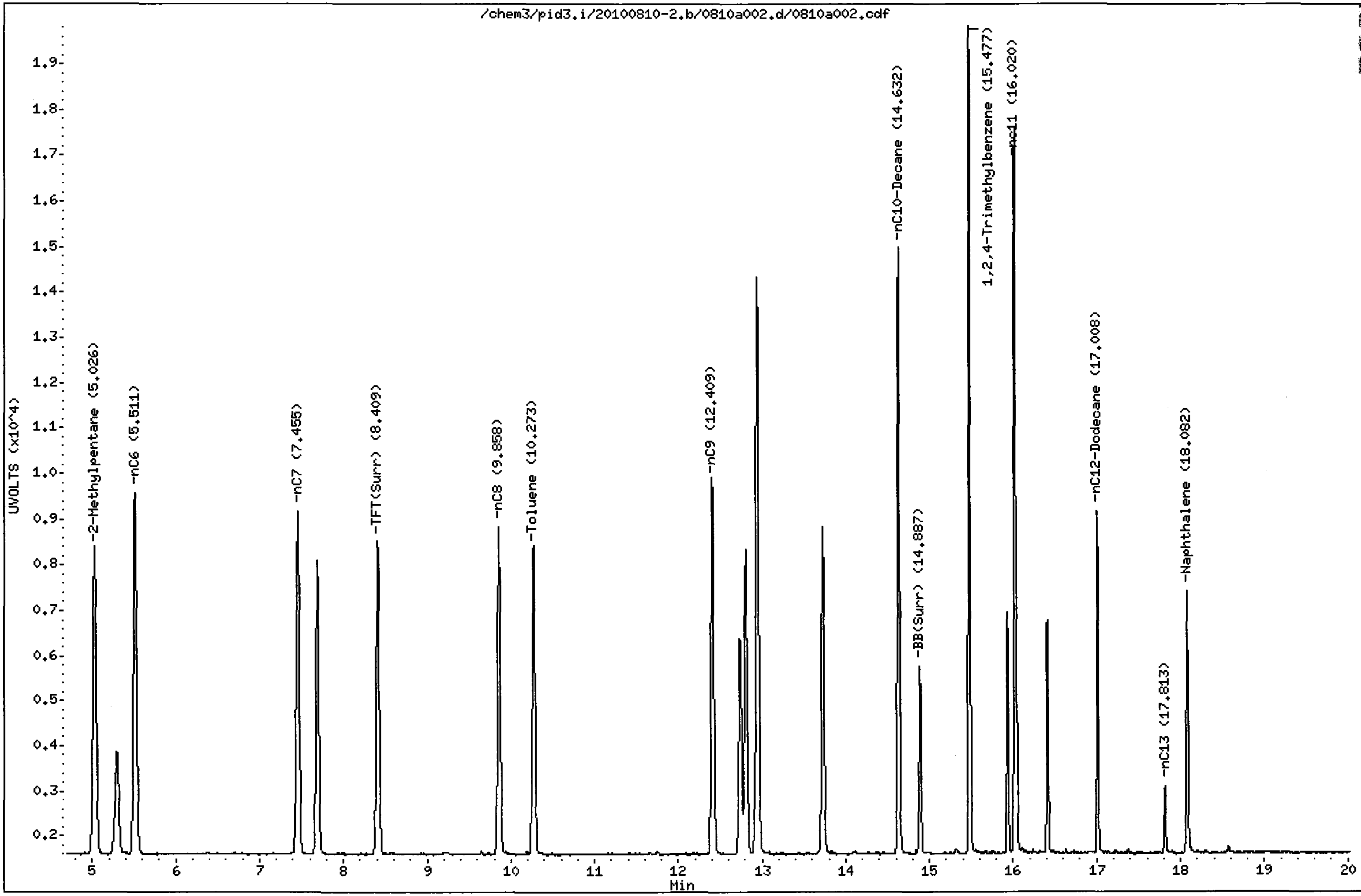
A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a002.d
Date : 10-AUG-2010 06:21
Client ID:
Sample Info: RT+BCAL 1

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-1.b/0810a002.d

Date : 10-AUG-2010 06:21

Client ID:

Sample Info: RT+BCAL 1

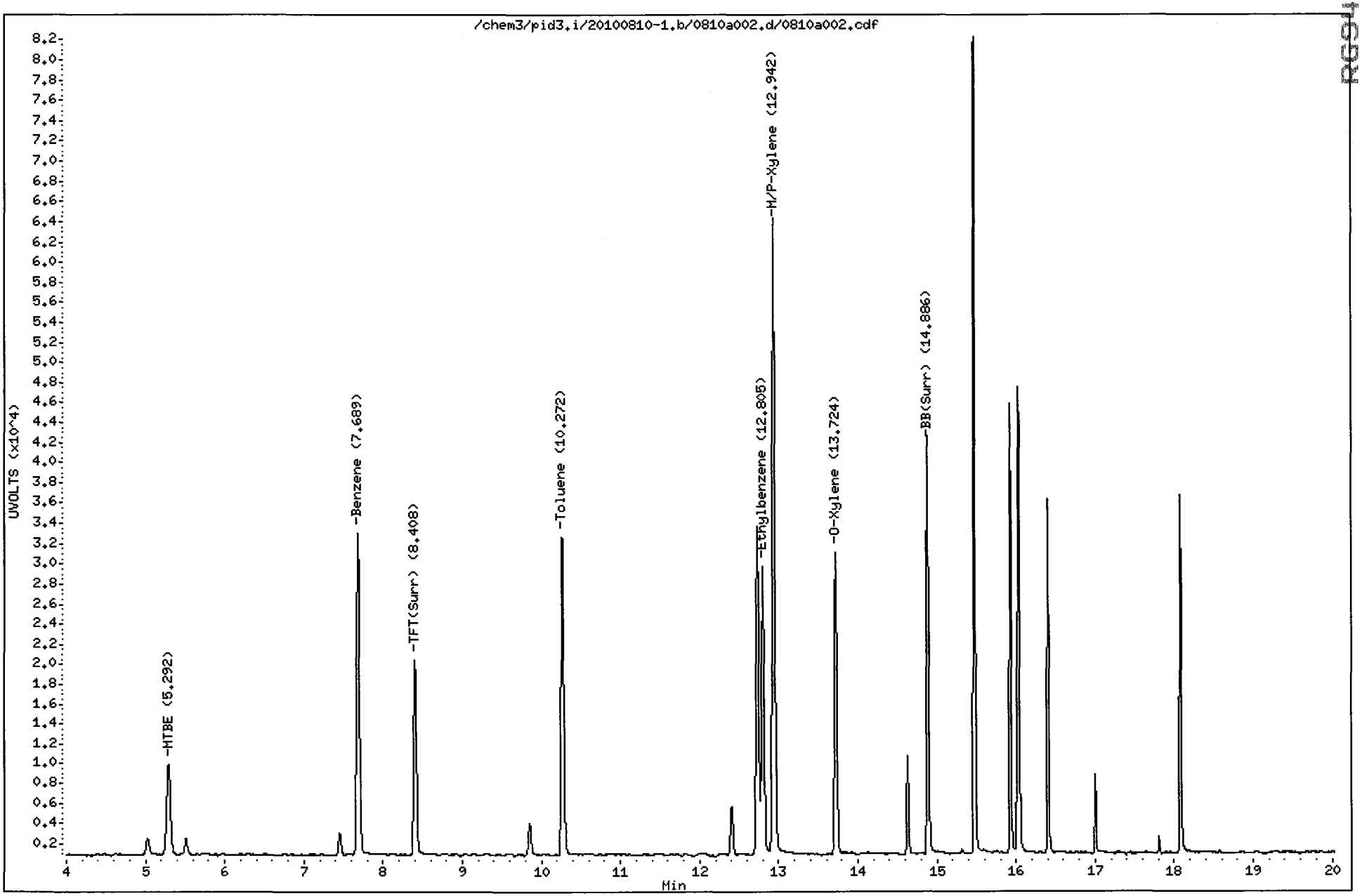
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RSSI: 01169



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a003.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a003.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GCAL 1
Client ID:
Injection Date: 10-AUG-2010 06:46
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.427	0.019	7295	87627	101.4	TFT(Surr)
14.902	0.014	4363	35749	101.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1980291	2.392 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	3925132	2.359 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	2640180	2.333 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2109313	2.391 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.425	0.017	20248	92.1	TFT(Surr)
14.899	0.013	42366	92.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.705	0.016	6873	5.20	Benzene
10.291	0.020	90382	68.48	Toluene
12.824	0.020	25873	20.82	Ethylbenzene
12.966	0.023	101189	75.14	M/P-Xylene
13.742	0.018	41245	32.10	O-Xylene
5.302	0.011	80100	225.12	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a003.d

Date : 10-AUG-2010 06:46

Client ID:

Sample Info: GCAL 1

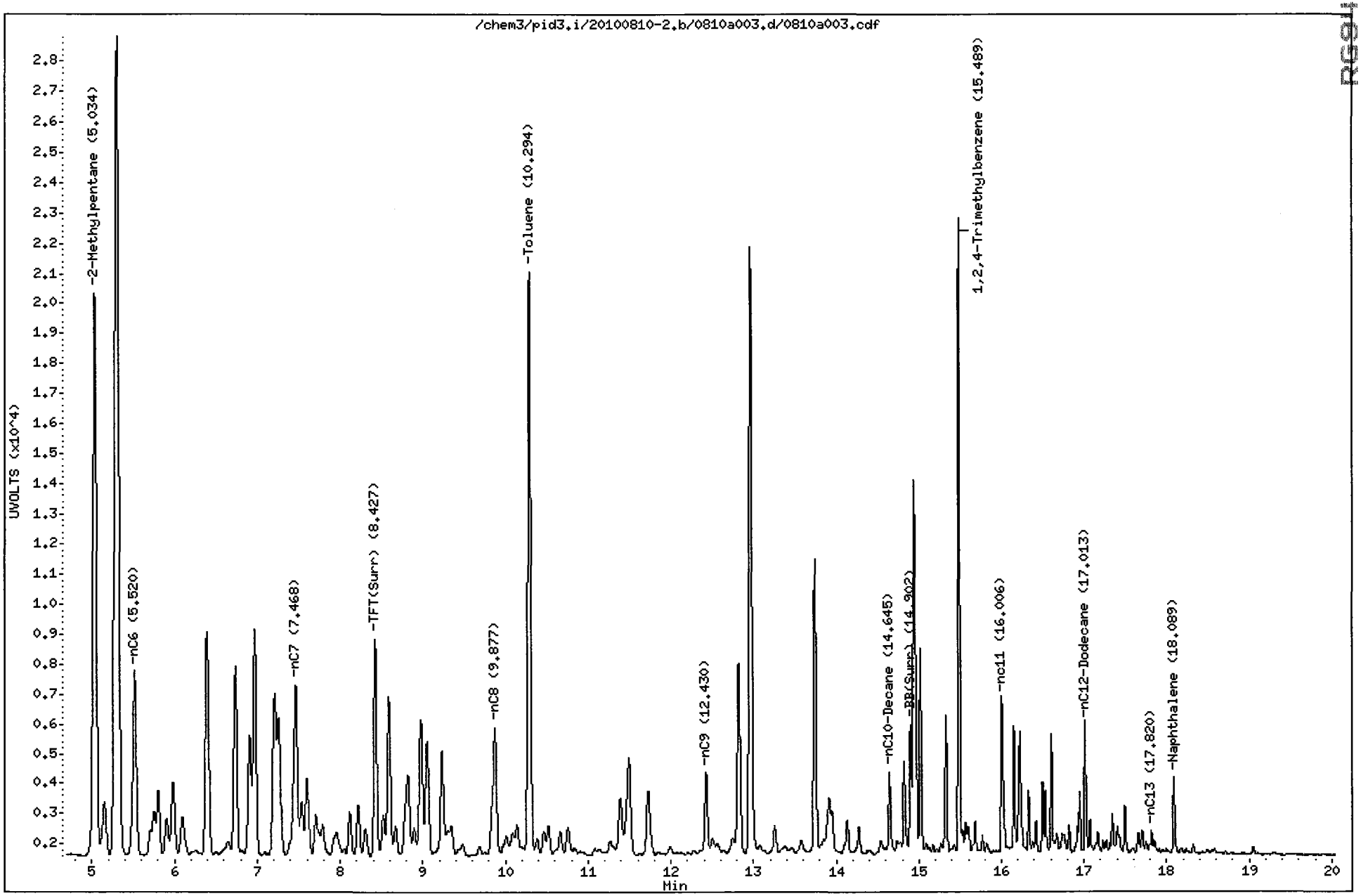
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RSQL-01162



Data File: /chem3/pid3.i/20100810-1.b/0810a003.d

Date : 10-AUG-2010 06:46

Client ID:

Sample Info: GCAL 1

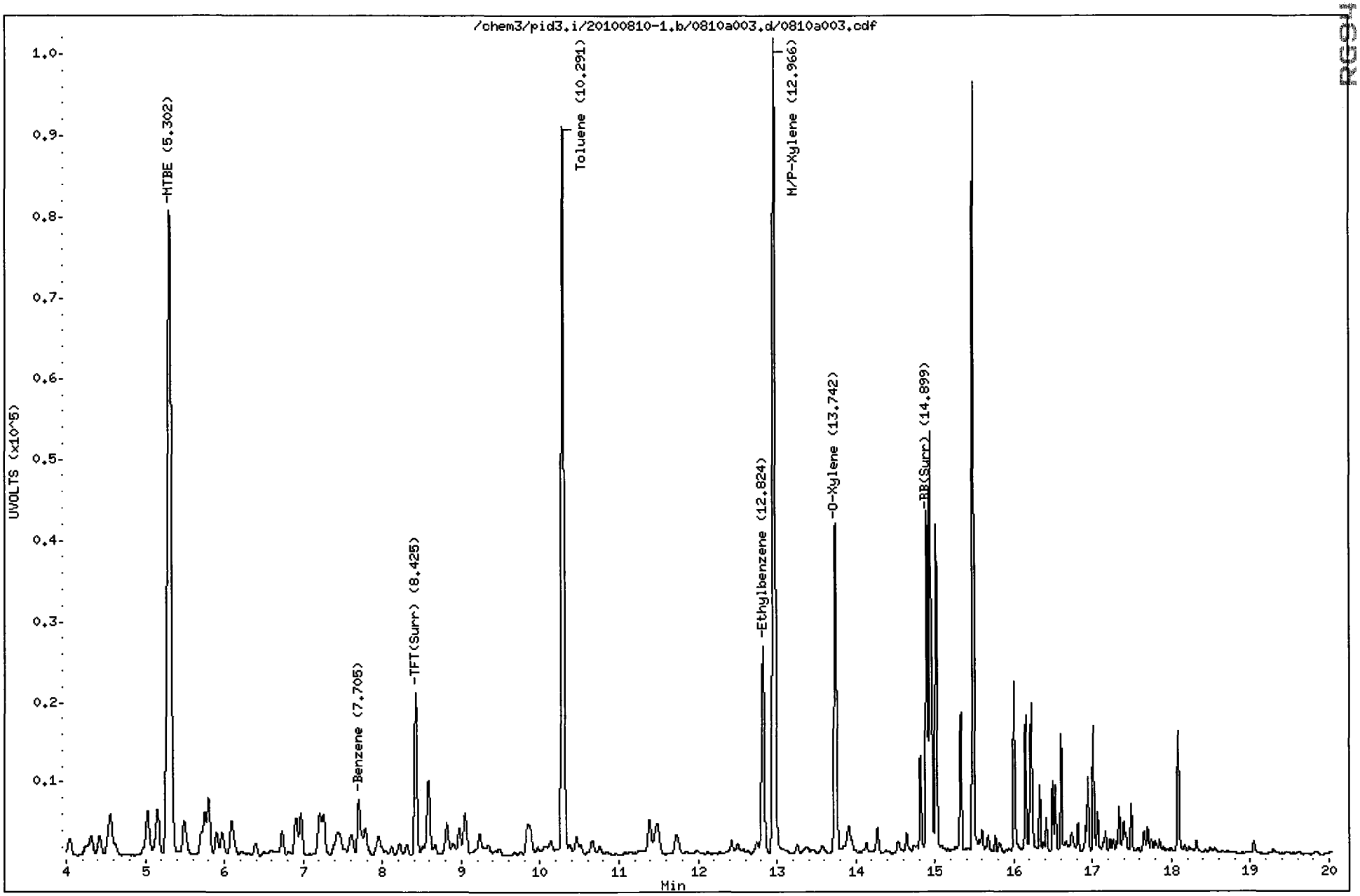
Column phase: RTX 502-2 PID

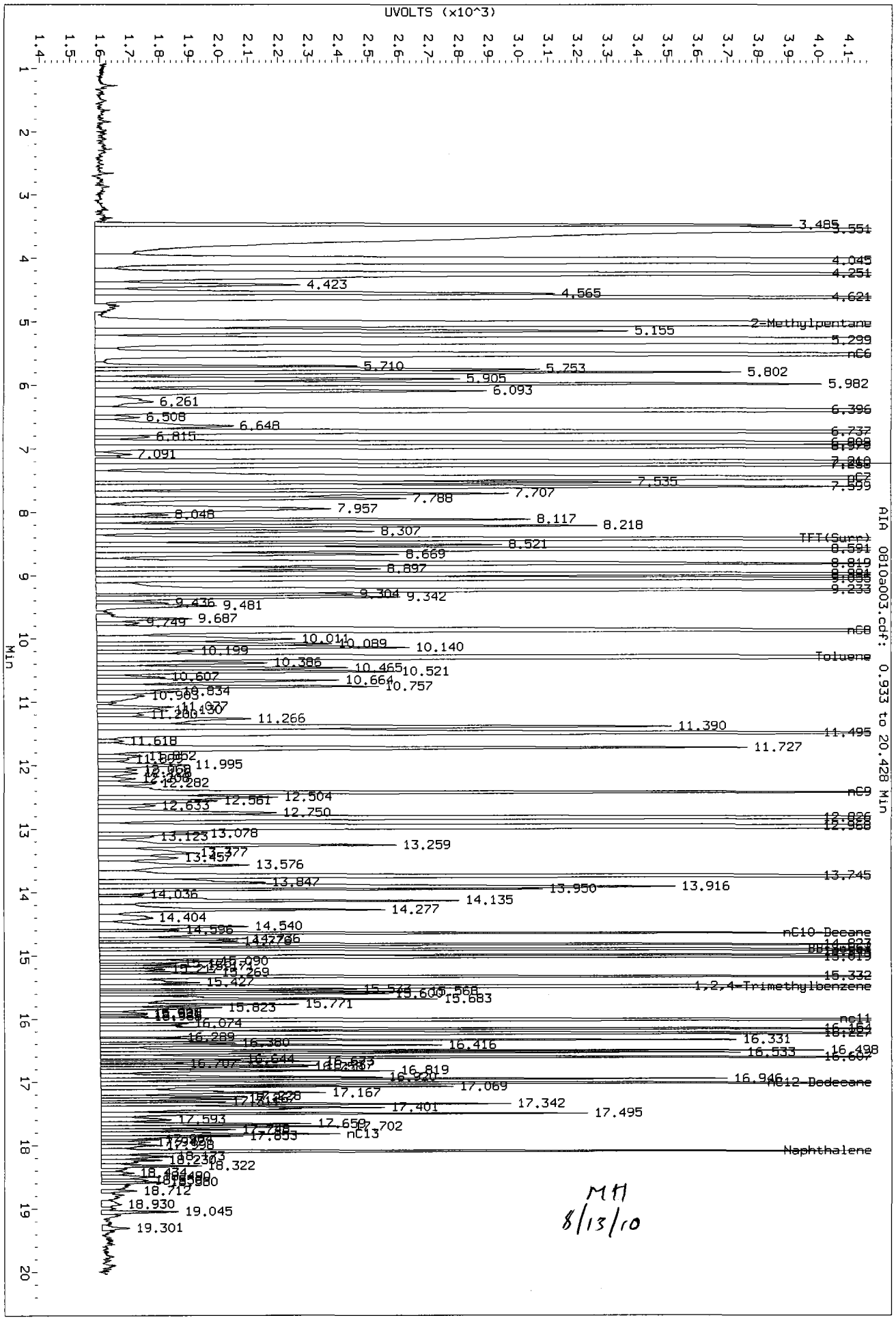
Instrument: pid3.i

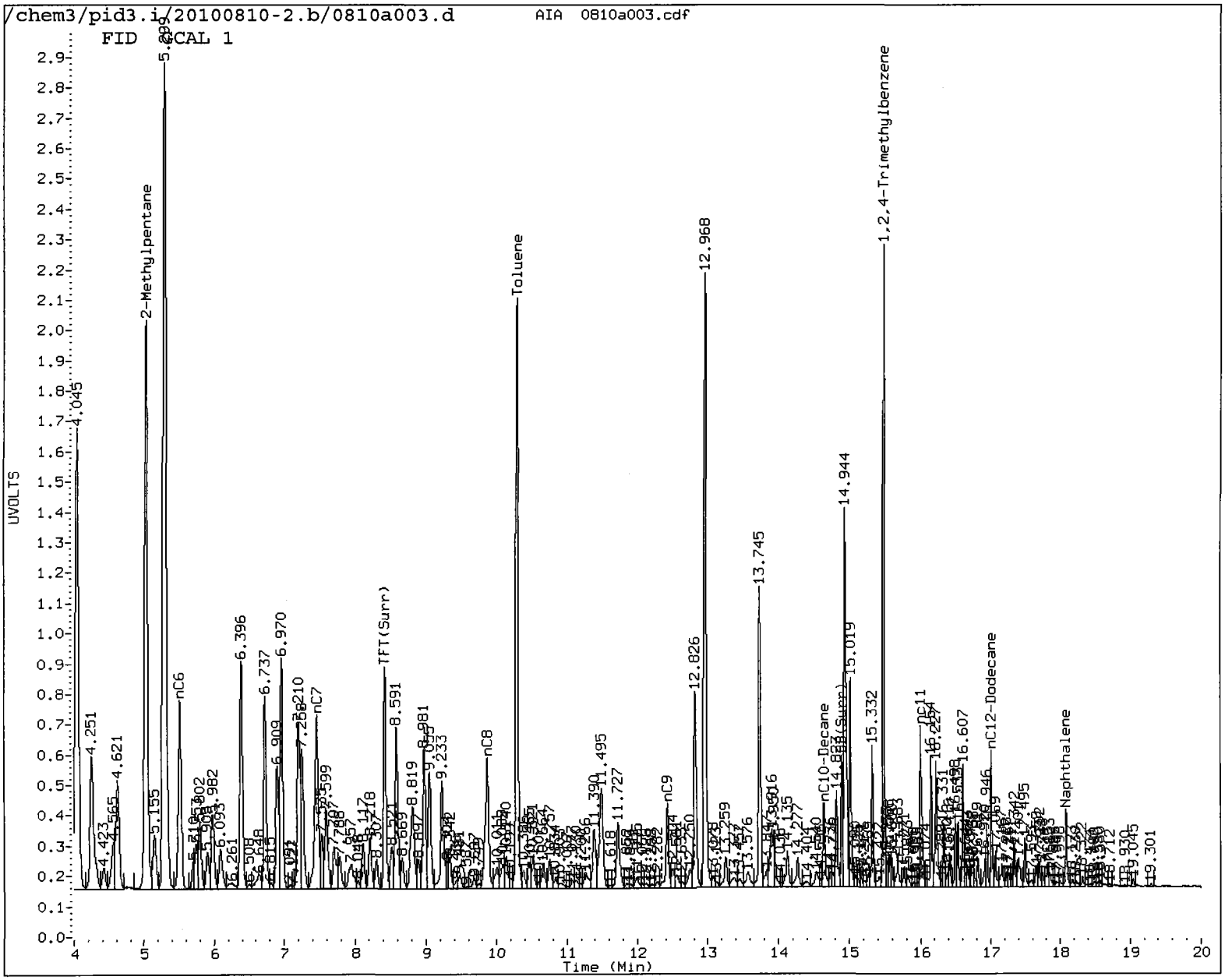
Operator: MH

Column diameter: 0.18

RGH: 01463




UVOLTS (x10^3)
Min
AIA 0810a003.cdf: 0.933 to 20.428 Min
Data File: /chem3/pid3.i/20100810-2.b/0810a003.d/0810a003.cdf
Injection Date: 10-AUG-2010 06:46
Instrument: pid3.i
Client Sample ID:
3.485
4.423
4.565
2=Methylpentane
5.155
5.710
5.753
5.802
5.905
5.982
6.093
6.261
6.508
6.648
6.815
7.091
7.535
7.707
7.788
7.957
8.048
8.117
8.218
8.307
8.521
8.669
8.897
9.304
9.342
9.436
9.481
9.687
10.011
10.089
10.140
10.199
10.386
10.465
10.521
10.607
10.664
10.757
10.903
10.834
11.200
11.266
11.390
11.618
11.727
11.995
12.282
12.504
12.561
12.633
12.750
13.078
13.123
13.259
13.377
13.457
13.576
13.847
13.916
13.950
14.036
14.135
14.277
14.404
14.540
14.596
nC10-Decane
15.090
15.269
15.332
15.427
1,2,4-Trimethylbenzene
15.544
15.600
15.568
15.683
15.771
15.823
16.074
16.289
16.331
16.380
16.416
16.533
16.498
16.644
16.819
16.946
nC12-Dodecane
17.069
17.167
17.342
17.401
17.495
17.593
17.650
17.702
17.853
nC13
18.322
18.712
18.930
19.045
19.301
Naphthalene
TFT(Surr)
nC8
Toluene
nC9
nC11
MH
8/13/10



MANUAL INTEGRATION

X. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

8/31

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a004.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a004.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: LCS0810
Client ID:
Injection Date: 10-AUG-2010 07:10
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.434	0.025	7046	83780	97.9	TFT(Surr)
14.907	0.020	4303	34819	99.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	763152	0.922 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1524102	0.916 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1023929	0.905 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	816869	0.926 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.432	0.025	19852	90.3	TFT(Surr)
14.905	0.019	42275	92.7	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.711	0.022	2727	2.06	Benzene
10.299	0.028	35401	26.82	Toluene
12.834	0.029	10233	8.24	Ethylbenzene
12.974	0.032	39829	29.58	M/P-Xylene
13.750	0.026	16414	12.78	O-Xylene
5.303	0.011	33013	92.78	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a004.d

Date : 10-AUG-2010 07:10

Client ID:

Sample Info: LCS0810

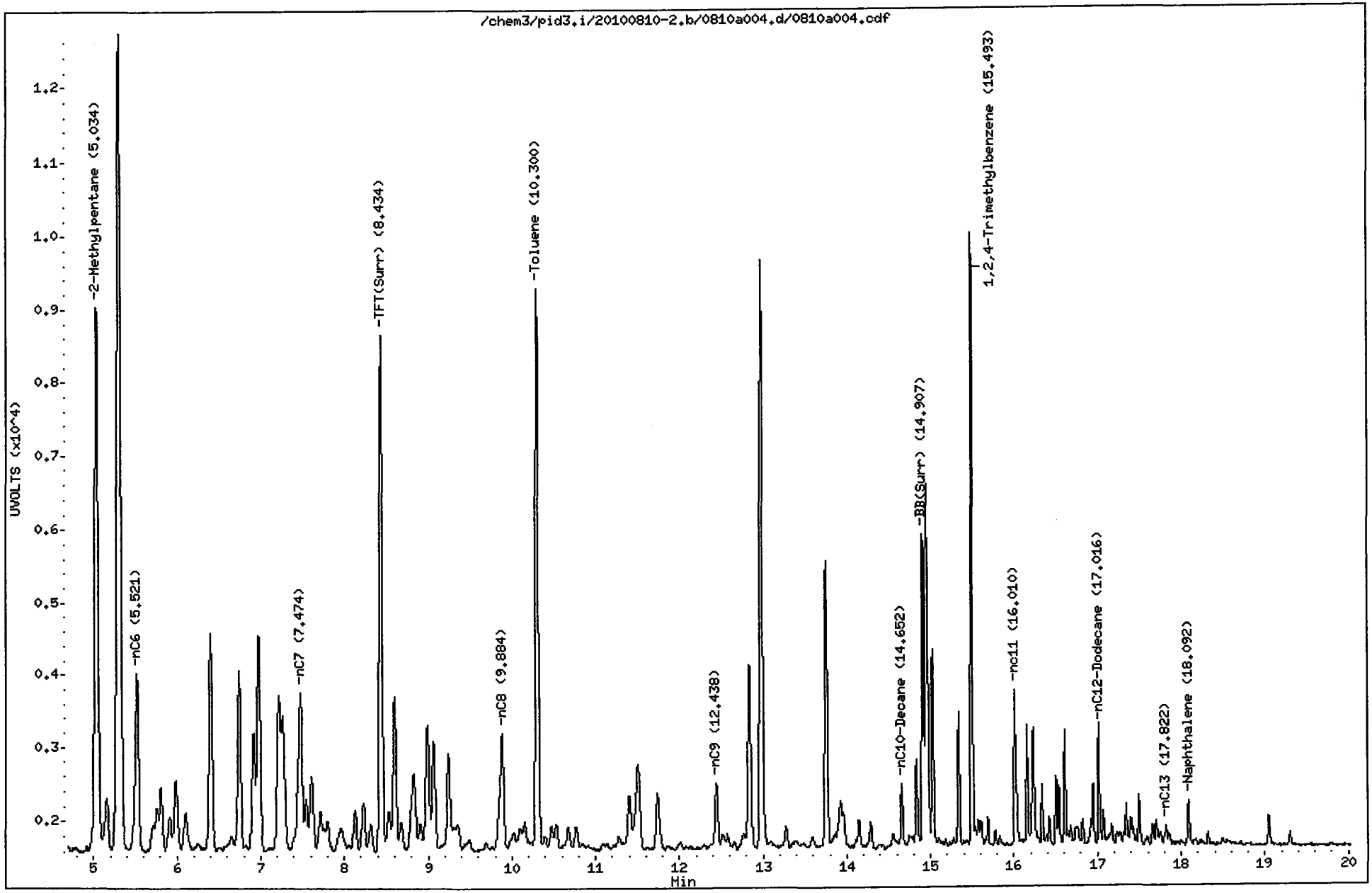
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RGSH:01167

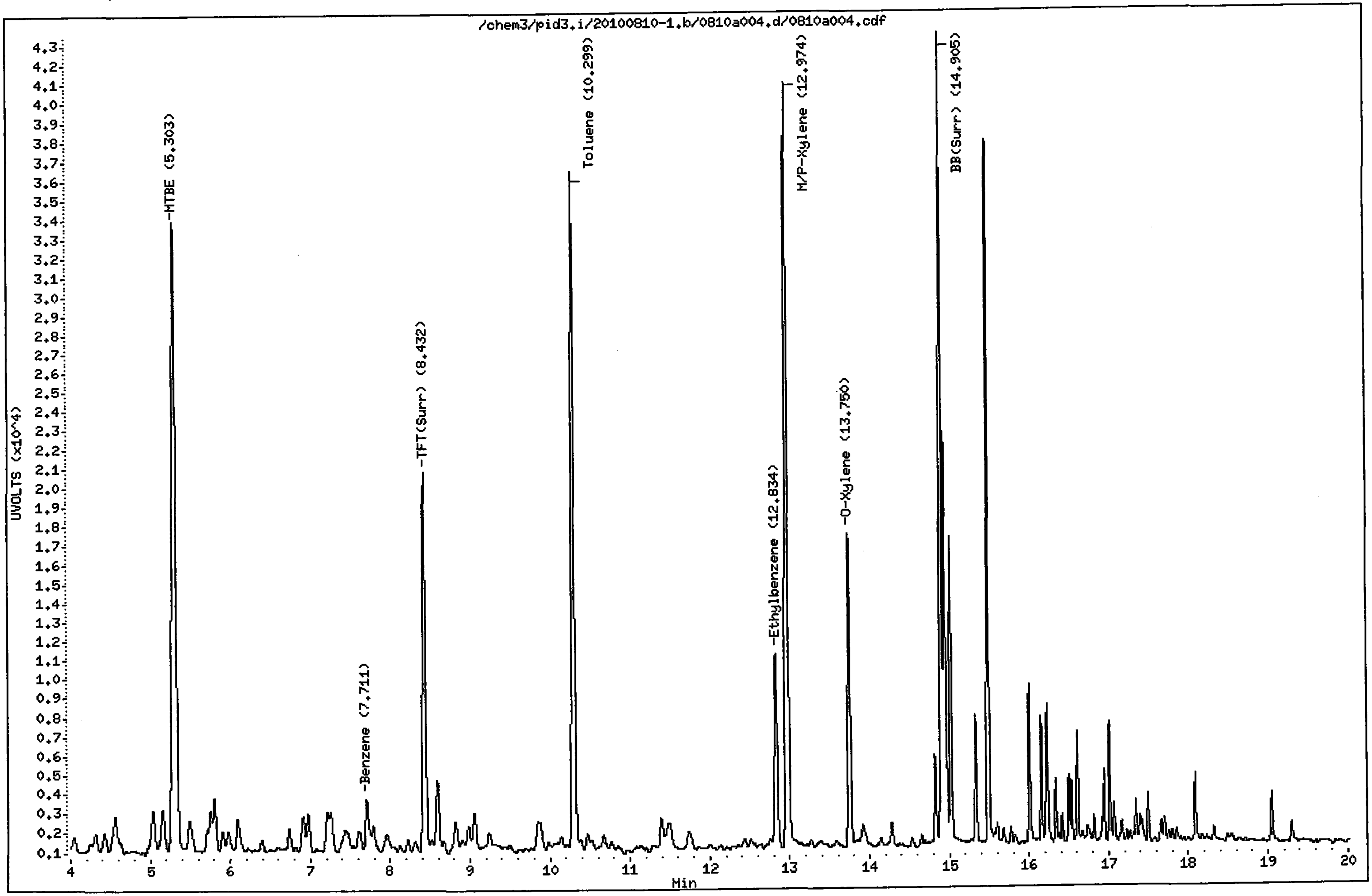


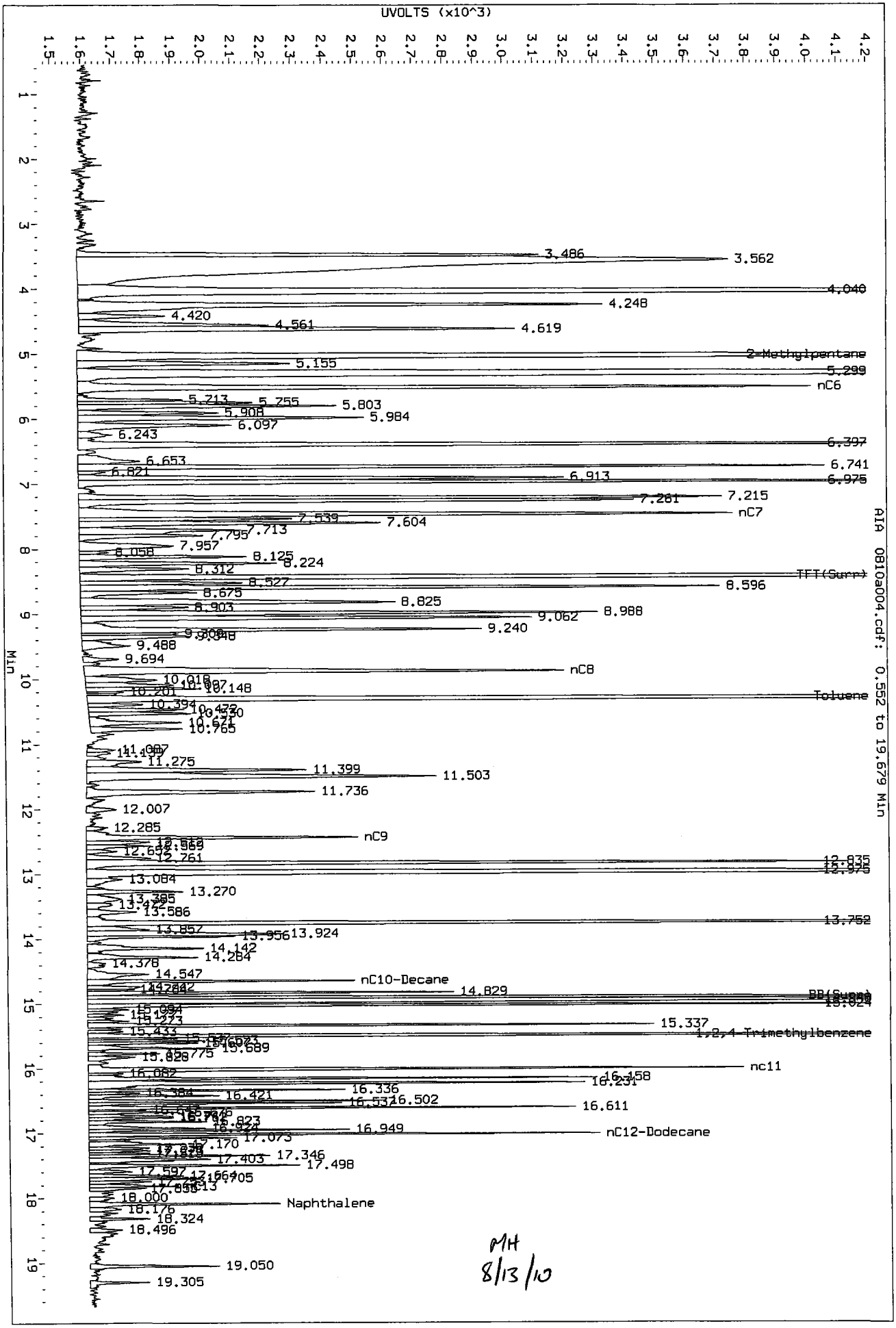
Data File: /chem3/pid3.i/20100810-1.b/0810a004.d
Date : 10-AUG-2010 07:10
Client ID:
Sample Info: LCS0810

Column phase: RTX 502-2 PID

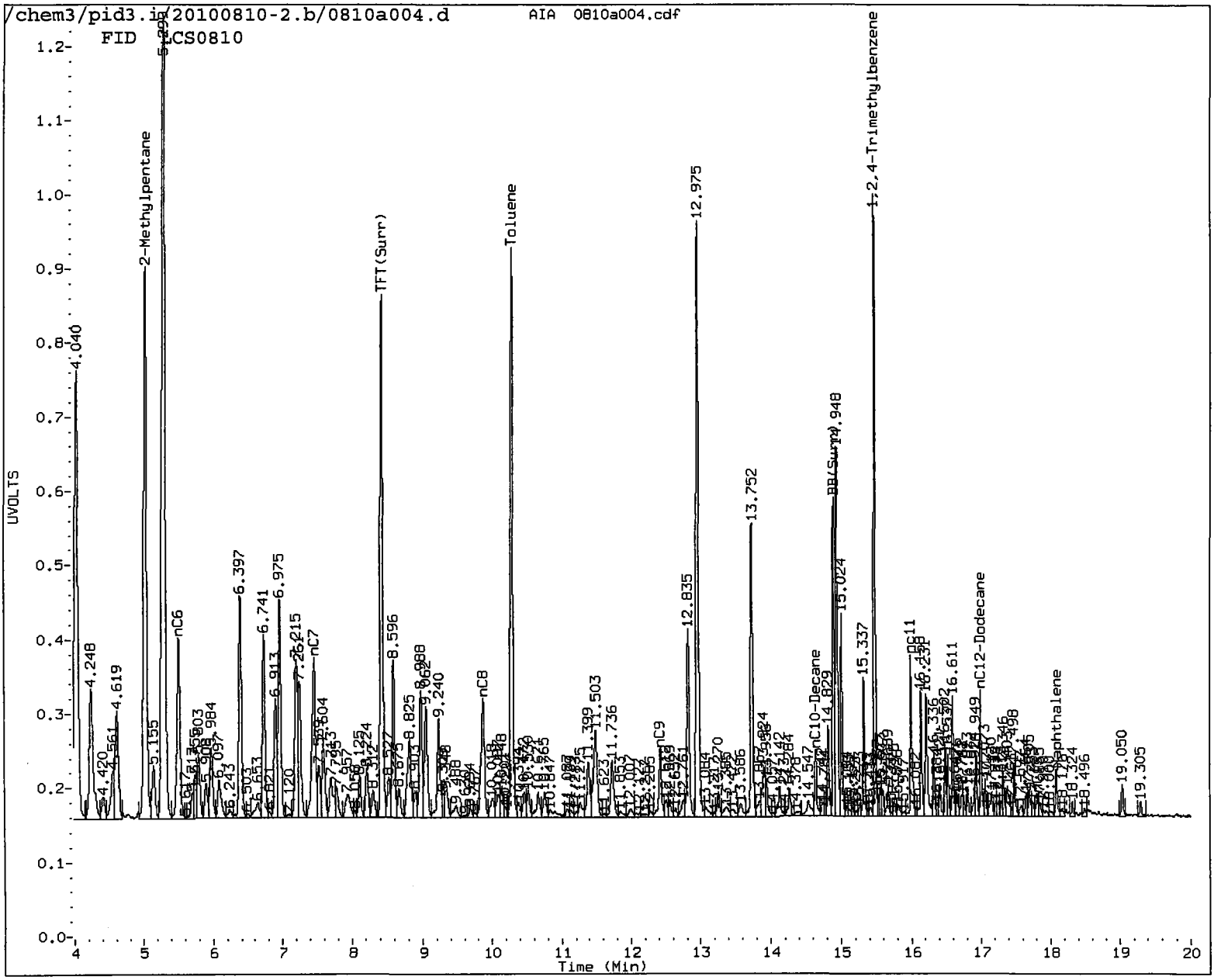
Instrument: pid3.i

Operator: MH
Column diameter: 0.18





MH
8/13/10



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a005.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a005.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: LCSD0810
Client ID:
Injection Date: 10-AUG-2010 07:35
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.030	6873	81569	95.5	TFT(Surr)
14.909	0.022	4223	34618	98.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	770655	0.931 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1558006	0.936 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1044522	0.923 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	823752	0.934 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.437	0.030	19430	88.4	TFT(Surr)
14.908	0.022	41974	92.1	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.715	0.027	2807	2.12	Benzene
10.304	0.032	36780	27.87	Toluene
12.838	0.034	10495	8.45	Ethylbenzene
12.978	0.036	40653	30.19	M/P-Xylene
13.755	0.030	16980	13.22	O-Xylene
5.307	0.015	33965	95.46	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a005.d

Date : 10-AUG-2010 07:35

Client ID:

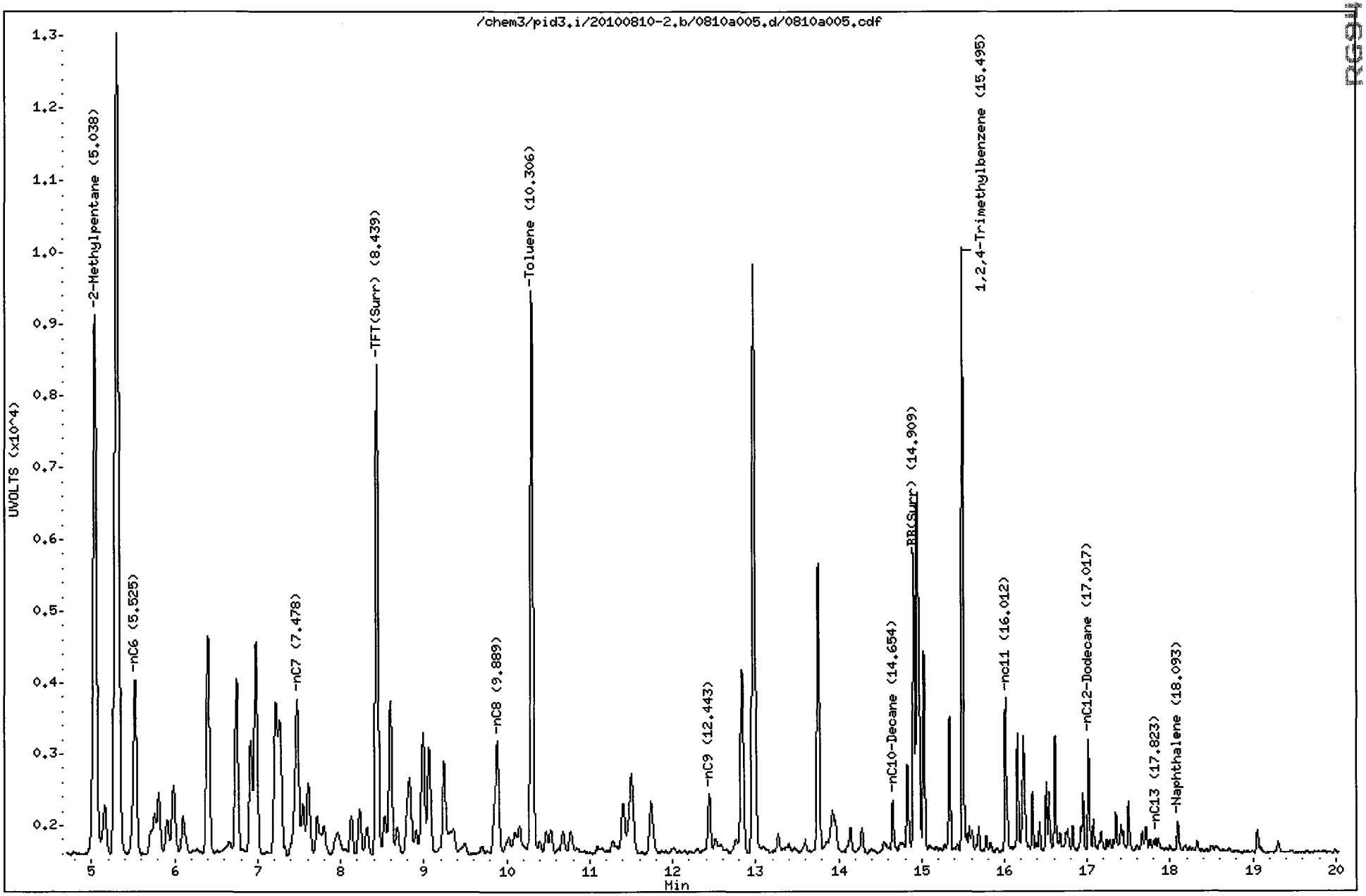
Sample Info: LCSD0810

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-1.b/0810a005.d

Date : 10-AUG-2010 07:35

Client ID:

Instrument: pid3.i

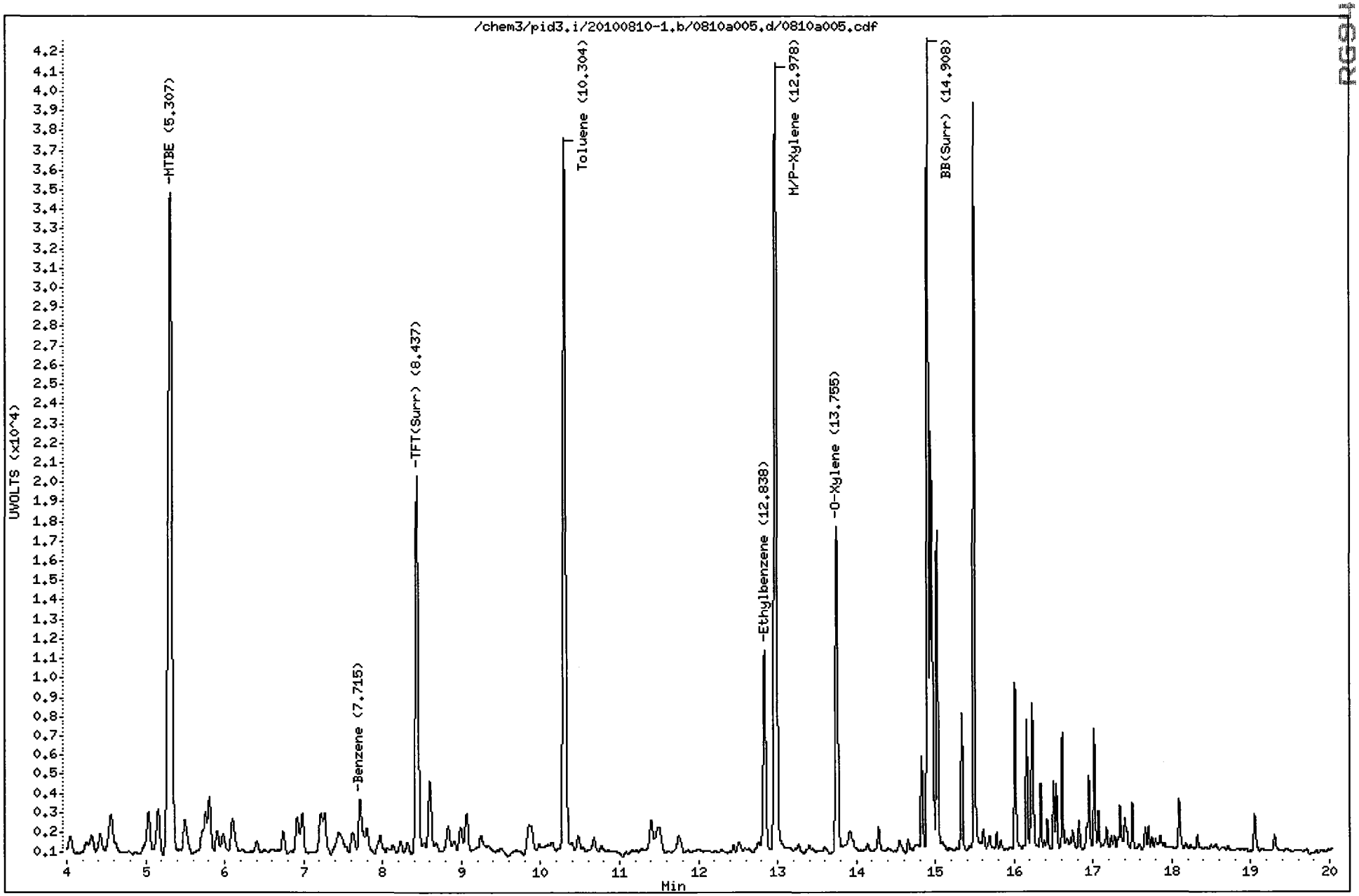
Sample Info: LCSD0810

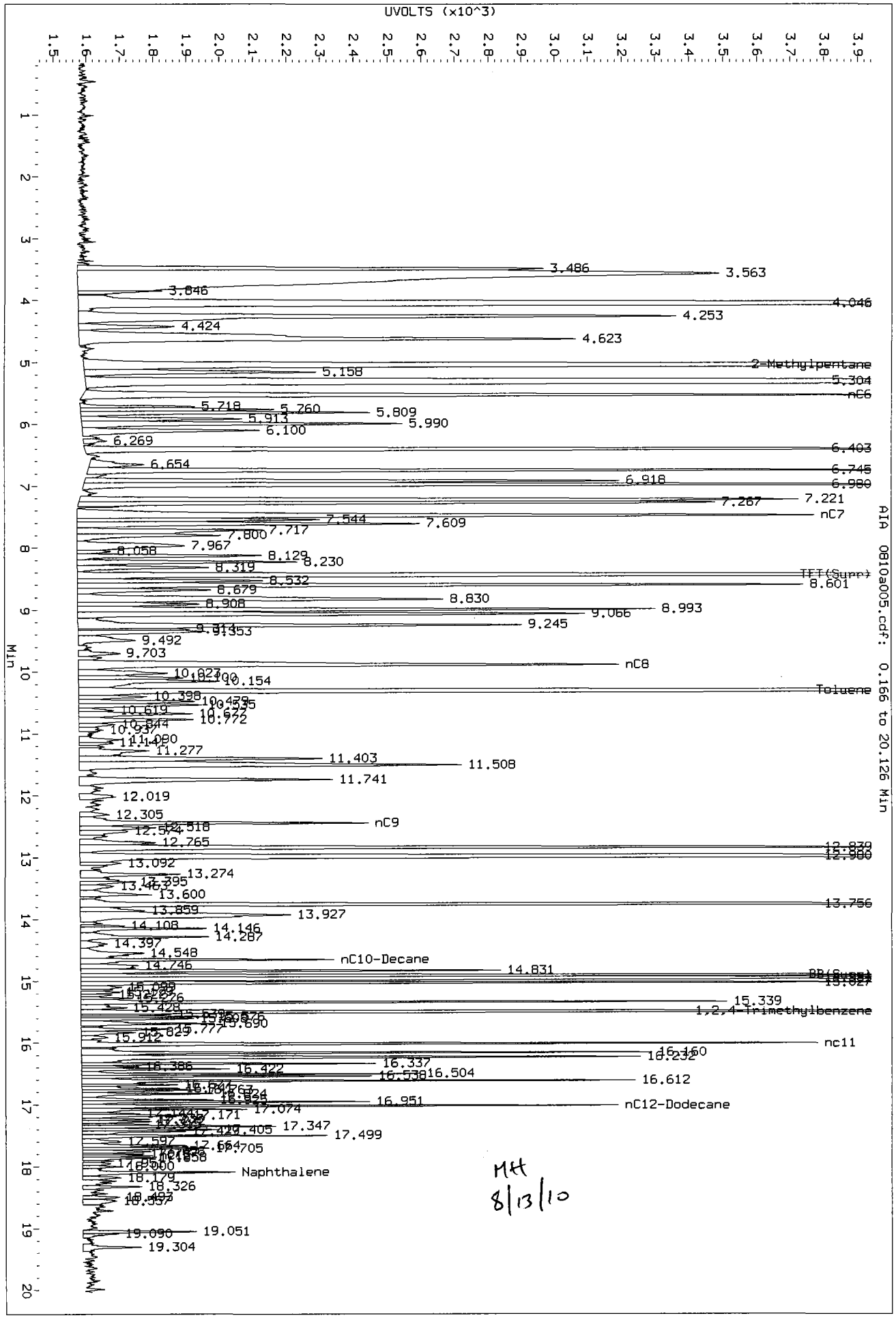
Operator: MH

Column phase: RTX 502-2 PID

Column diameter: 0.18

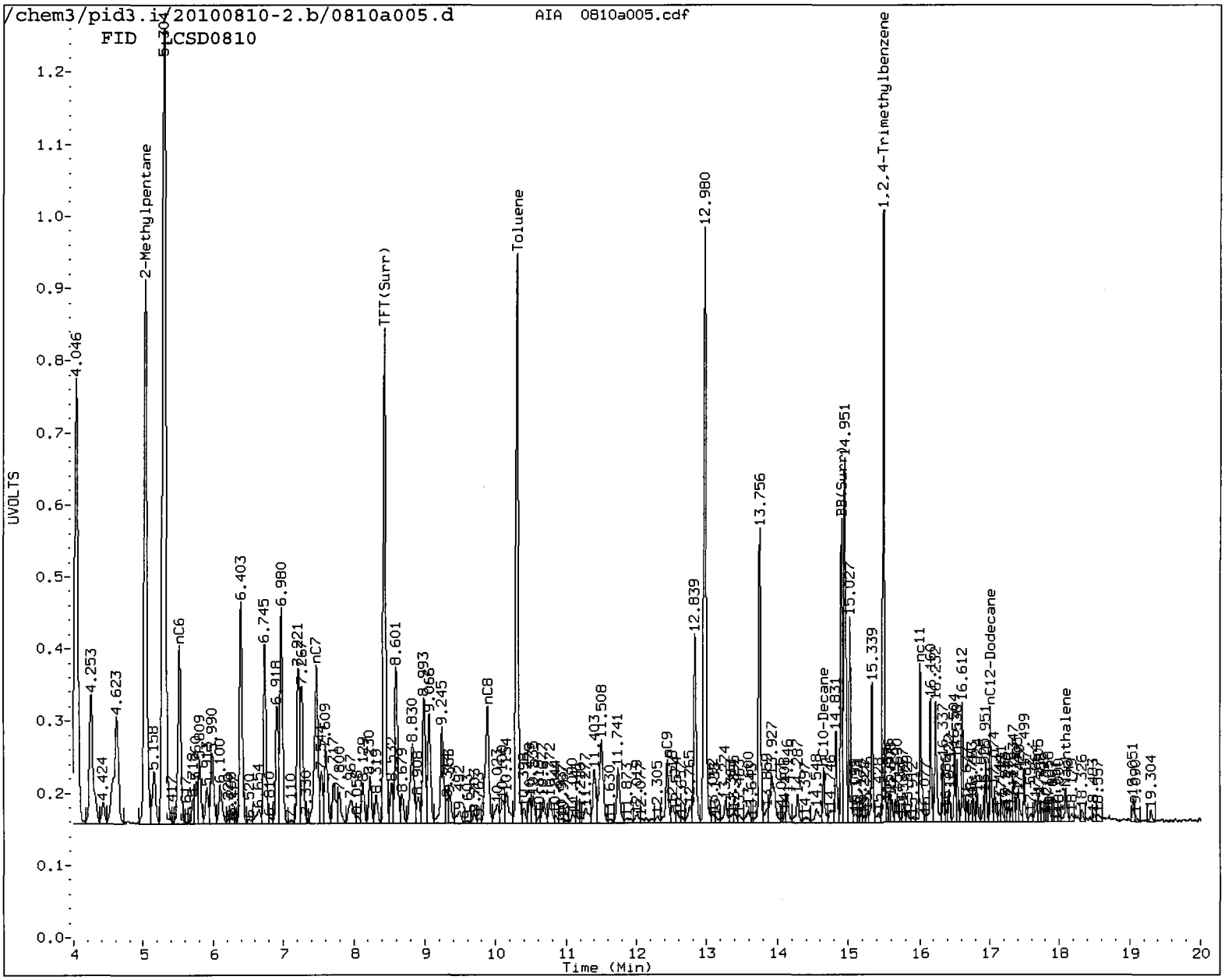
RGGI-01172





Data File: /chem3/pid3.i/20100810-2.b/0810a005.d/0810a005.cdf
Injection Date: 10-AUG-2010 07:35
Instrument: pid3.i
Client Sample ID:

MH
8/13/10



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

MB 8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a006.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a006.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: MB0810
Client ID:
Injection Date: 10-AUG-2010 07:59
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.031	6786	80026	94.3	TFT(Surr)
14.910	0.023	4165	34985	96.7	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	16866	0.020
8015B 2MP-TMB	(4.93 to 15.58)	1664107	9700	0.006
AK101 nC6-nC10	(5.41 to 14.53)	1131784	5622	0.005
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	23266	0.026

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.031	18993	86.4	TFT(Surr)
14.909	0.023	41194	90.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a006.d

Date : 10-AUG-2010 07:59

Client ID:

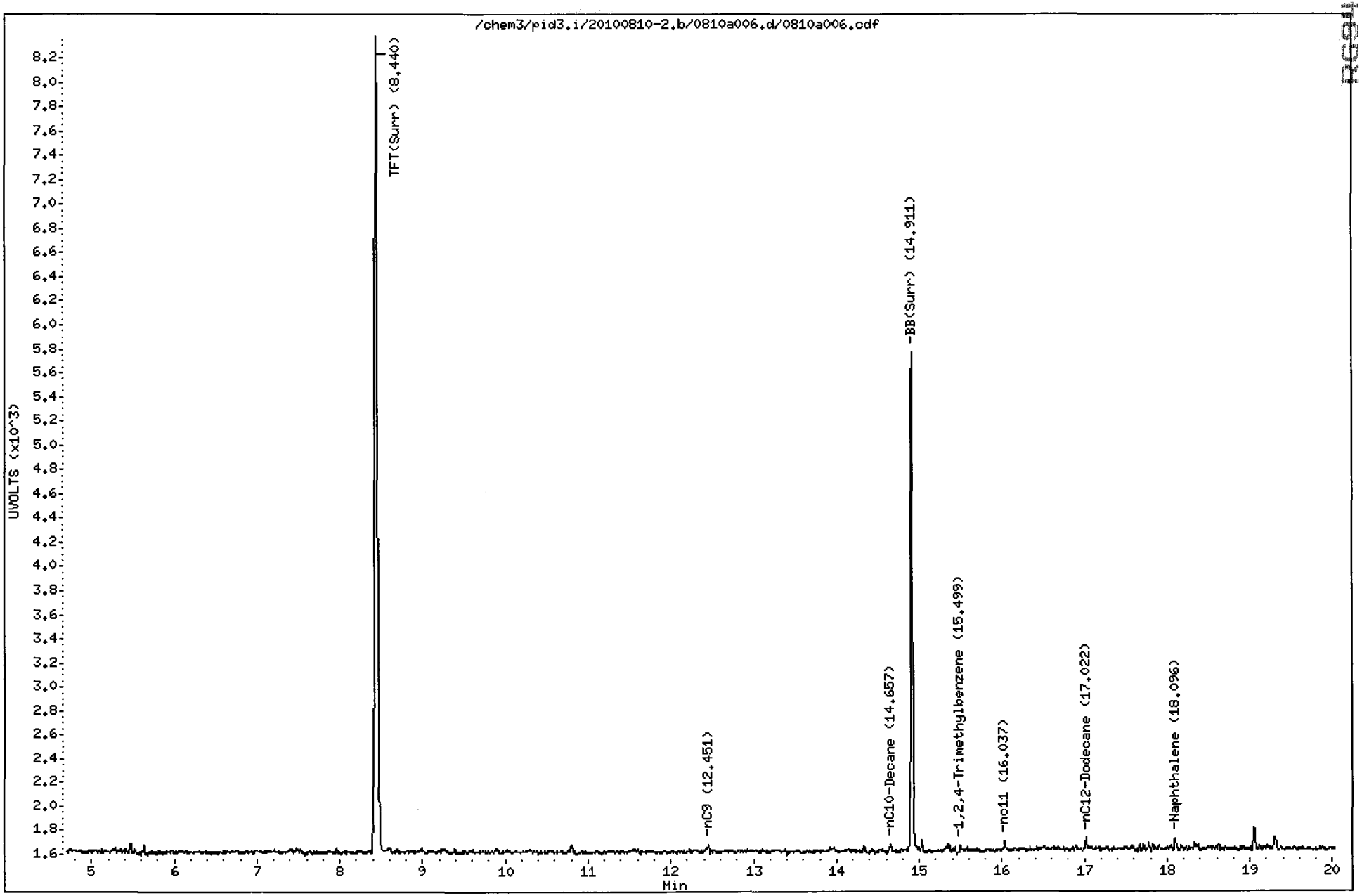
Sample Info: MB0810

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-1.b/0810a006.d

Date : 10-AUG-2010 07:59

Client ID:

Sample Info: MB0810

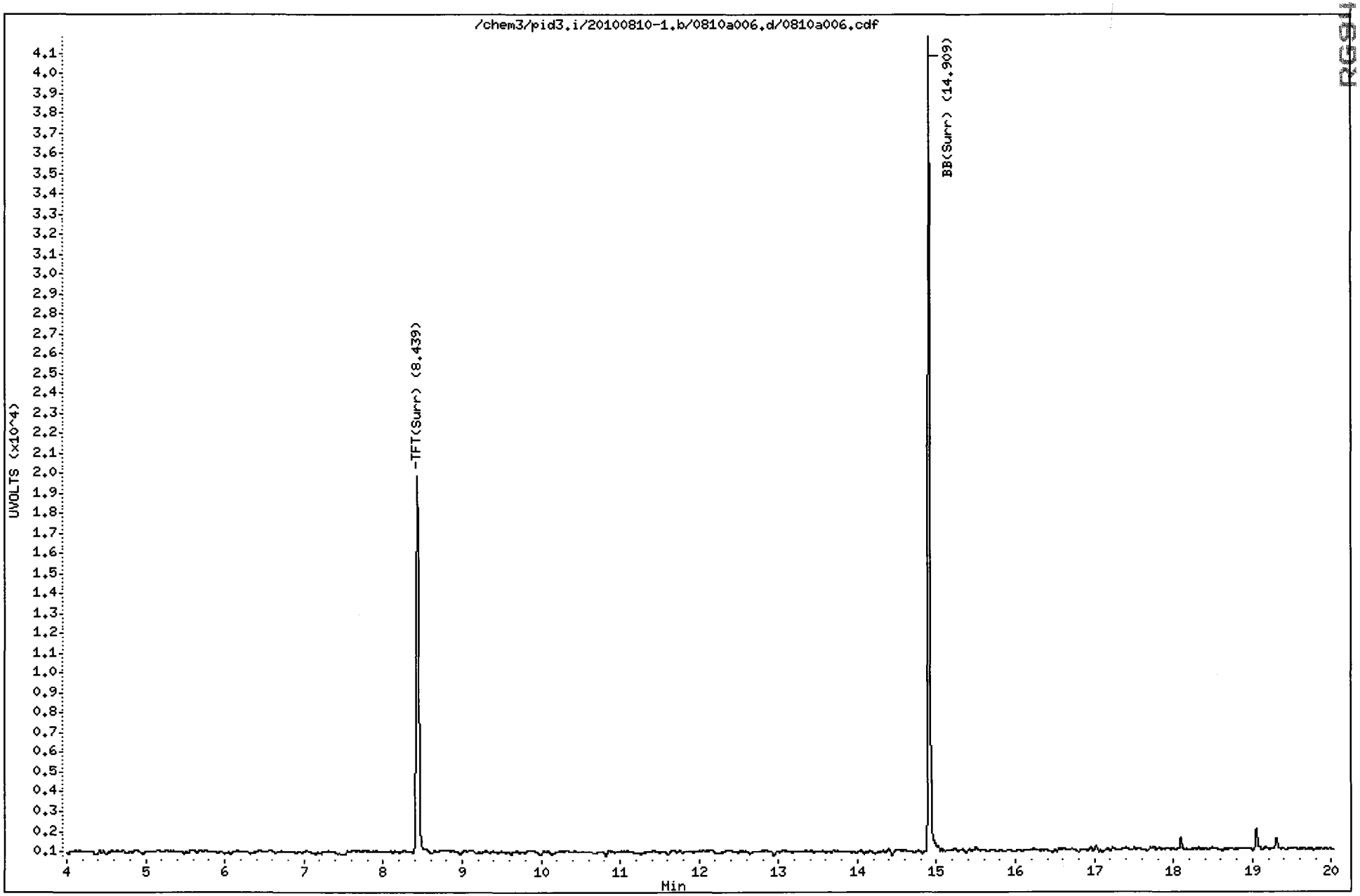
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

Reg1: 51178



M 8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a007.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a007.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94L
Client ID: MW12-TB-080210
Injection Date: 10-AUG-2010 08:52
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.374	-0.034	7151	85058	99.4	TFT(Surr)
14.876	-0.011	4209	35684	97.7	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	7159	0.009
8015B 2MP-TMB	(4.93 to 15.58)	1664107	4977	0.003
AK101 nC6-nC10	(5.41 to 14.53)	1131784	3809	0.003
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	8226	0.009

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.373	-0.034	20059	91.2	TFT(Surr)
14.875	-0.011	41431	90.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a007.d

Date : 10-AUG-2010 08:52

Client ID: MW12-TB-080210

Sample Info: RG94L

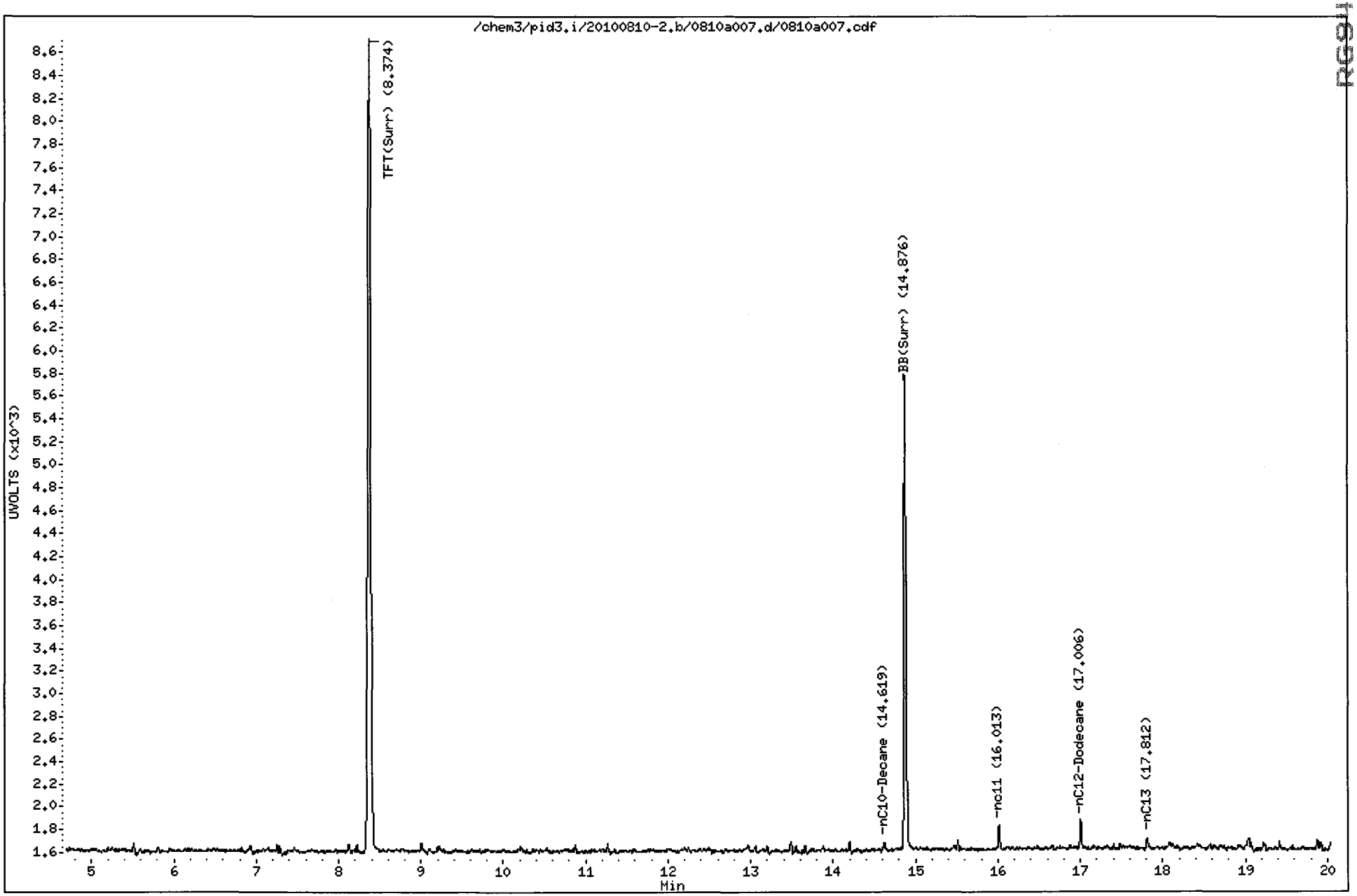
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94L 01180



Data File: /chem3/pid3.i/20100810-1.b/0810a007.d

Date : 10-AUG-2010 08:52

Client ID: MW12-TB-080210

Sample Info: RG94L

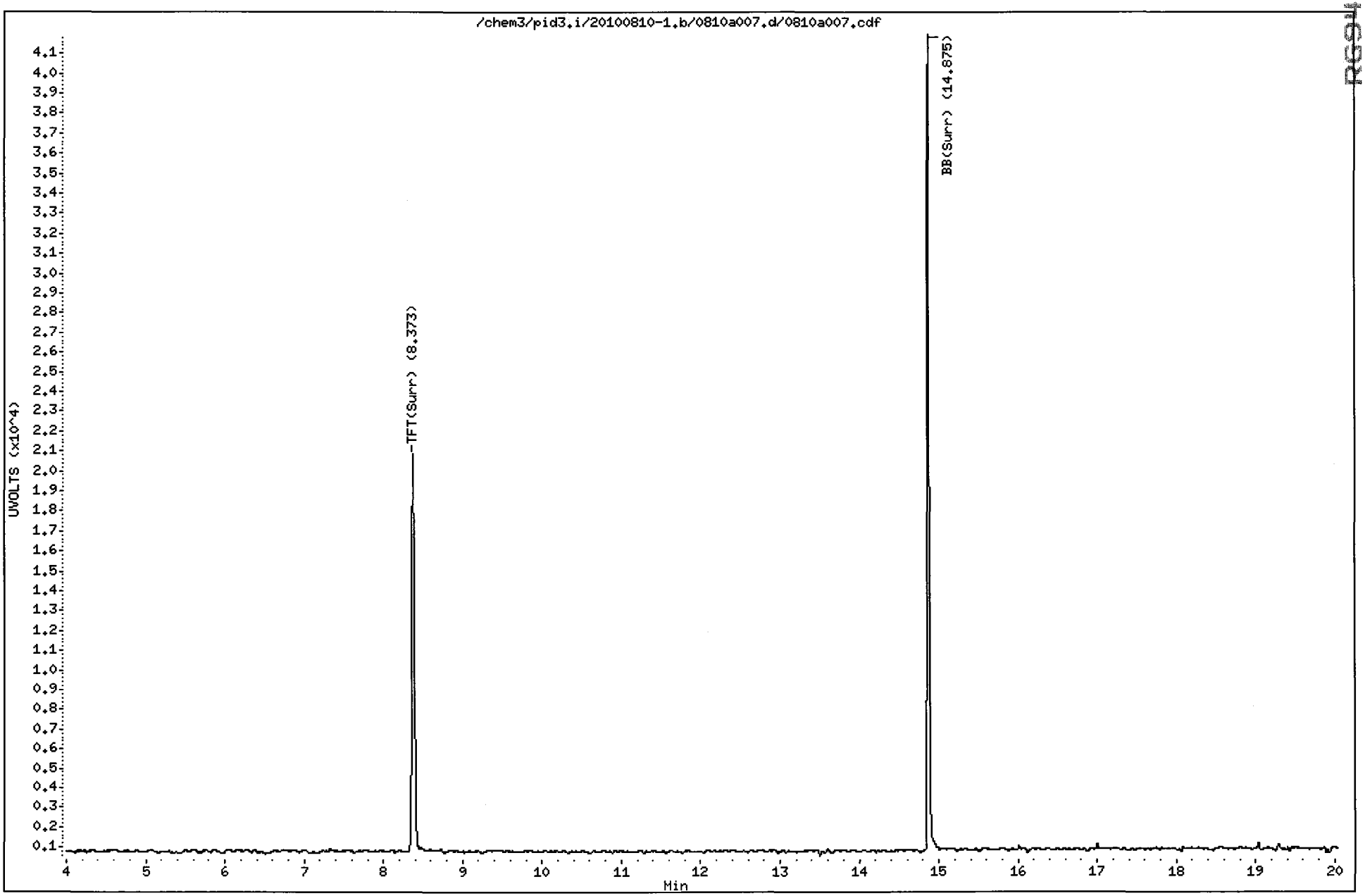
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94L.01181



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a008.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a008.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94K
Client ID: MW12-ER-080210
Injection Date: 10-AUG-2010 09:16
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.422	0.014	7076	84253	98.3	TFT(Surr)
14.897	0.010	4247	36300	98.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	18838	0.023
8015B 2MP-TMB	(4.93 to 15.58)	1664107	11325	0.007
AK101 nC6-nC10	(5.41 to 14.53)	1131784	10107	0.009
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	31162	0.035

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.421	0.014	19757	89.9	TFT(Surr)
14.896	0.010	41318	90.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a008.d

Date : 10-AUG-2010 09:16

Client ID: MW12-ER-080210

Sample Info: RG94K

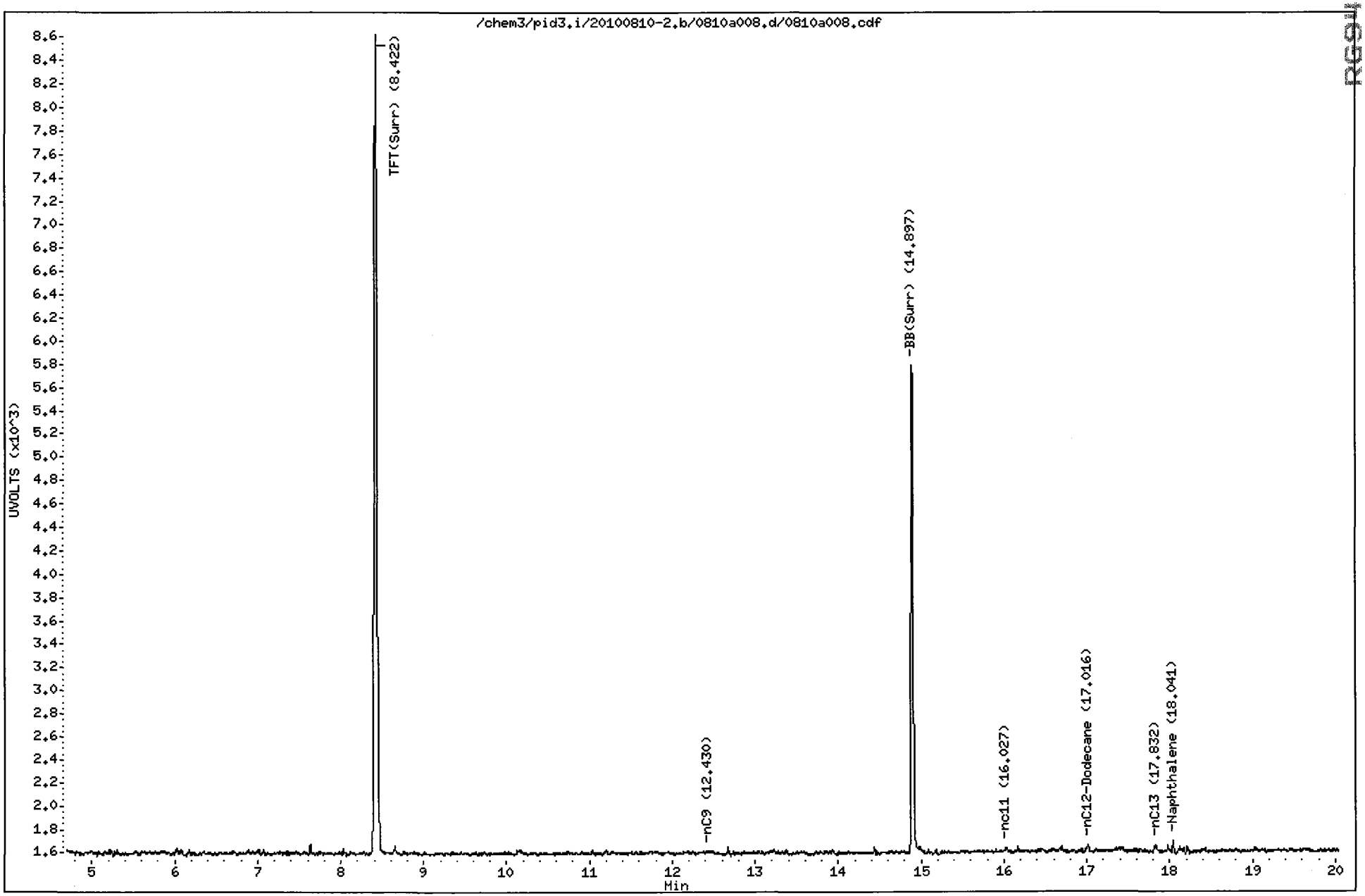
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94K-01183



Data File: /chem3/pid3.i/20100810-1.b/0810a008.d

Date : 10-AUG-2010 09:16

Client ID: MW12-ER-080210

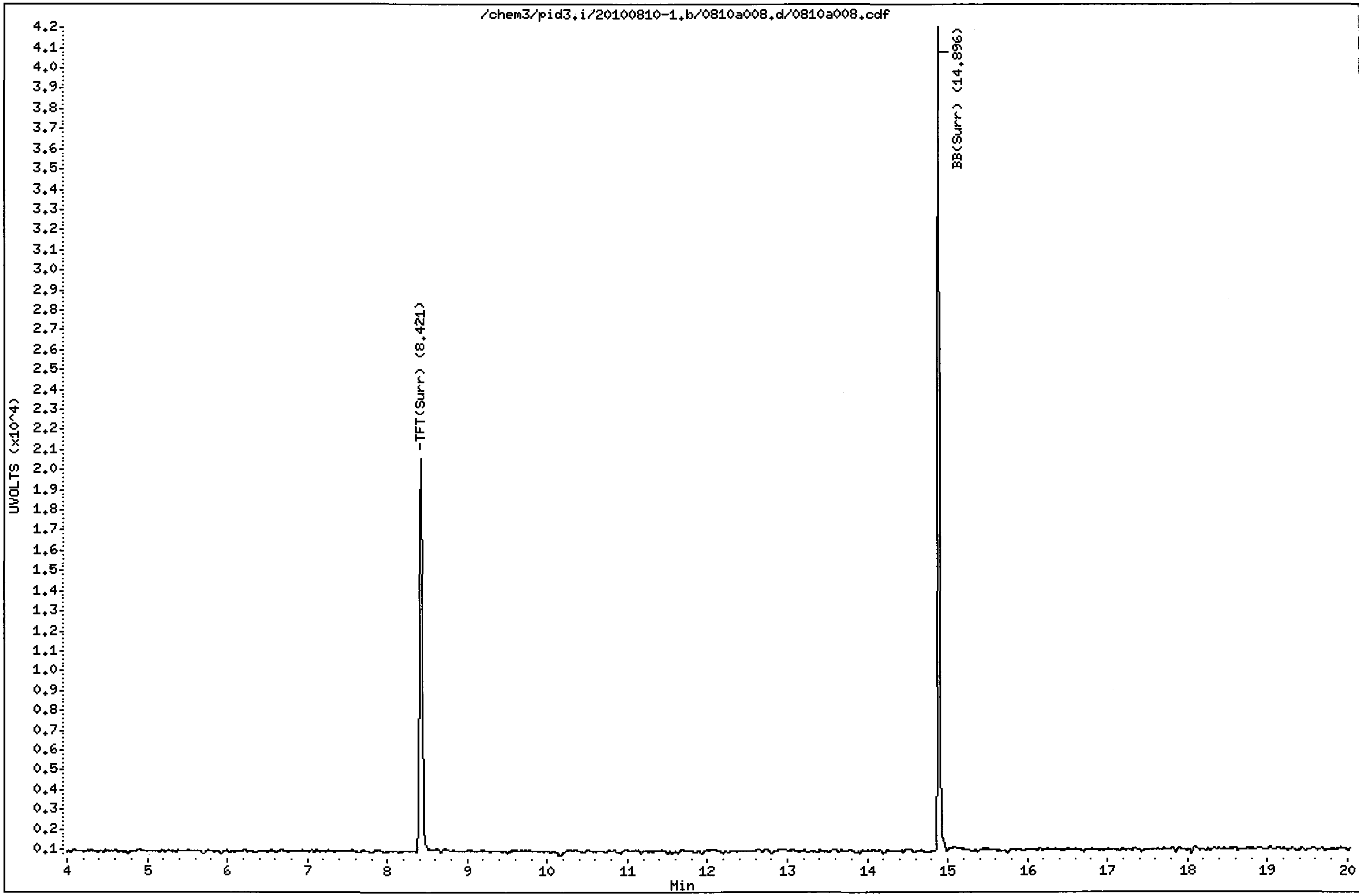
Instrument: pid3.i

Sample Info: RG94K

Operator: MH

Column phase: RTX 502-2 PID

Column diameter: 0.18



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a009.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a009.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94A
Client ID: MW14-15-16.5-080210
Injection Date: 10-AUG-2010 09:41
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.433	0.024	7038	83322	97.8	TFT(Surr)
14.905	0.017	4271	35308	99.2	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	11521	0.014
8015B 2MP-TMB	(4.93 to 15.58)	1664107	13541	0.008
AK101 nC6-nC10	(5.41 to 14.53)	1131784	10071	0.009
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	12933	0.015

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.431	0.024	19591	89.1	TFT(Surr)
14.903	0.017	41464	91.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a009.d

Date : 10-AUG-2010 09:41

Client ID: MW14-15-16.5-080210

Sample Info: RG94A

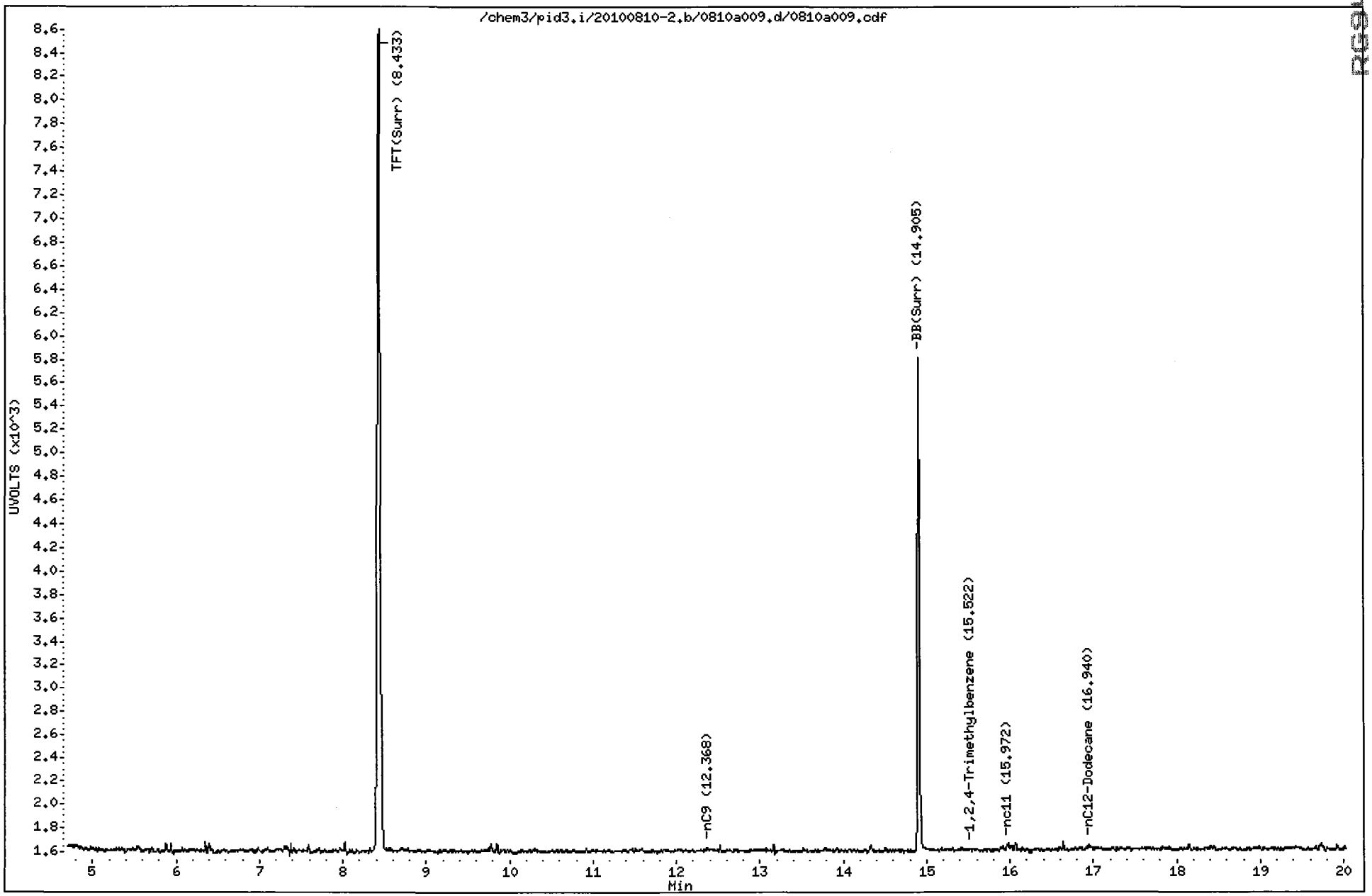
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94-S1136



Data File: /chem3/pid3.i/20100810-1.b/0810a009.d

Date : 10-AUG-2010 09:41

Client ID: MW14-15-16.5-080210

Sample Info: RG94A

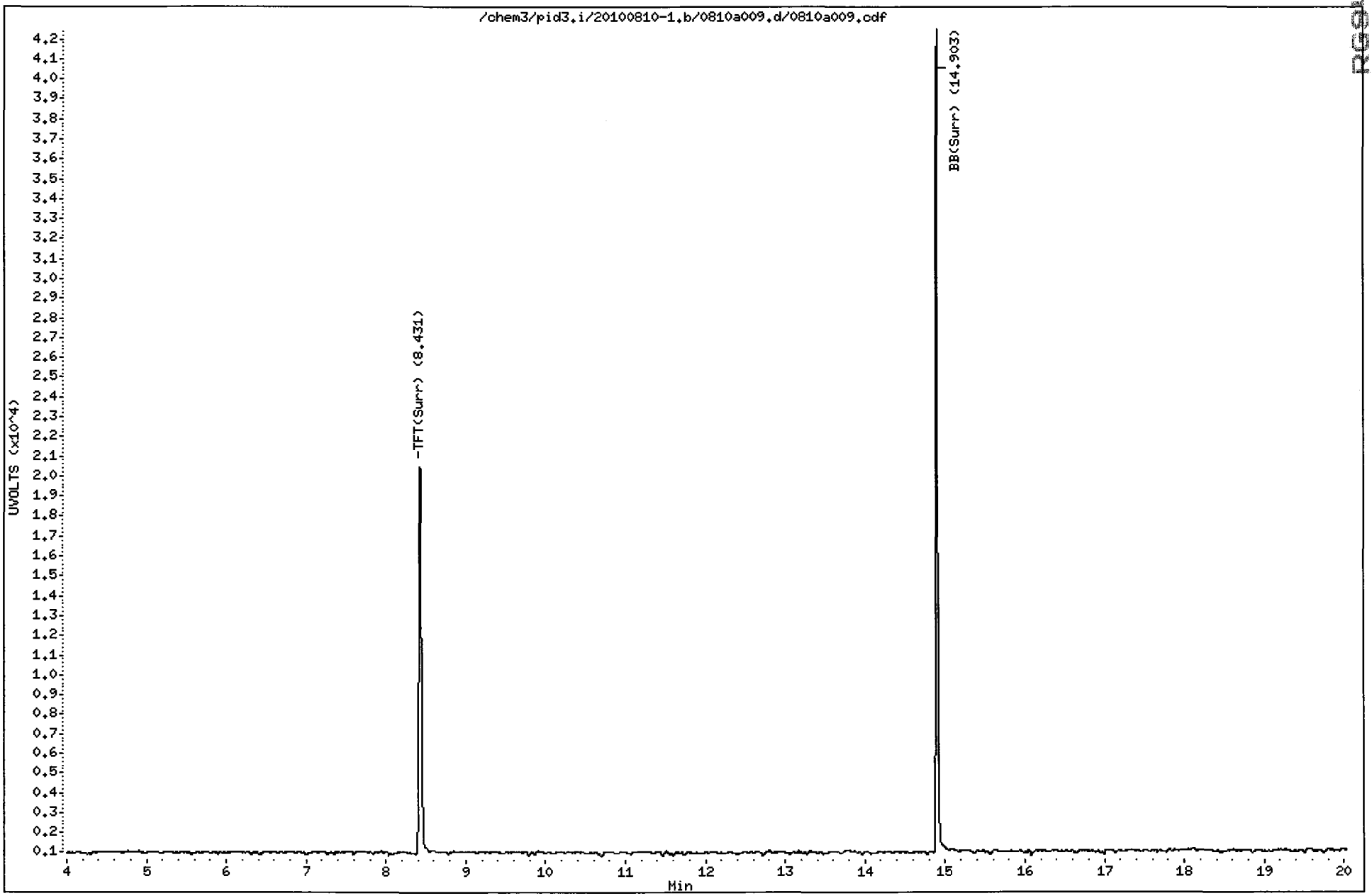
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94 - 01437



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a010.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a010.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94B
Client ID: MW14-22.5-24-080210
Injection Date: 10-AUG-2010 10:06
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.437	0.028	7082	82890	98.4	TFT(Surr)
14.909	0.021	4322	34863	100.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1	0.000
8015B 2MP-TMB	(4.93 to 15.58)	1664107	4703	0.003
AK101 nC6-nC10	(5.41 to 14.53)	1131784	4702	0.004
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2443	0.003

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.436	0.028	19787	90.0	TFT(Surr)
14.908	0.021	41945	92.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a010.d

Date : 10-AUG-2010 10:06

Client ID: MW14-22.5-24-080210

Sample Info: RG94B

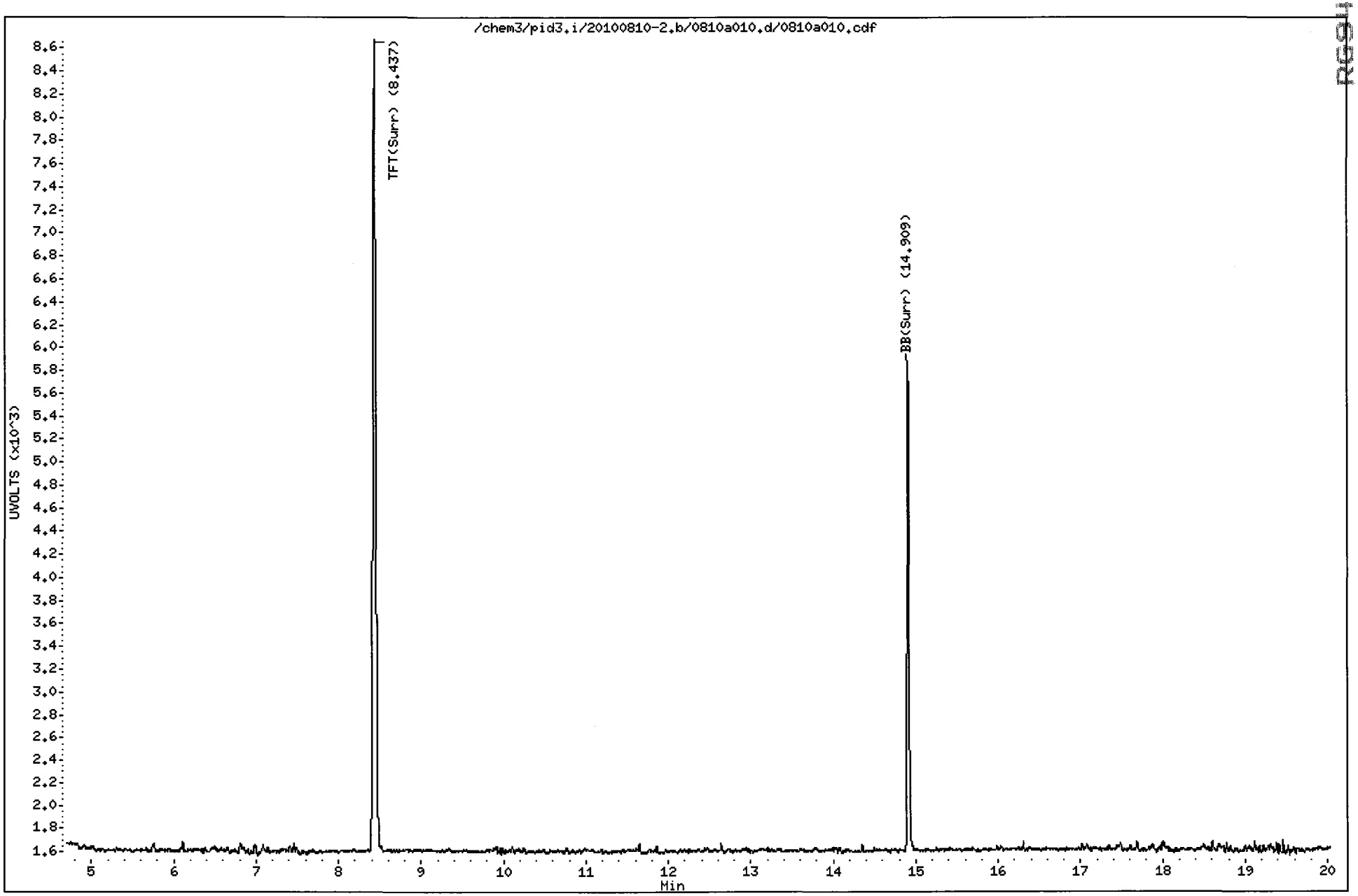
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94-61489



Data File: /chem3/pid3.i/20100810-1.b/0810a010.d

Date : 10-AUG-2010 10:06

Client ID: MW14-22.5-24-080210

Sample Info: RG94B

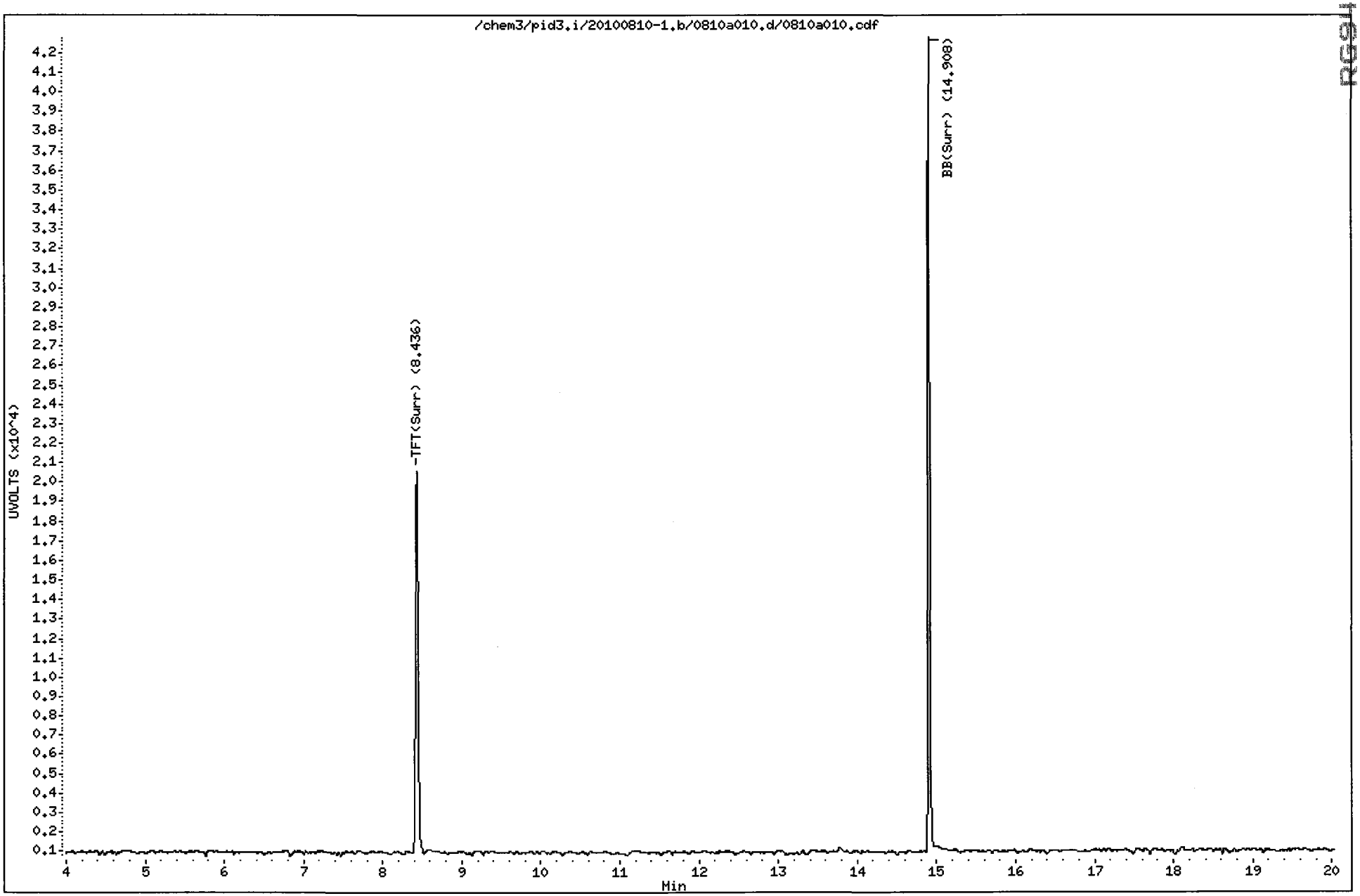
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94 : 61198



8/31

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a011.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a011.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94C
Client ID: MW13-10-11.5-080210
Injection Date: 10-AUG-2010 10:30
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.031	7056	83520	98.0	TFT(Surr)
14.910	0.023	4303	34849	99.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1	0.000
8015B 2MP-TMB	(4.93 to 15.58)	1664107	2	0.000
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1	0.000
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2675	0.003

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.438	0.030	19573	89.0	TFT(Surr)
14.908	0.022	42134	92.4	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a011.d

Date : 10-AUG-2010 10:30

Client ID: MW13-10-11.5-080210

Sample Info: RG94C

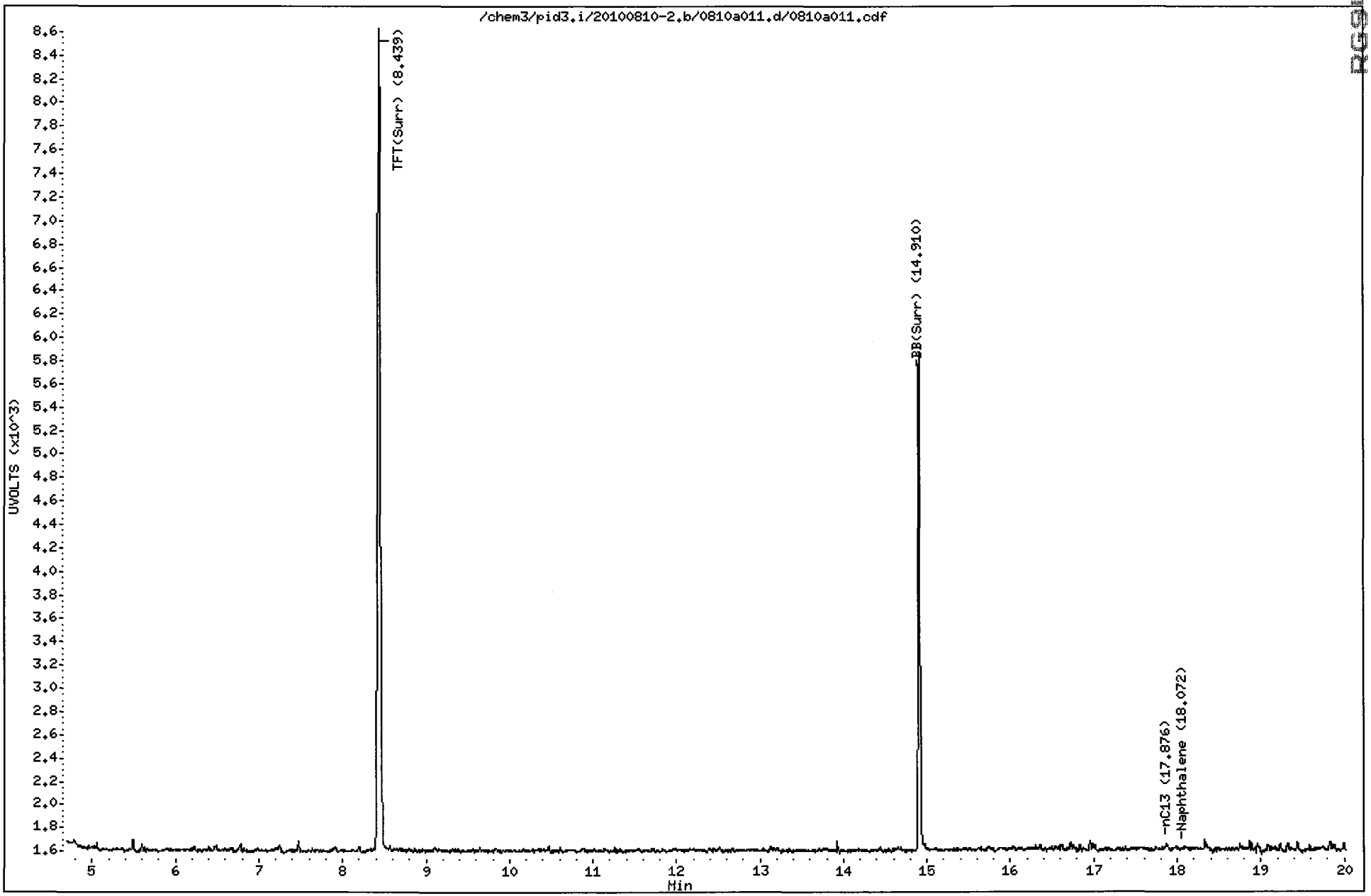
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94C-041192

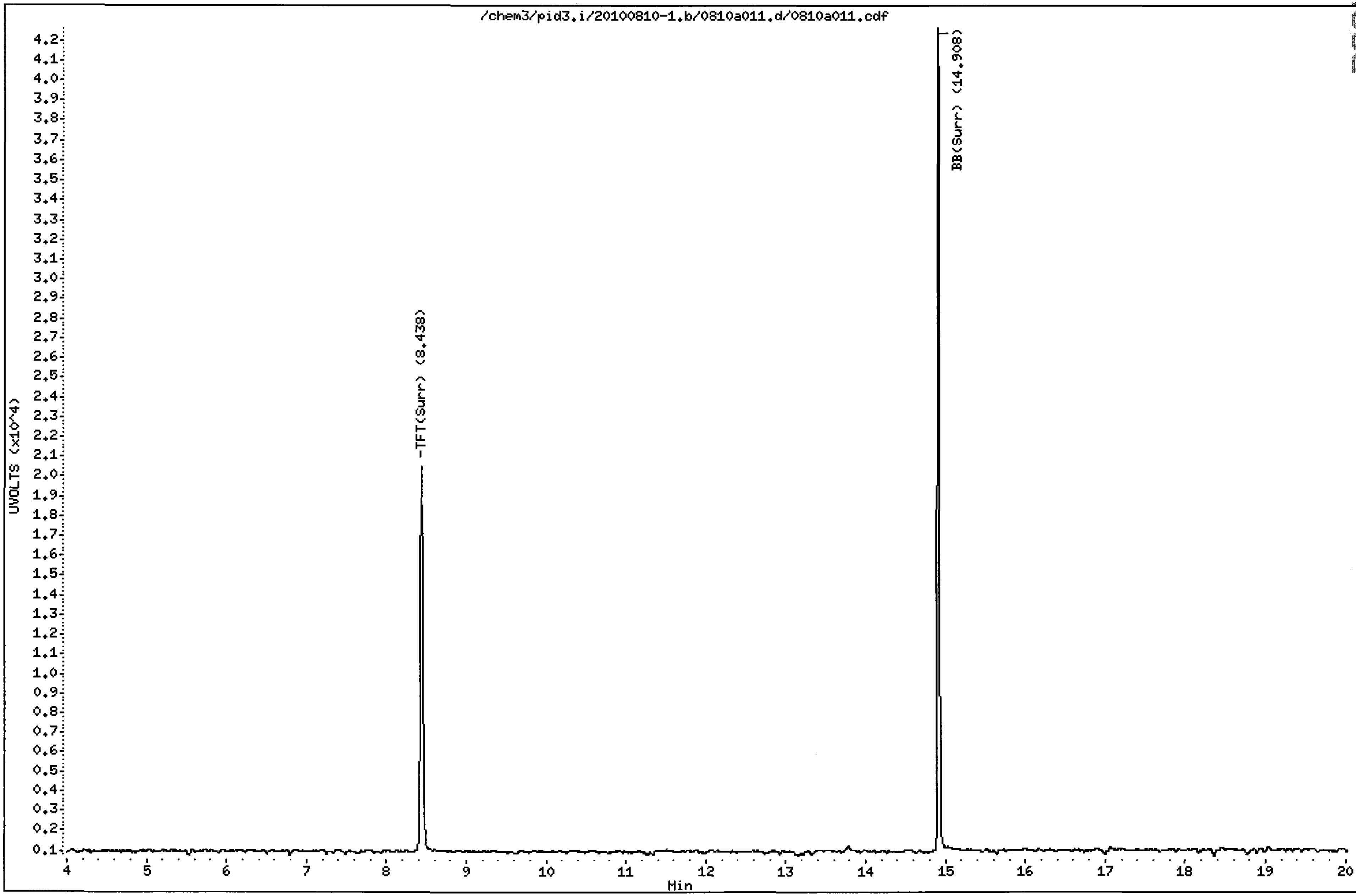


Data File: /chem3/pid3.i/20100810-1.b/0810a011.d
Date : 10-AUG-2010 10:30
Client ID: MW13-10-11.5-080210
Sample Info: RG94C

Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH
Column diameter: 0.18



8/13/1

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a012.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a012.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94D
Client ID: MW13-14-14.5-080210
Injection Date: 10-AUG-2010 10:54
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.444	0.036	6897	81523	95.8	TFT(Surr)
14.912	0.024	4214	34937	97.8	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	39134	0.047
8015B 2MP-TMB	(4.93 to 15.58)	1664107	37050	0.022
AK101 nC6-nC10	(5.41 to 14.53)	1131784	37050	0.033
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	39134	0.044

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.443	0.036	19292	87.8	TFT(Surr)
14.910	0.024	41888	91.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a012.d

Date : 10-AUG-2010 10:54

Client ID: MW13-14-14.5-080210

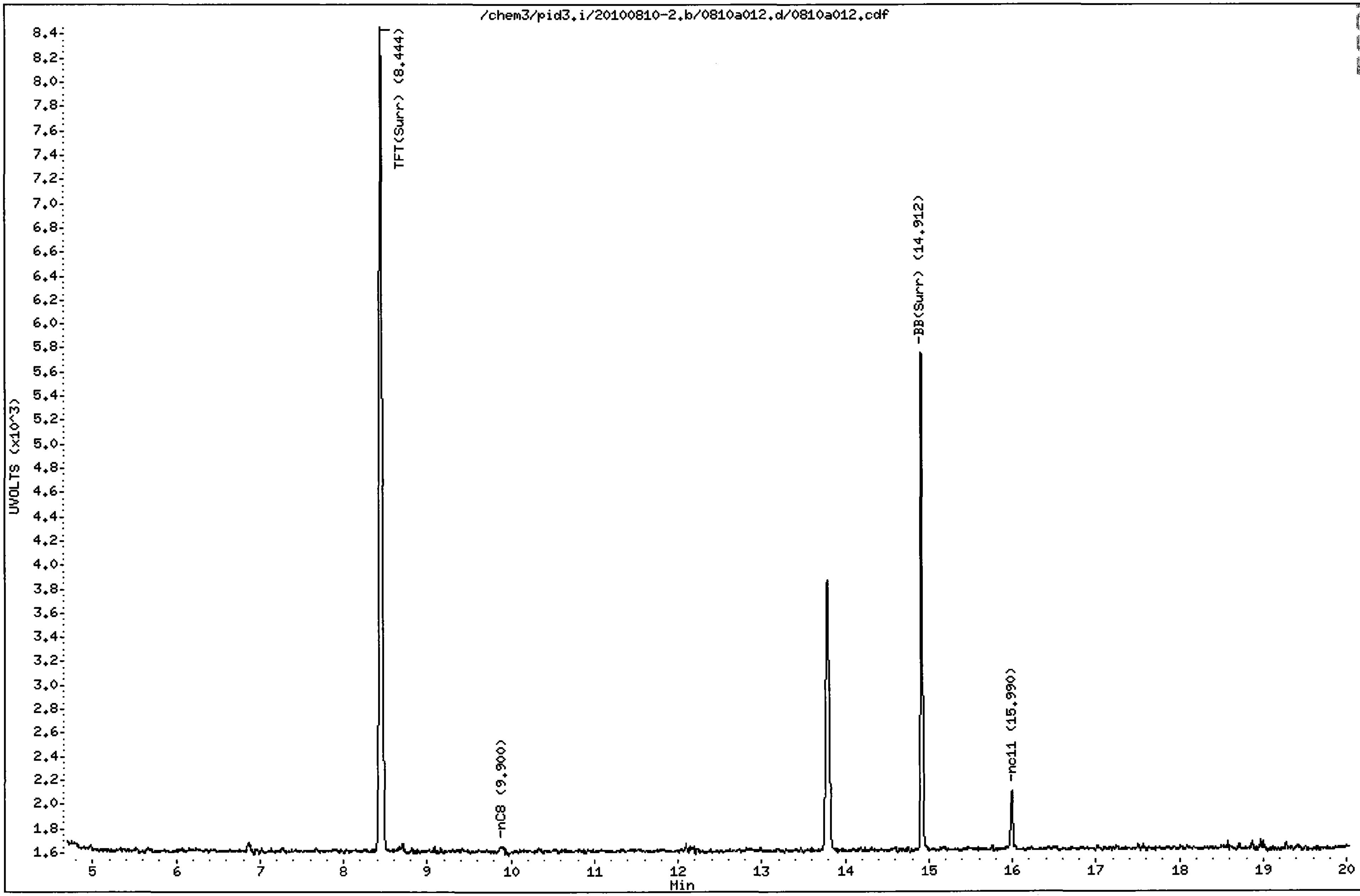
Sample Info: RG94D

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-1.b/0810a012.d

Date : 10-AUG-2010 10:54

Client ID: MW13-14-14.5-080210

Sample Info: RG94D

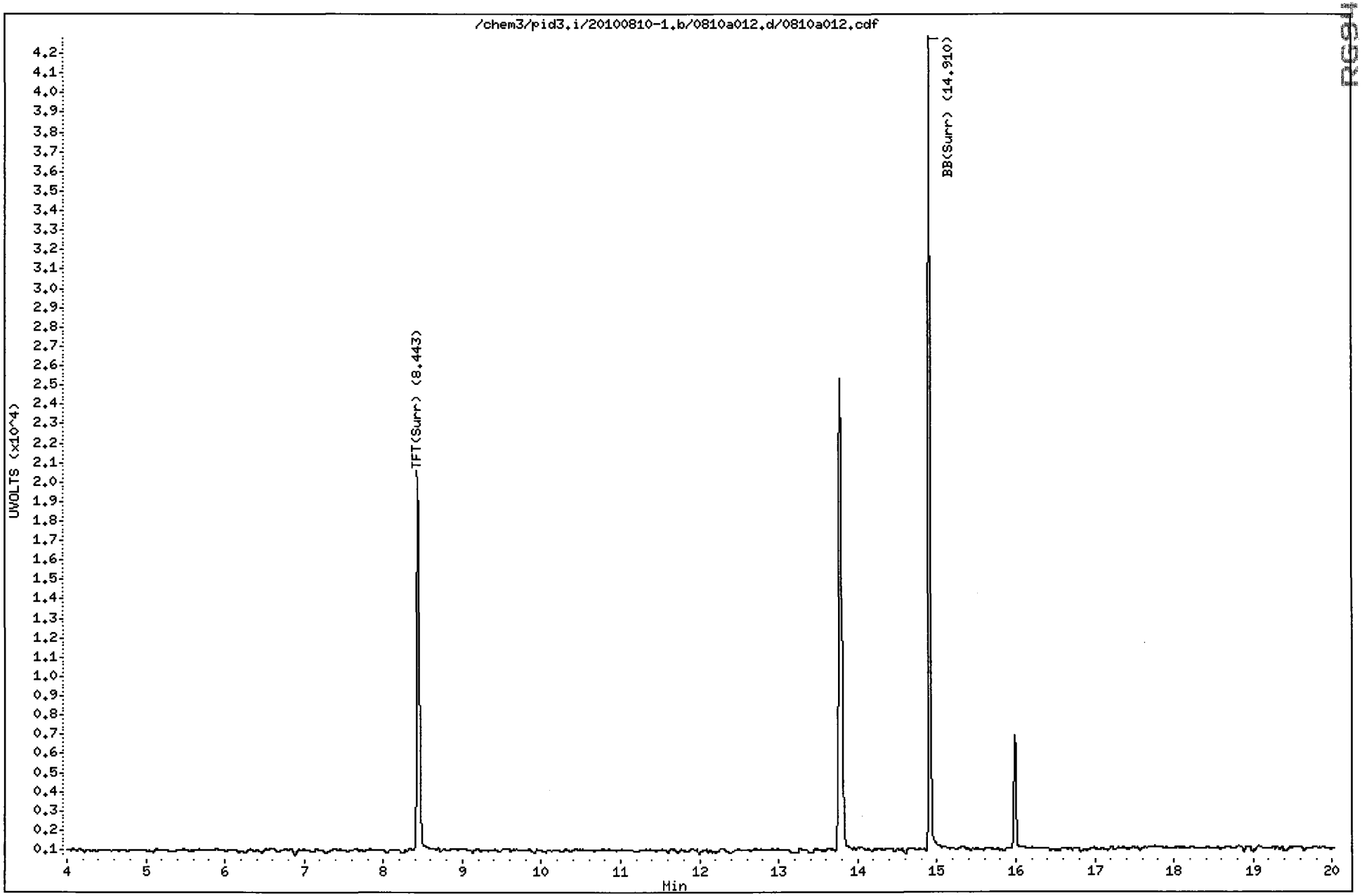
Instrument: pid3.i

Operator: MH

Column phase: RTX 502-2 PID

Column diameter: 0.18

RG94 - 01 of 96



8/13/

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a014.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a014.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BCAL 2
Client ID:
Injection Date: 10-AUG-2010 11:43
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.441	0.032	7122	83278	98.9	TFT(Surr)
14.911	0.024	4393	35687	102.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	567451	0.685
8015B 2MP-TMB	(4.93 to 15.58)	1664107	569660	0.342
AK101 nC6-nC10	(5.41 to 14.53)	1131784	528292	0.467
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	567451	0.643

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.032	19988	90.9	TFT(Surr)
14.910	0.024	43638	95.7	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.715	0.027	33452	25.30	Benzene
10.306	0.035	32565	24.67	Toluene
12.841	0.037	29504	23.74	Ethylbenzene
12.979	0.037	64596	47.97	M/P-Xylene
13.757	0.033	31187	24.27	O-Xylene
5.305	0.014	9461	26.59	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a014.d

Date : 10-AUG-2010 11:43

Client ID:

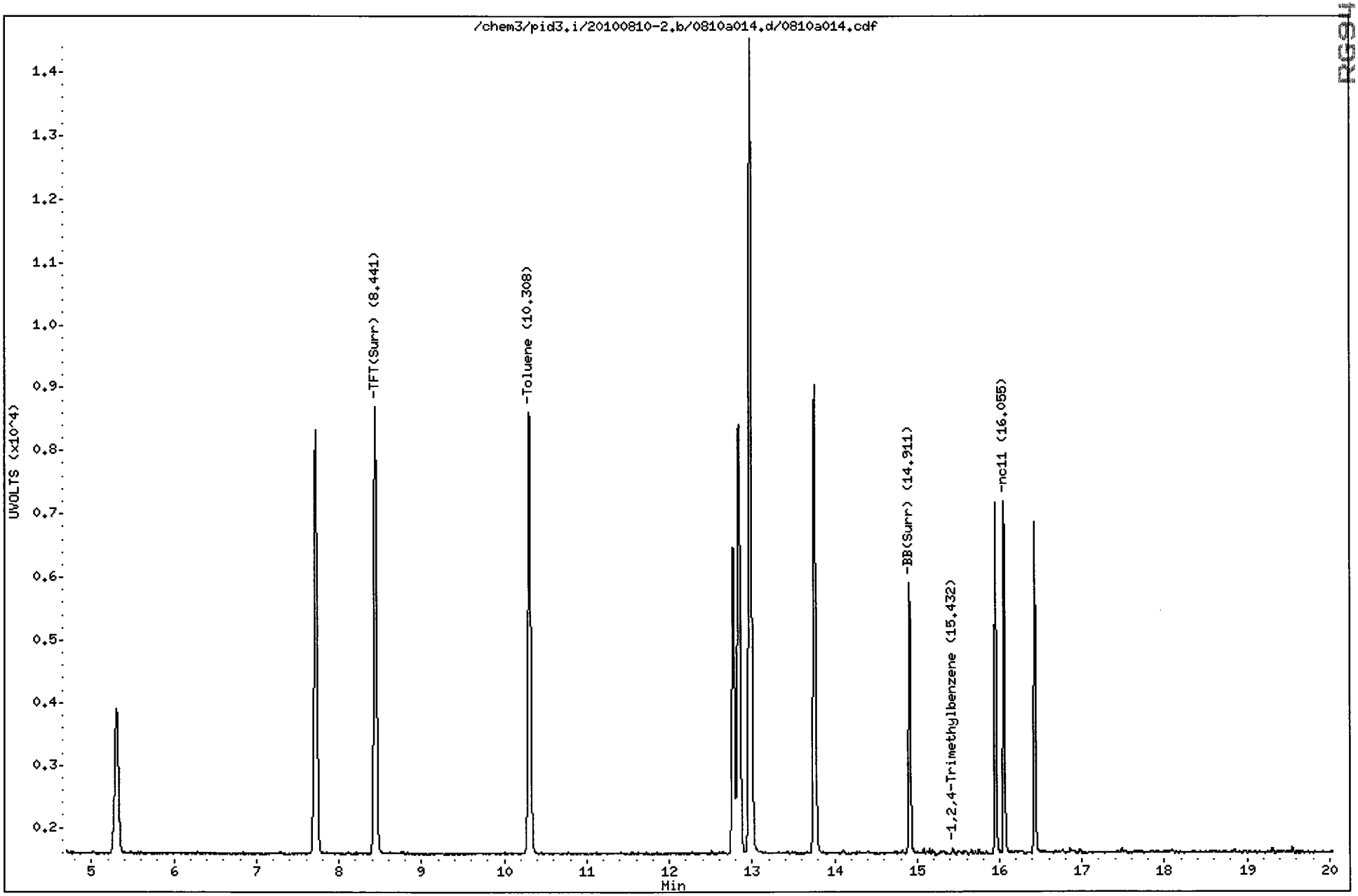
Sample Info: BCAL 2

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-1.b/0810a014.d

Date : 10-AUG-2010 11:43

Client ID:

Sample Info: BCAL 2

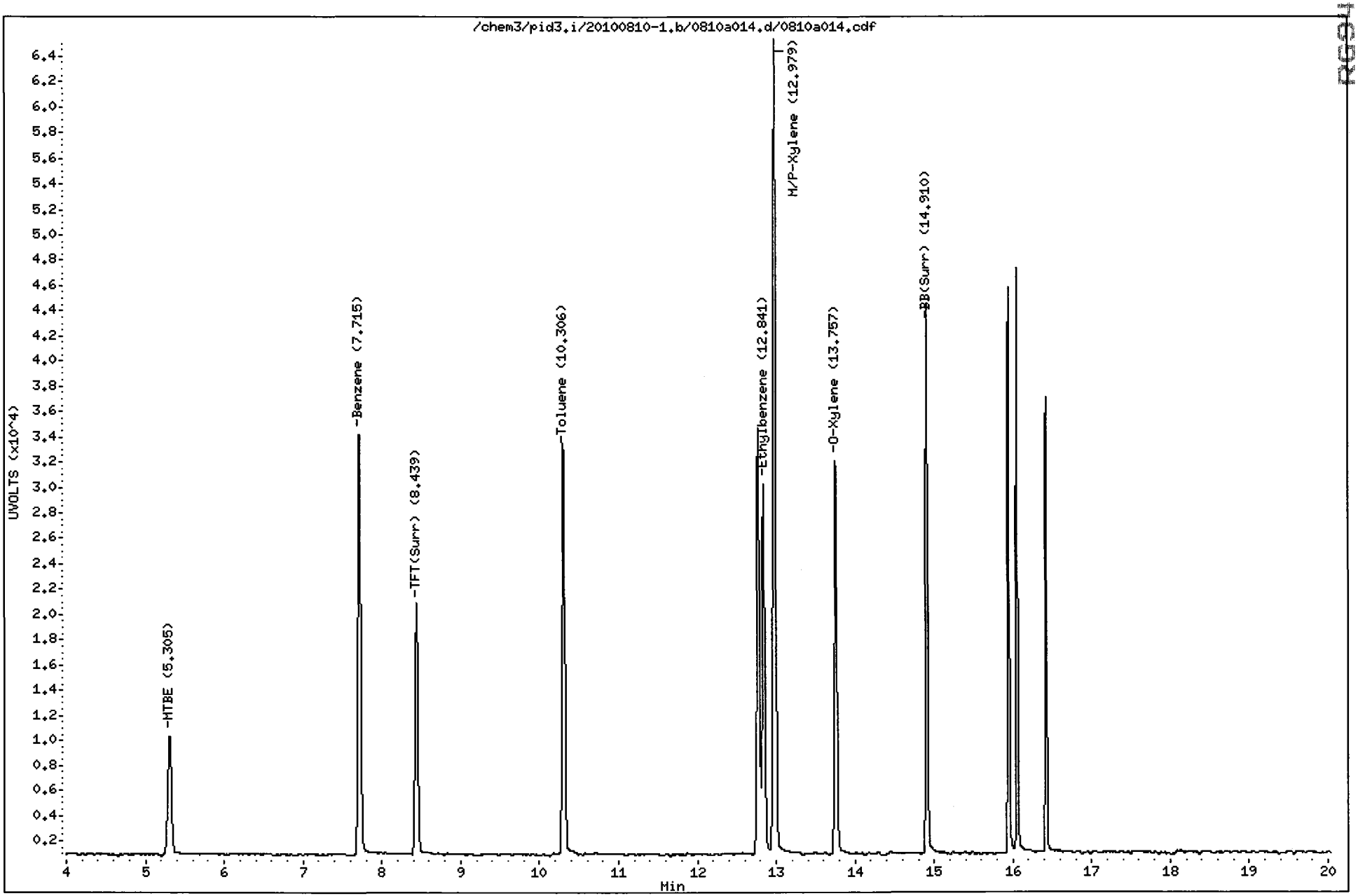
Instrument: pid3.i

Operator: MH

Column phase: RTX 502-2 PID

Column diameter: 0.18

RC91:61199



MH 8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a015.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a015.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GCAL 2
Client ID:
Injection Date: 10-AUG-2010 12:08
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.031	7134	85754	99.1	TFT(Surr)
14.911	0.023	4391	35634	102.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	2024038	2.445 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	4003374	2.406 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	2690340	2.377 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2137108	2.423 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.437	0.030	20099	91.4	TFT(Surr)
14.908	0.022	43244	94.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.716	0.027	7078	5.35	Benzene
10.305	0.034	94374	71.50	Toluene
12.839	0.035	27112	21.82	Ethylbenzene
12.981	0.039	106476	79.07	M/P-Xylene
13.756	0.031	43660	33.98	O-Xylene
5.310	0.018	83069	233.47	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a015.d

Date : 10-AUG-2010 12:08

Client ID:

Sample Info: GCAL 2

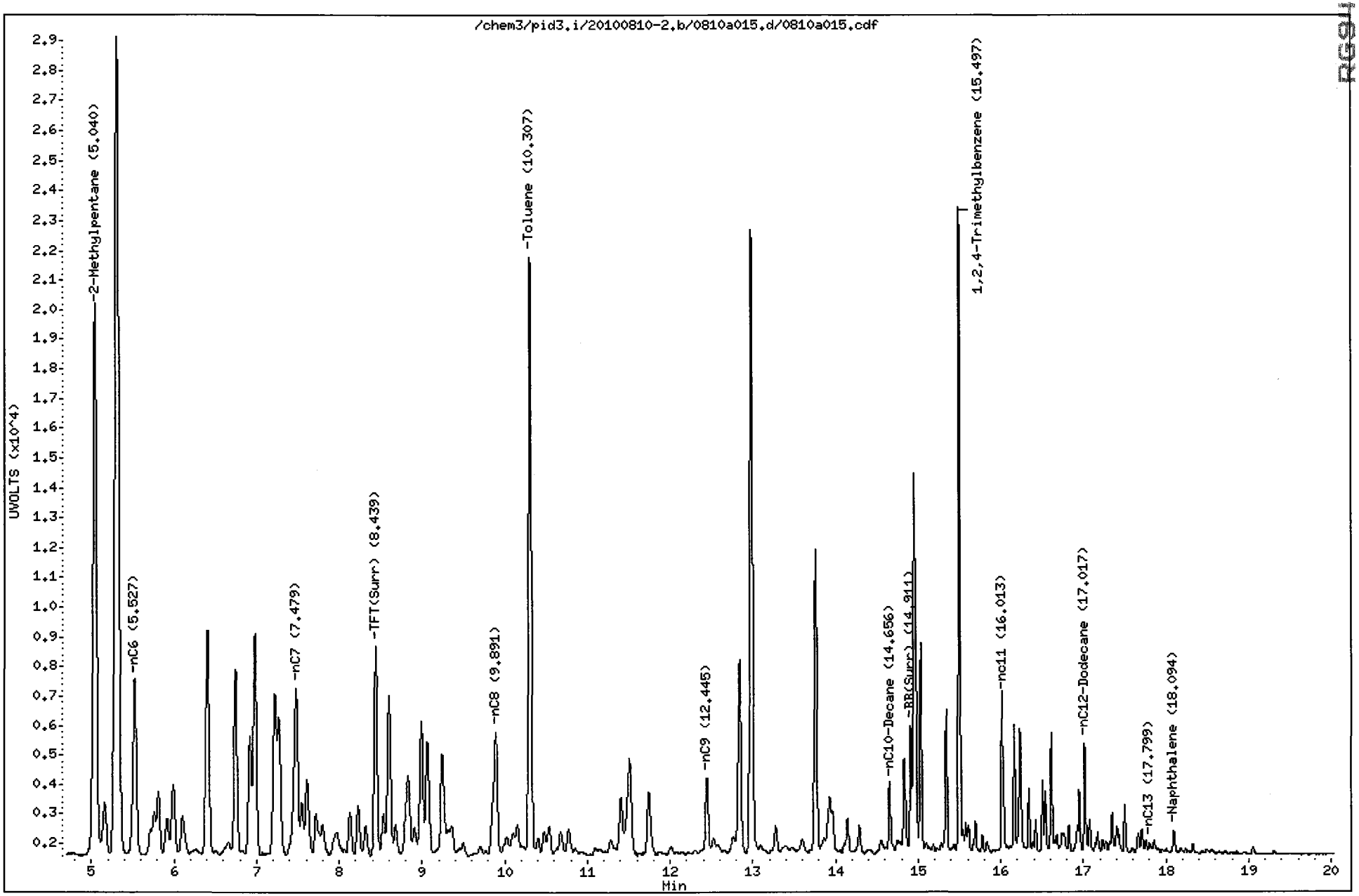
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG91-01591



Data File: /chem3/pid3.i/20100810-1.b/0810a015.d

Date : 10-AUG-2010 12:08

Client ID:

Sample Info: GCAL 2

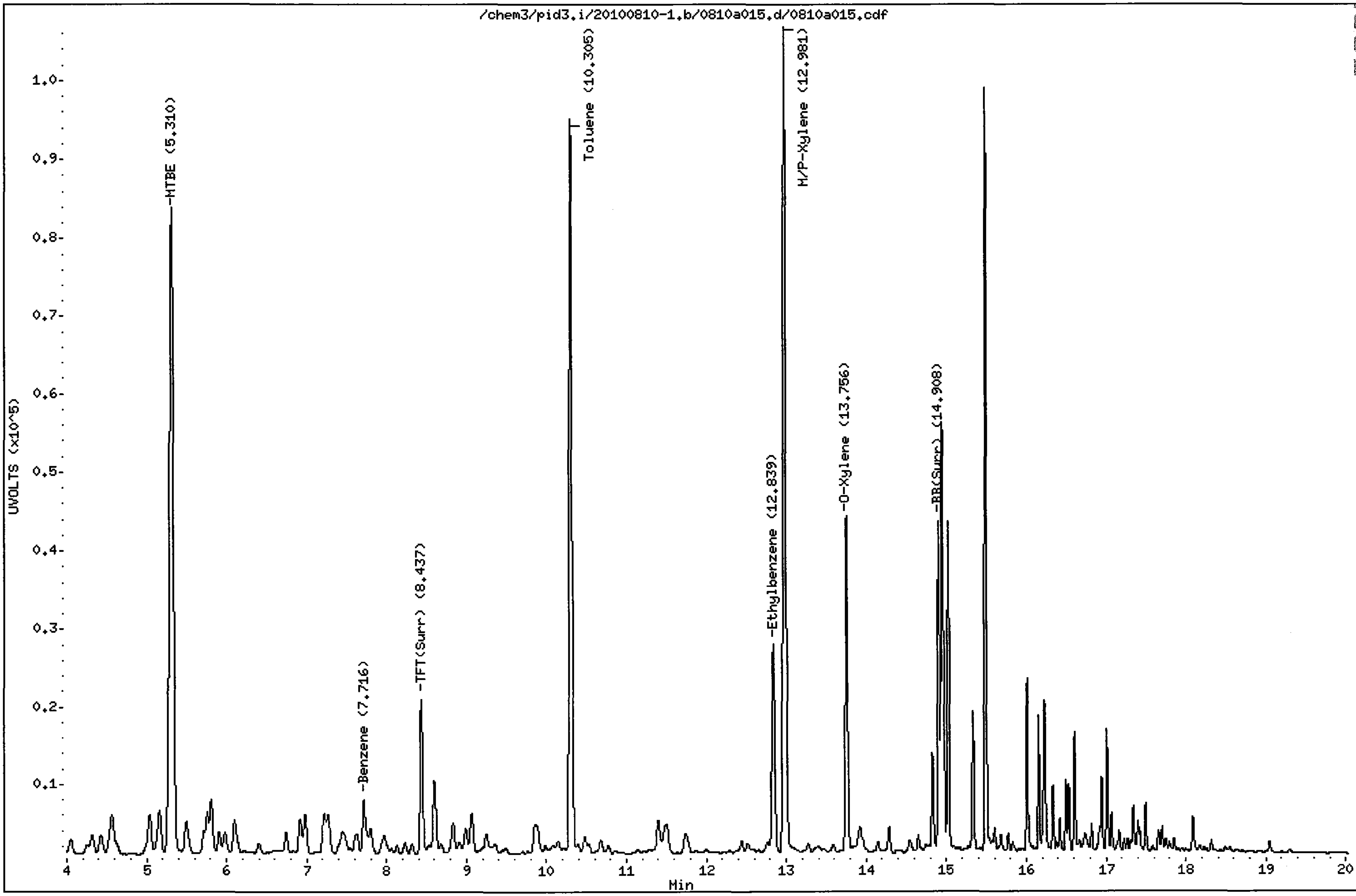
Column phase: RTX 502-2 PID

Page 1

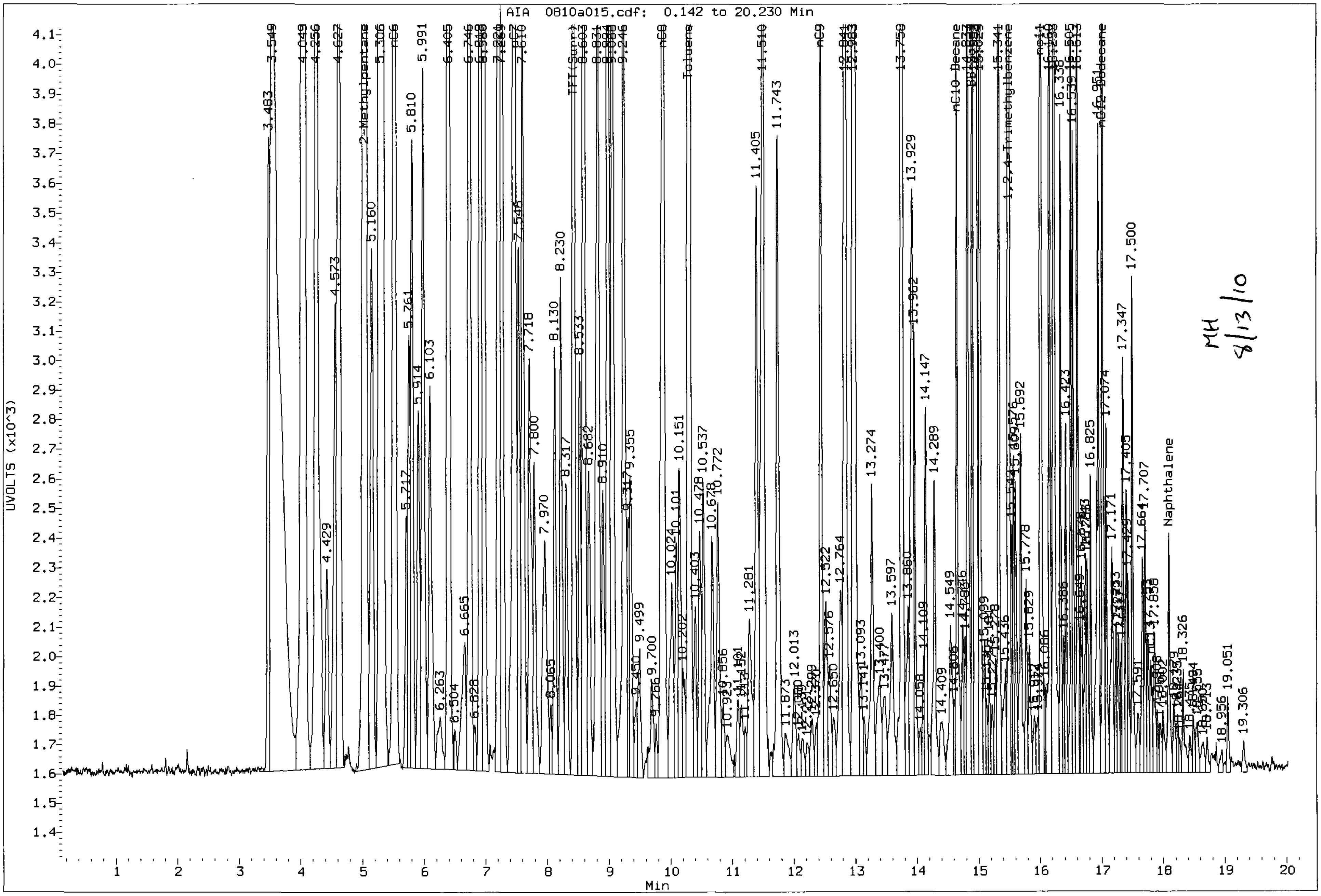
Instrument: pid3.i

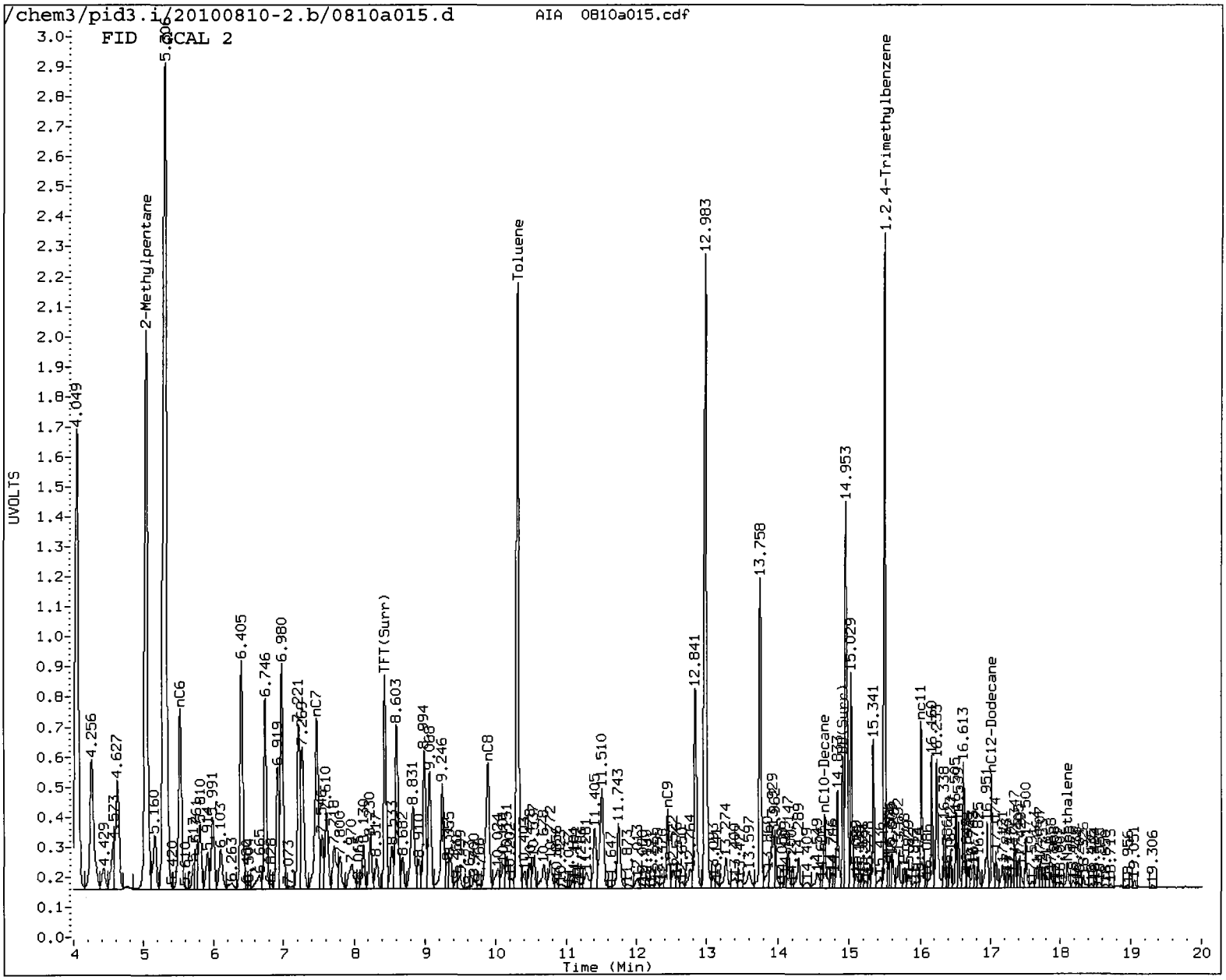
Operator: MH

Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-2.b/0810a015.d/0810a015.cdf
Injection Date: 10-AUG-2010 12:08
Instrument: pid3.i
Client Sample ID:





MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a016.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a016.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94E
Client ID: MW13-18.5-19.5-0802
Injection Date: 10-AUG-2010 12:33
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.032	7060	84378	98.1	TFT(Surr)
14.911	0.024	4303	35523	99.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	5118	0.006
8015B 2MP-TMB	(4.93 to 15.58)	1664107	6953	0.004
AK101 nC6-nC10	(5.41 to 14.53)	1131784	5395	0.005
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	10692	0.012

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.031	20084	91.4	TFT(Surr)
14.909	0.023	42869	94.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a016.d

Date : 10-AUG-2010 12:33

Client ID: MW13-18.5-19.5-0802

Sample Info: RG94E

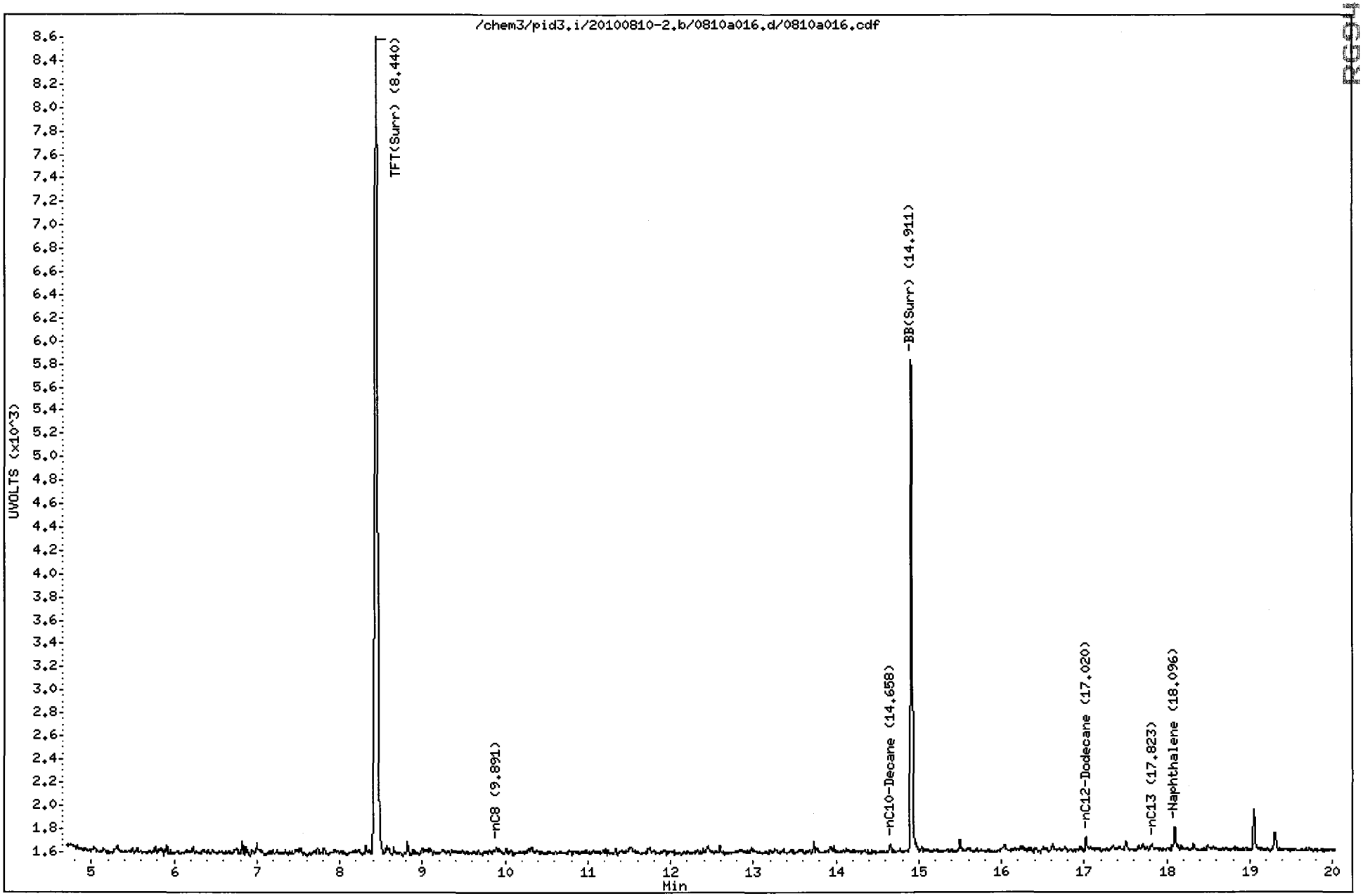
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94 : 01506



Data File: /chem3/pid3.i/20100810-1.b/0810a016.d

Date : 10-AUG-2010 12:33

Client ID: MW13-18.5-19.5-0802

Sample Info: RG94E

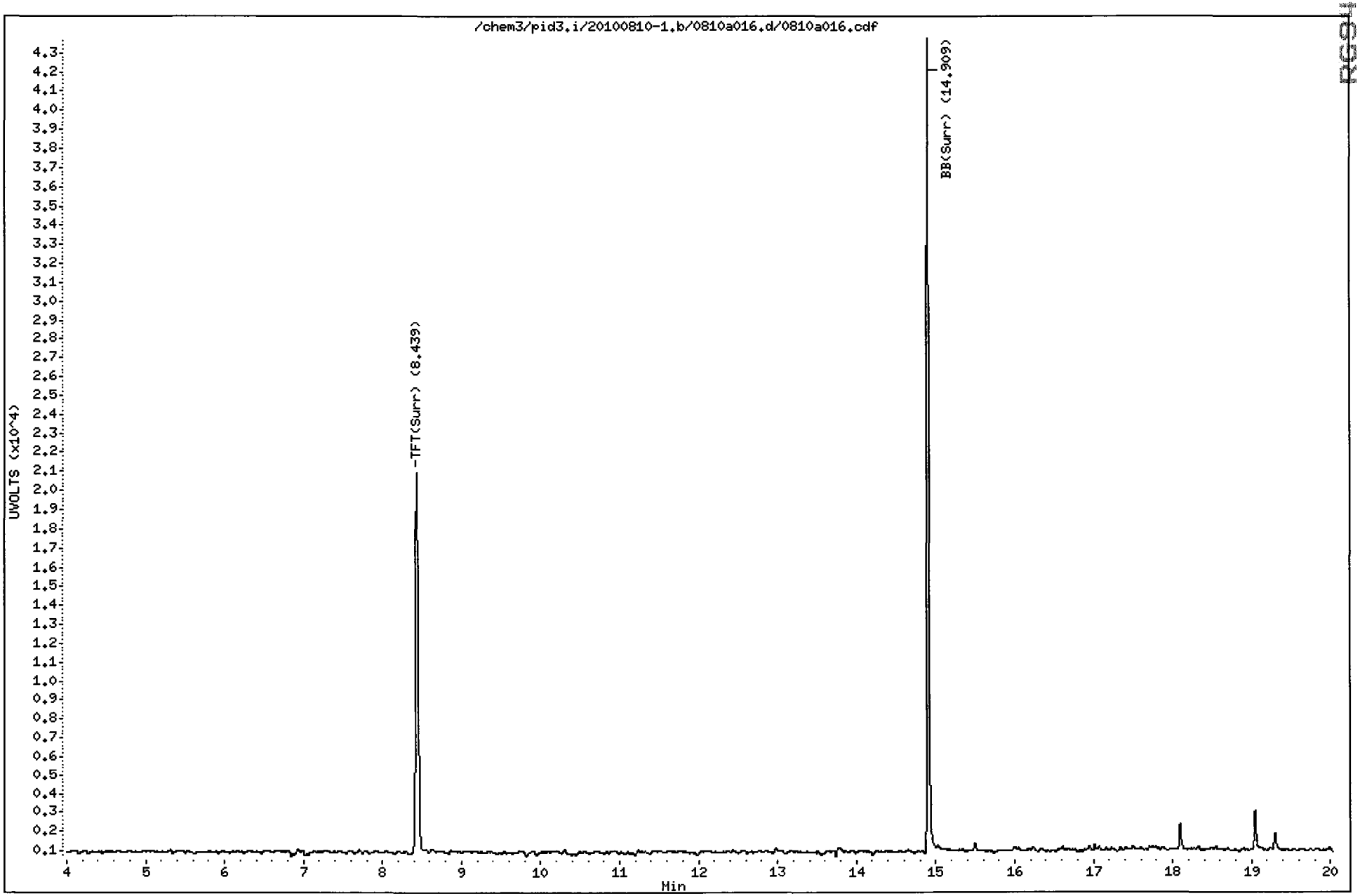
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94-015G7



M 8/13/

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a017.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a017.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94F
Client ID: MW13-18.5-19.5-0802
Injection Date: 10-AUG-2010 12:57
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.444	0.035	6915	81766	96.1	TFT(Surr)
14.912	0.025	4203	33911	97.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1135	0.001
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1078	0.001
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1078	0.001
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	1135	0.001

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.442	0.035	19825	90.2	TFT(Surr)
14.911	0.025	41859	91.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a017.d

Date : 10-AUG-2010 12:57

Client ID: MW13-18.5-19.5-0802

Sample Info: RG94F

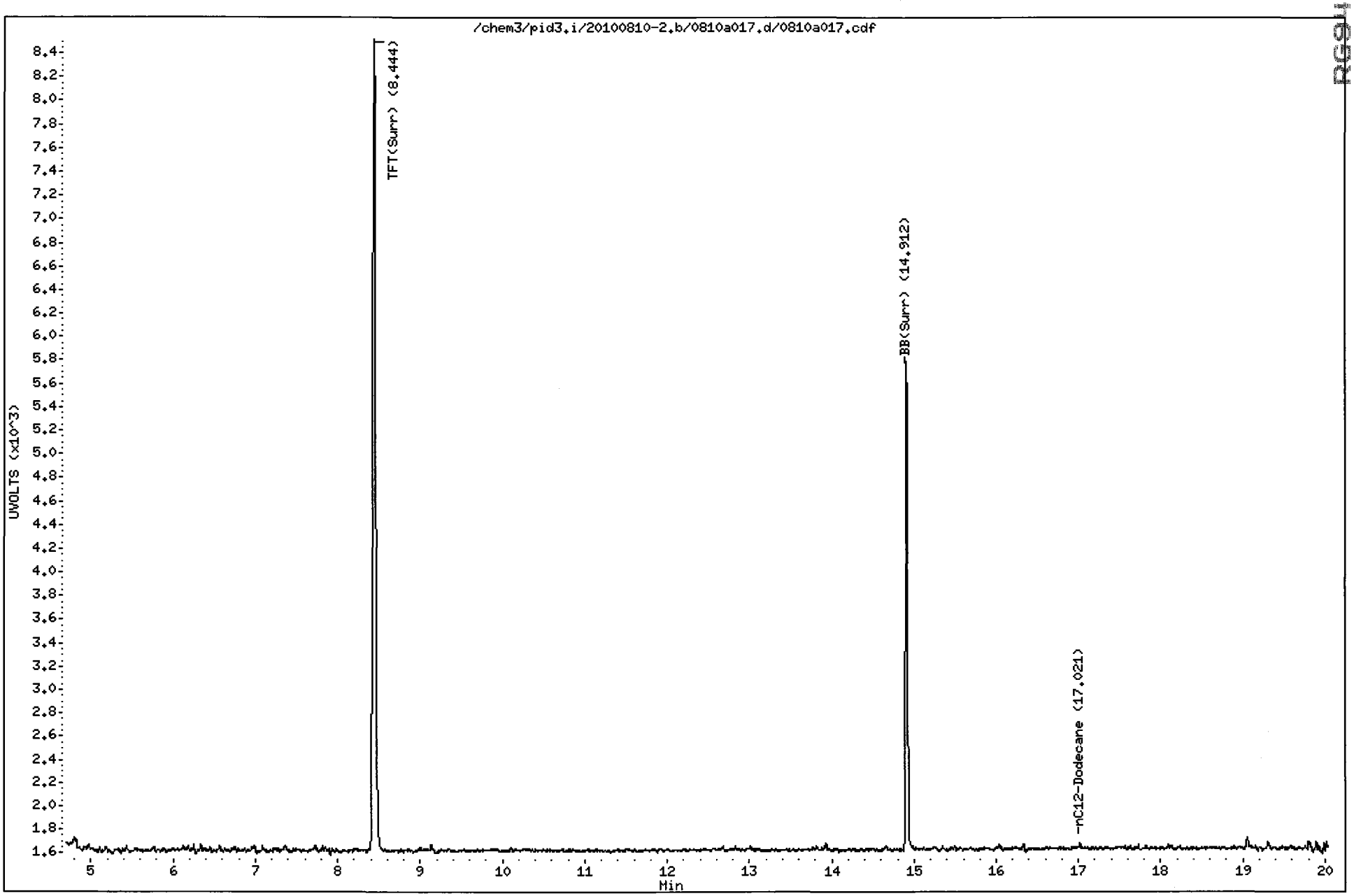
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94: 61593



Data File: /chem3/pid3.i/20100810-1.b/0810a017.d

Date : 10-AUG-2010 12:57

Client ID: MW13-18.5-19.5-0802

Sample Info: RG94F

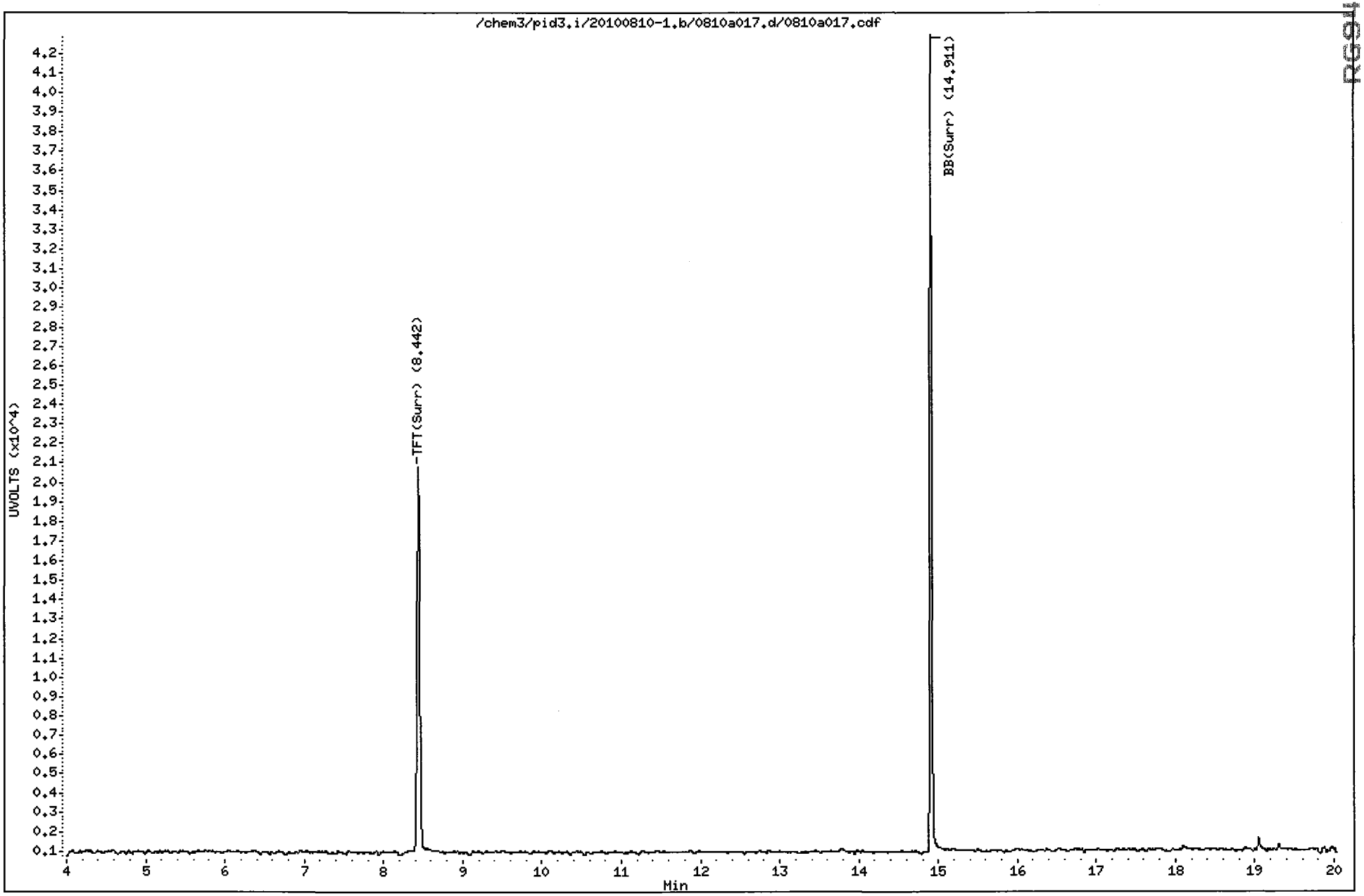
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94-081519



8/13/

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a018.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a018.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94G
Client ID: MW12-5.5-7.5-080210
Injection Date: 10-AUG-2010 13:22
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.032	6961	82146	96.7	TFT(Surr)
14.911	0.024	4210	33917	97.8	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	2548	0.003
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1493	0.001
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1493	0.001
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2548	0.003

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.031	19545	88.9	TFT(Surr)
14.909	0.023	42151	92.5	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a018.d

Date : 10-AUG-2010 13:22

Client ID: MW12-5.5-7.5-080210

Sample Info: RG94G

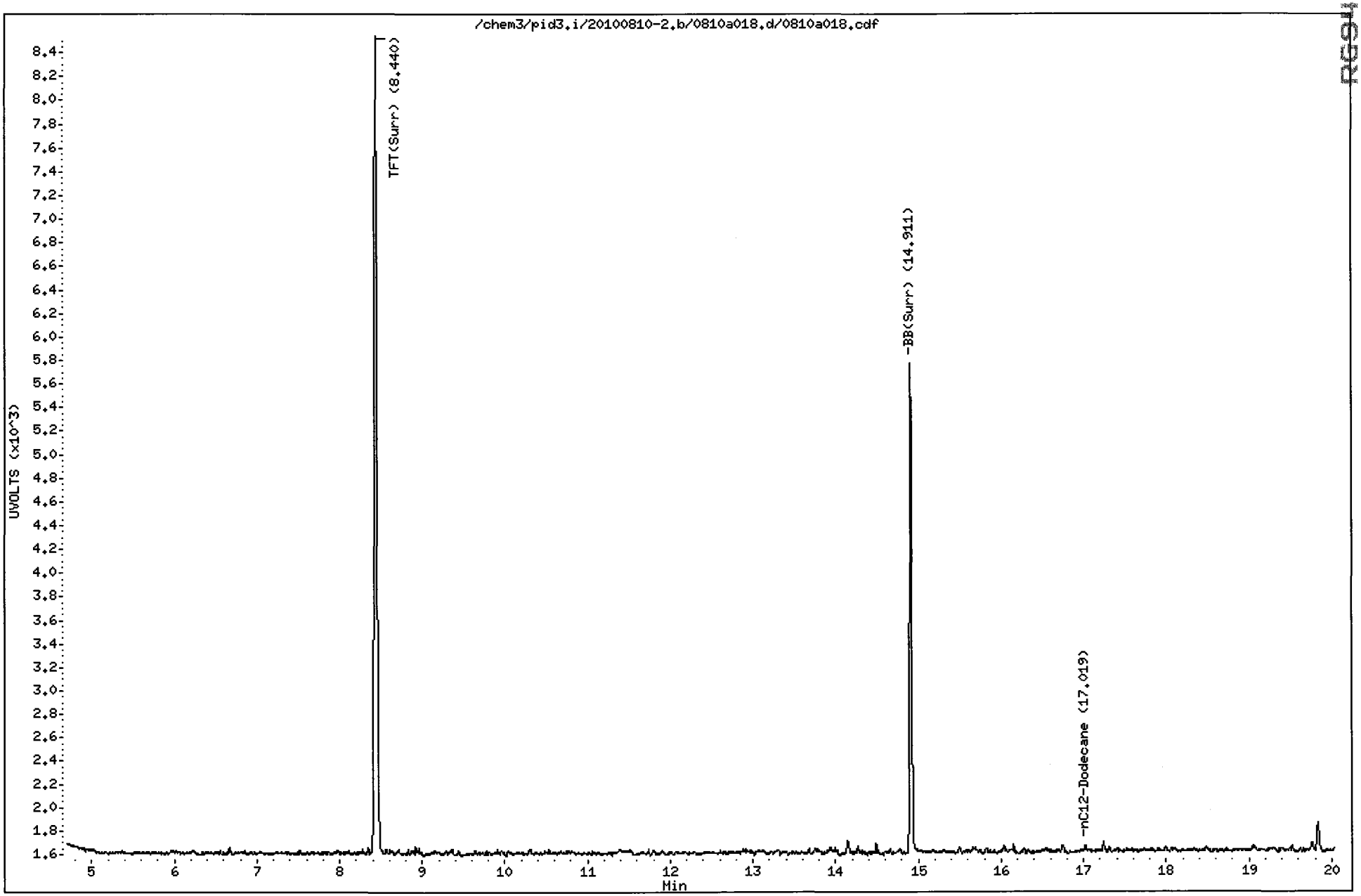
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94-081512



Data File: /chem3/pid3.i/20100810-1.b/0810a018.d

Date : 10-AUG-2010 13:22

Client ID: MW12-5.5-7.5-080210

Sample Info: RG94G

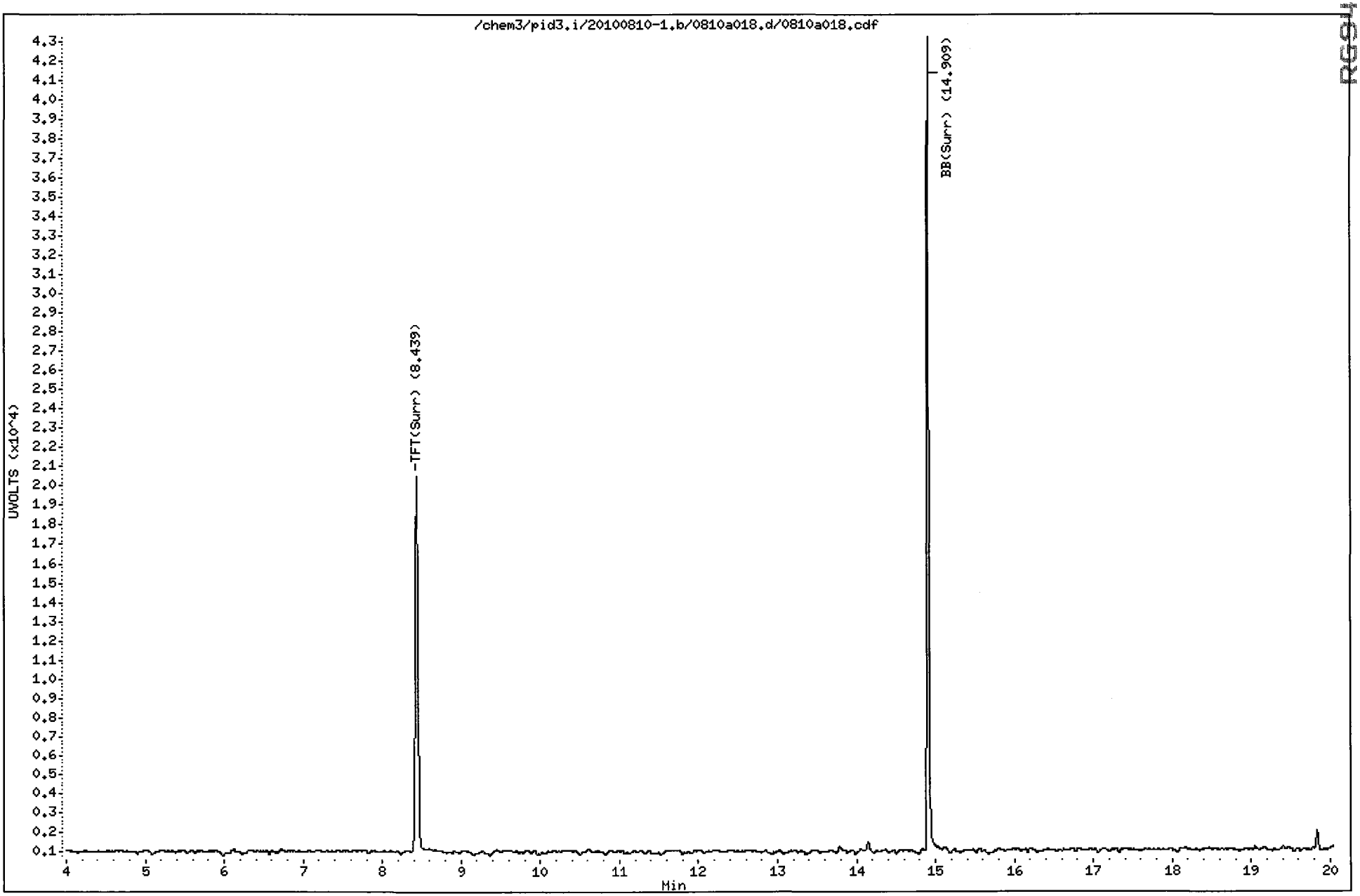
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94-091513



8/13/

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a019.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a019.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94H
Client ID: MW12-8-9.5-080210
Injection Date: 10-AUG-2010 13:46
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.031	6957	81673	96.7	TFT(Surr)
14.911	0.023	4227	34111	98.2	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	13625	0.016
8015B 2MP-TMB	(4.93 to 15.58)	1664107	10471	0.006
AK101 nC6-nC10	(5.41 to 14.53)	1131784	10471	0.009
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	13625	0.015

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.438	0.031	19694	89.6	TFT(Surr)
14.909	0.023	42377	93.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a019.d

Date : 10-AUG-2010 13:46

Client ID: MW12-8-9.5-080210

Sample Info: RG94H

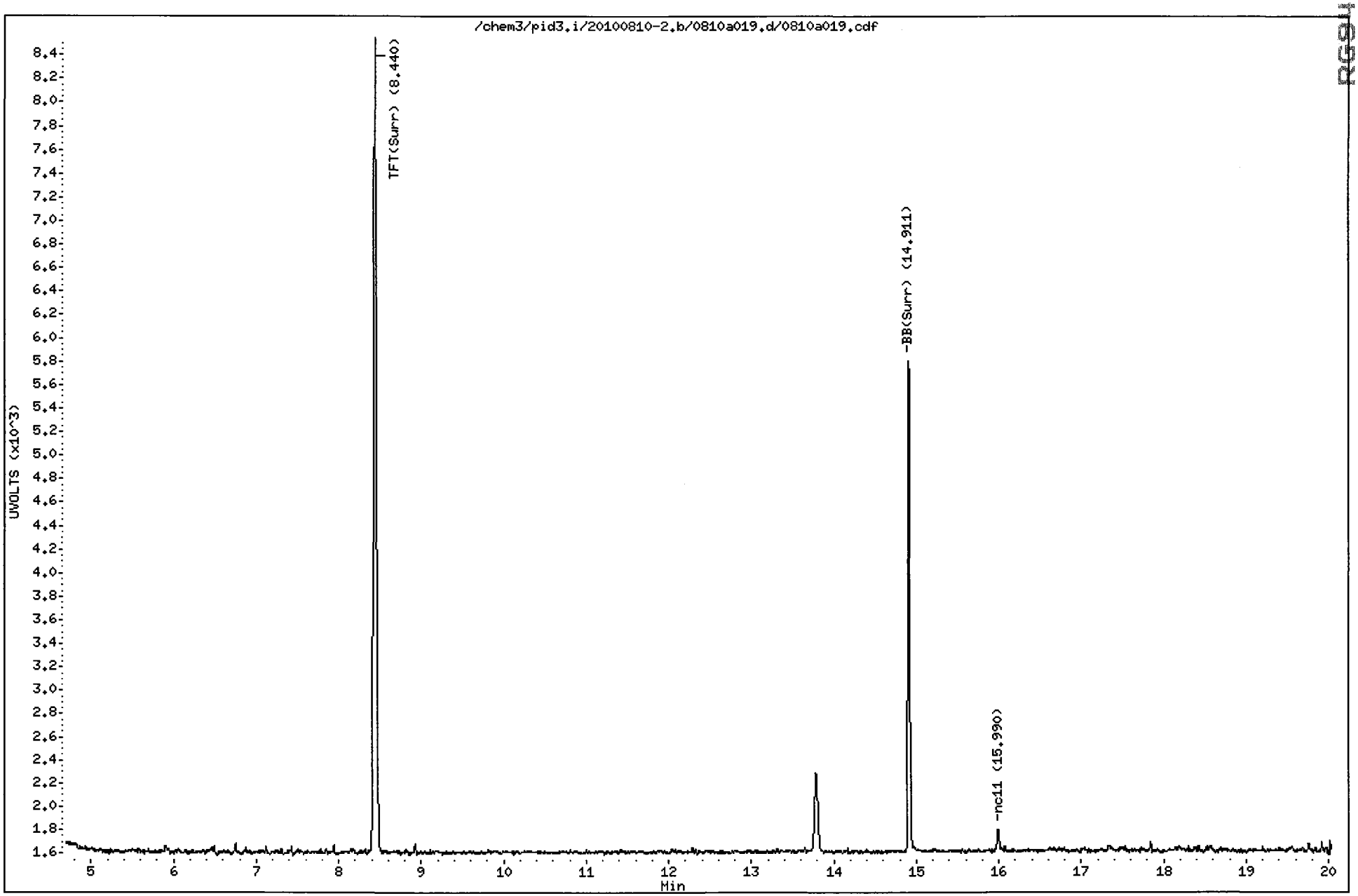
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94H-01515



Data File: /chem3/pid3.i/20100810-1.b/0810a019.d

Date : 10-AUG-2010 13:46

Client ID: MW12-8-9.5-080210

Sample Info: RG94H

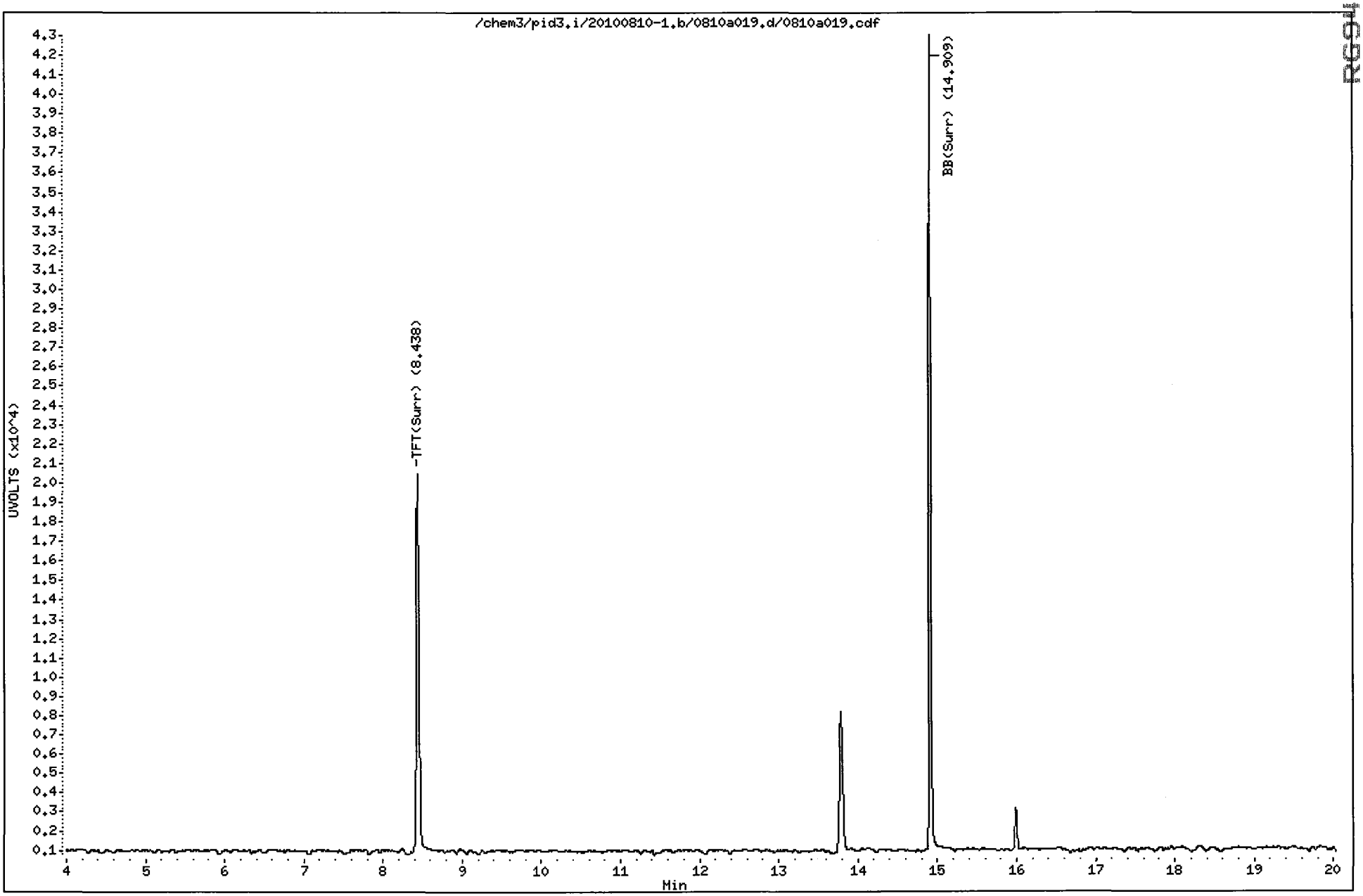
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94H-091516



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a020.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a020.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94HMS
Client ID: MW12-8-9.5-0802 MS
Injection Date: 10-AUG-2010 14:11
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.032	6915	82006	96.1	TFT(Surr)
14.910	0.023	4202	33794	97.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	769000	0.929 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1552642	0.933 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1047773	0.926 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	817176	0.926 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.032	19603	89.2	TFT(Surr)
14.909	0.023	42148	92.5	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.717	0.028	2858	2.16	Benzene
10.306	0.034	36653	27.77	Toluene
12.840	0.036	10549	8.49	Ethylbenzene
12.980	0.038	40777	30.28	M/P-Xylene
13.759	0.035	20119	15.66	O-Xylene
5.309	0.017	32768	92.10	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a020.d

Date : 10-AUG-2010 14:11

Client ID: MW12-8-9.5-0802 MS

Sample Info: RG94HMS

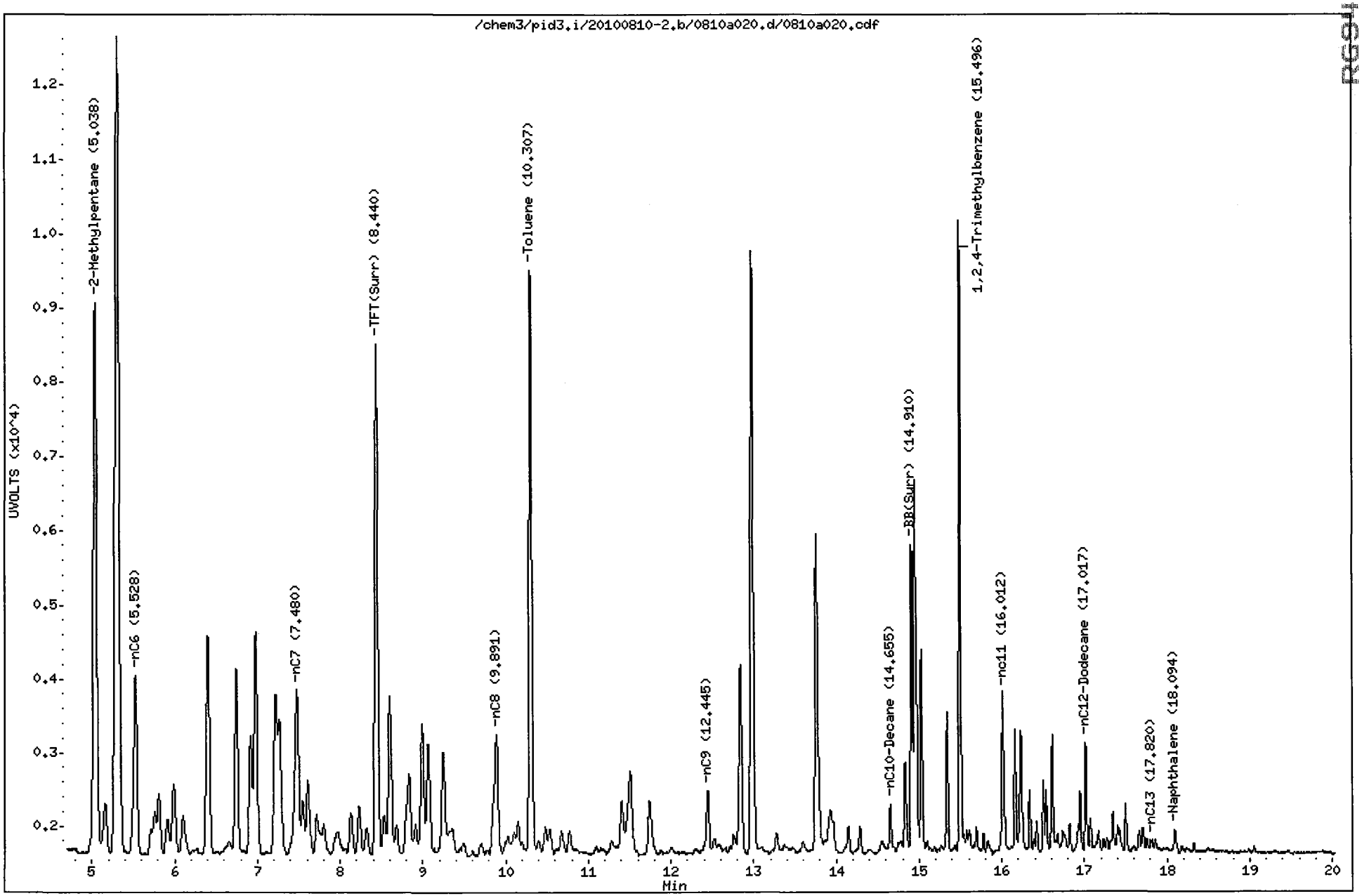
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94HMS01518



Data File: /chem3/pid3.i/20100810-1.b/0810a020.d

Date : 10-AUG-2010 14:11

Client ID: MW12-8-9.5-0802 MS

Sample Info: RG94HMS

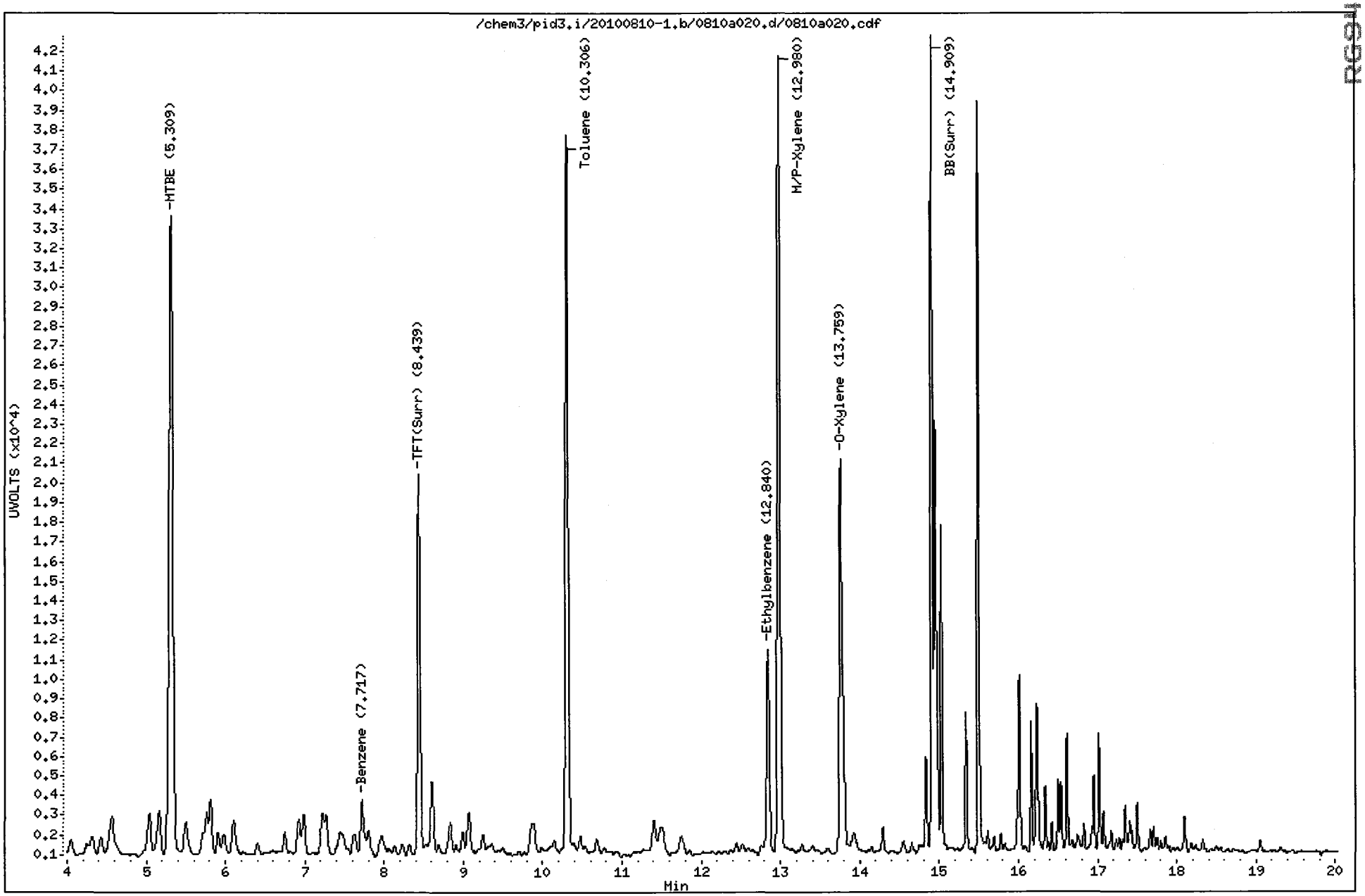
Column phase: RTX 502-2 PID

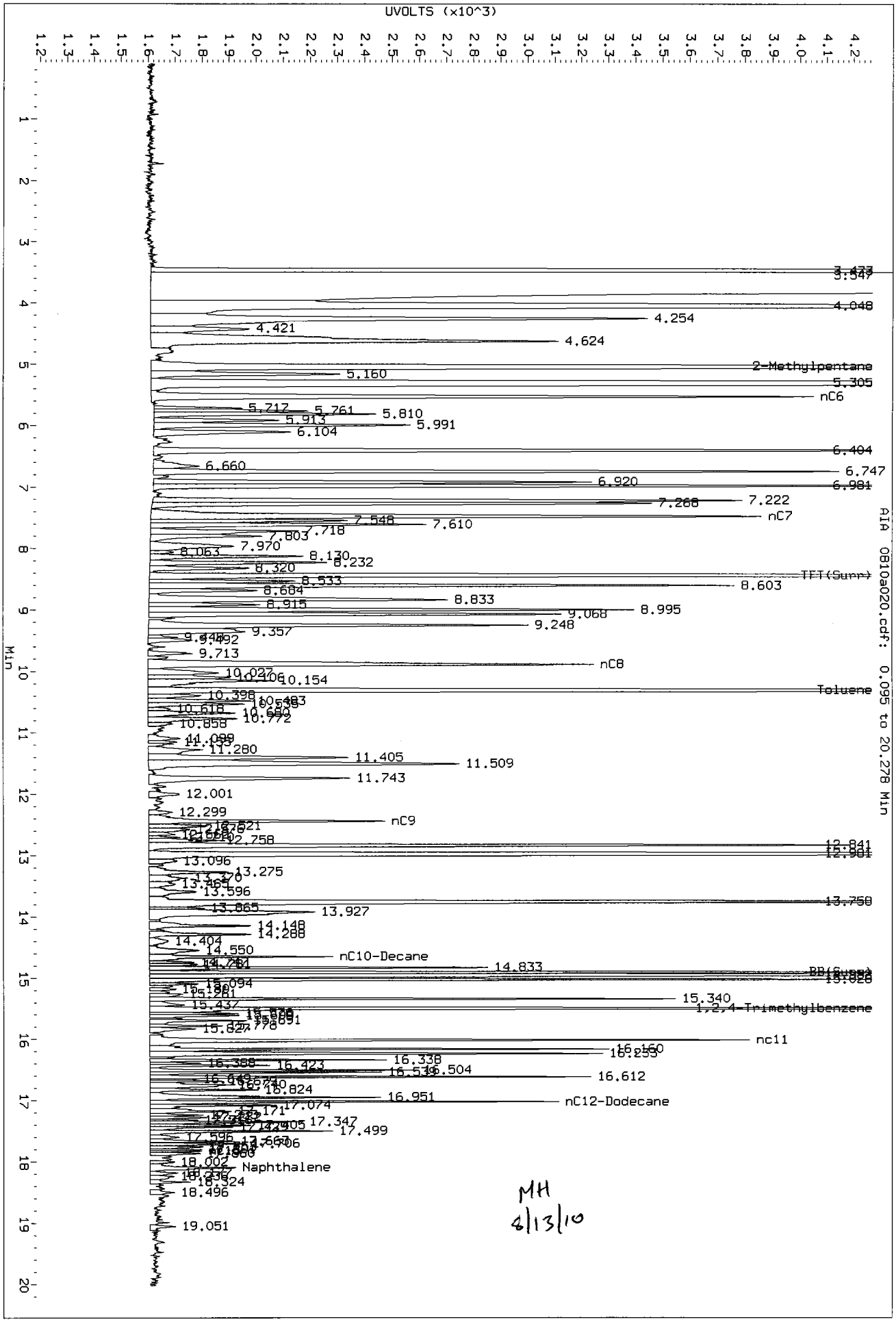
Instrument: pid3.i

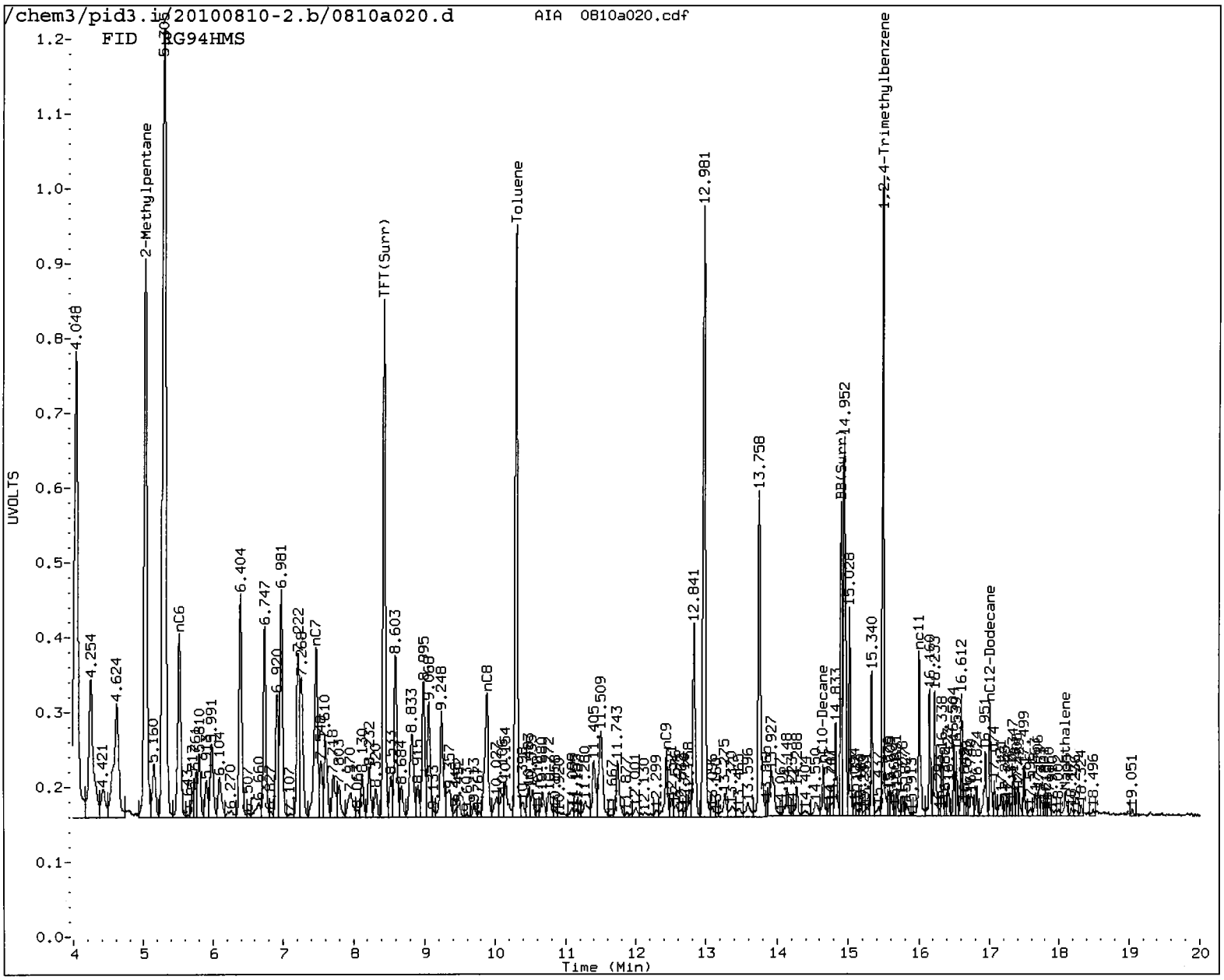
Operator: MH

Column diameter: 0.18

RG94-091519




UVOLTS (x10^3)
Min
AIA 0810a020.cdf: 0.095 to 20.278 Min
Data File: /chem3/pid3.i/20100810-2.b/0810a020.d/0810a020.cdf
Injection Date: 10-AUG-2010 14:11
Instrument: pid3.i
Client Sample ID: MW12-8-9.5-0802 MS
3.547
4.048
4.254
4.421
4.624
2-Methylpentane
5.160
5.305
nC6
5.717
5.761
5.810
5.913
5.991
6.104
6.404
6.660
6.747
6.920
6.981
7.268
7.222
nC7
7.548
7.610
7.718
7.803
7.970
8.063
8.130
8.232
8.320
TFT(Surr)
8.533
8.603
8.684
8.833
8.915
8.995
9.068
9.248
9.357
9.492
9.713
nC8
10.027
10.154
Toluene
10.398
10.483
10.618
10.772
10.858
11.280
11.405
11.509
11.743
12.001
12.299
nC9
12.258
12.841
13.096
13.275
13.596
13.750
13.865
13.927
14.148
14.404
14.550
nC10-Decane
14.833
15.340
1,2,4-Trimethylbenzene
nc11
16.160
16.255
16.338
16.423
16.504
16.612
16.824
16.951
nC12-Dodecane
17.074
17.347
17.499
18.002
Naphthalene
18.324
18.496
19.051
MH
6/13/10



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

M 8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a021.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a021.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94HMSD
Client ID: MW12-8-9.5-0802 MSD
Injection Date: 10-AUG-2010 14:36
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.439	0.031	7177	85527	99.7	TFT(Surr)
14.911	0.023	4439	35682	103.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	806724	0.975 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	1593006	0.957 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	1072014	0.947 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	860424	0.976 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.437	0.030	20958	95.3	TFT(Surr)
14.908	0.022	45598	100.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.715	0.027	2867	2.17	Benzene
10.304	0.033	38629	29.27	Toluene
12.839	0.034	11134	8.96	Ethylbenzene
12.979	0.036	42977	31.91	M/P-Xylene
13.758	0.034	21595	16.81	O-Xylene
5.307	0.016	34563	97.14	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a021.d

Date : 10-AUG-2010 14:36

Client ID: MW12-8-9.5-0802 MSD

Sample Info: RG94HMSD

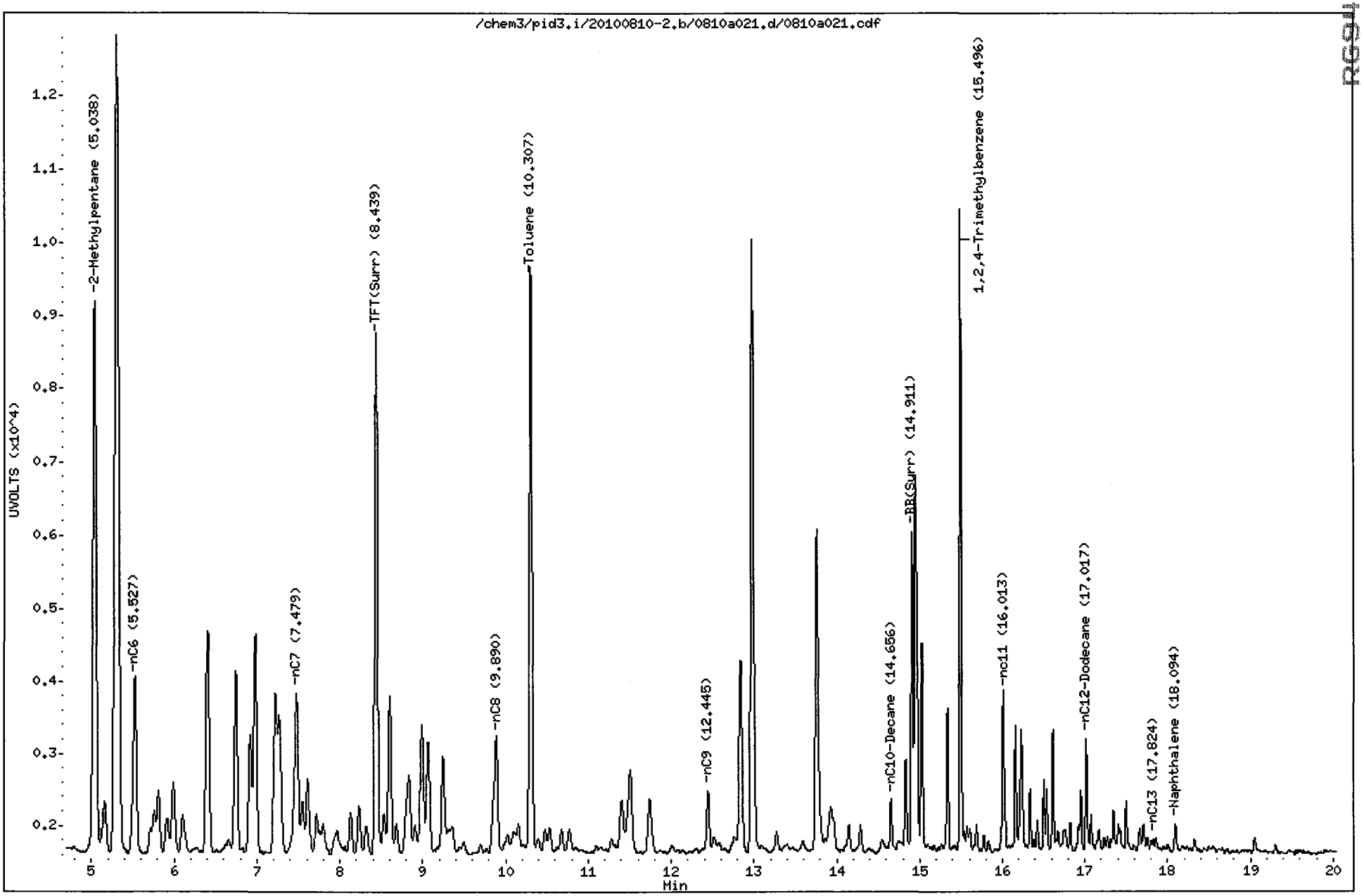
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94: 01523



Data File: /chem3/pid3.i/20100810-1.b/0810a021.d

Date : 10-AUG-2010 14:36

Client ID: MW12-8-9.5-0802 MSD

Sample Info: RG94HMSD

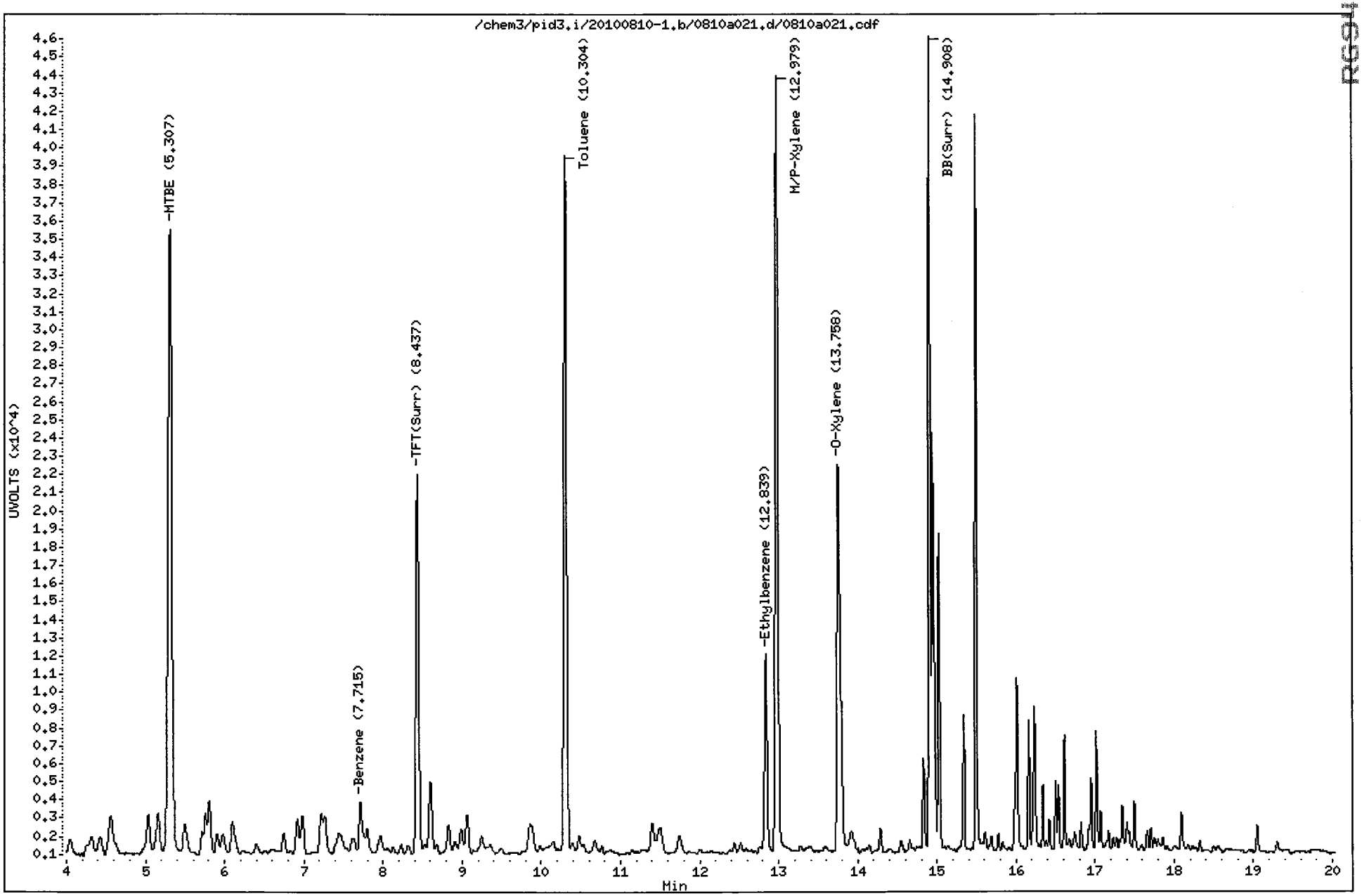
Column phase: RTX 502-2 PID

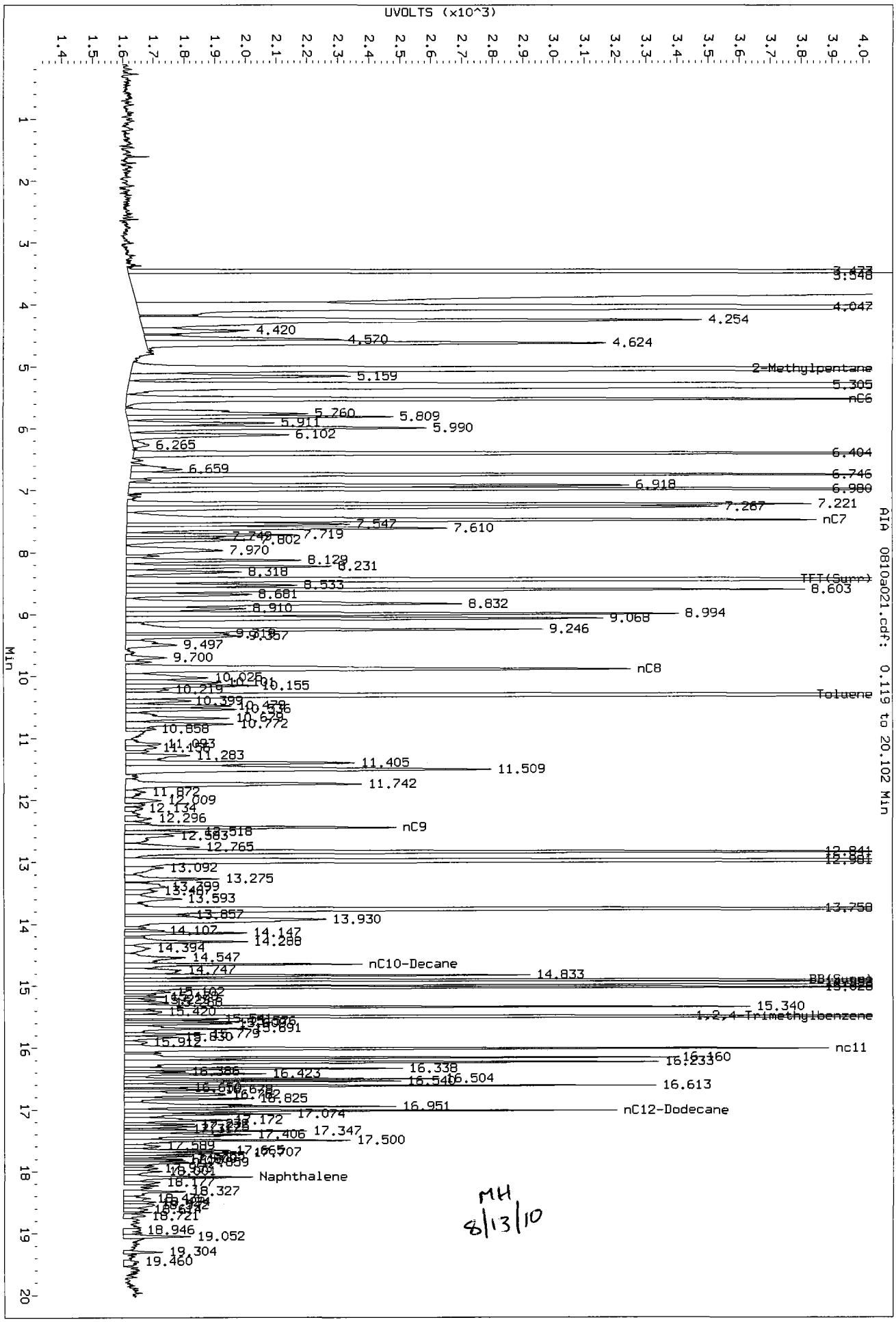
Instrument: pid3.i

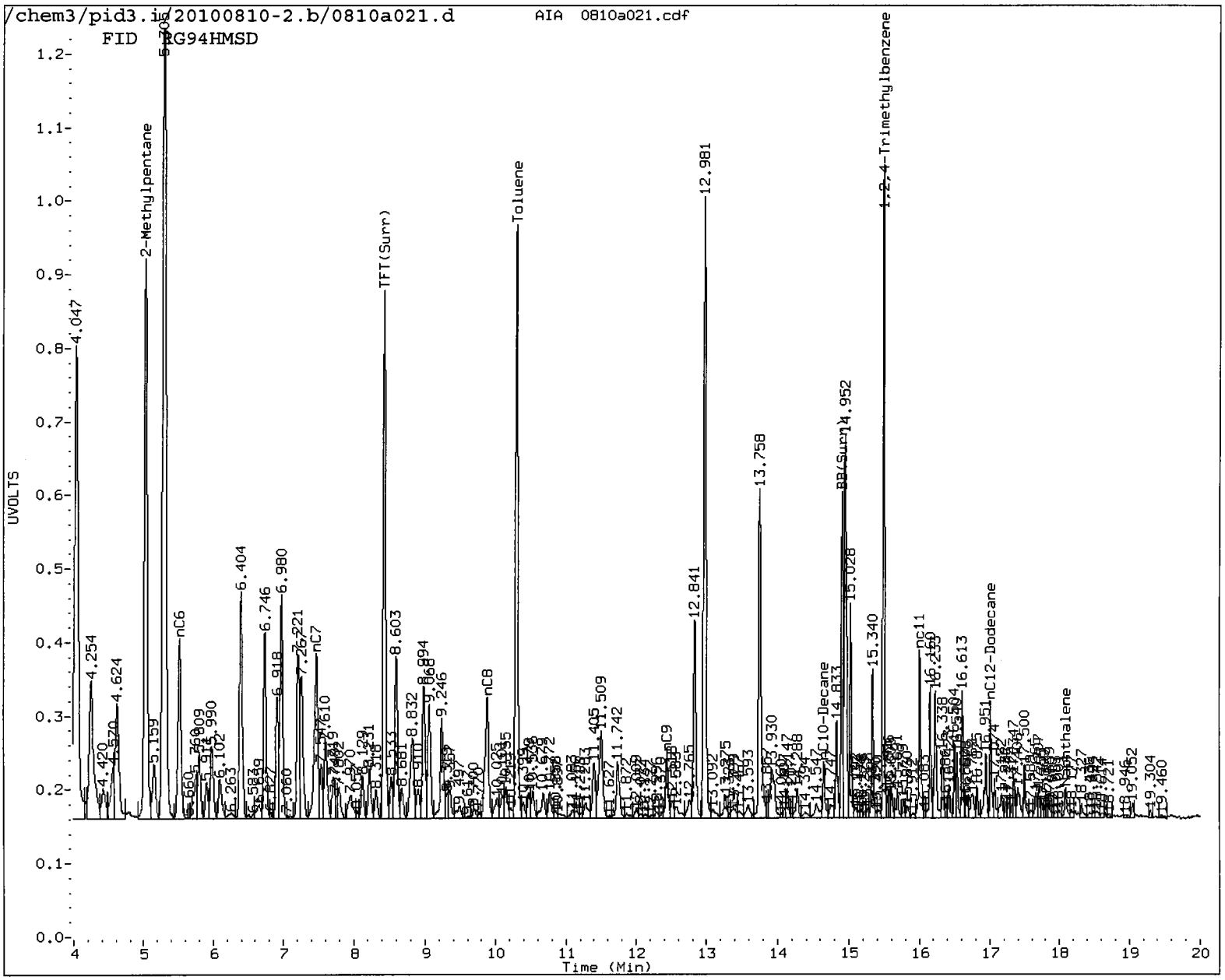
Operator: MH

Column diameter: 0.18

RG94-061521




UVOLTS (x10^3)
Min
AIA 0810a021.cdf: 0.119 to 20.102 Min
Data File: /chem3/pid3.i/20100810-2.b/0810a021.d/0810a021.cdf
Injection Date: 10-AUG-2010 14:36
Instrument: pid3.i
Client Sample ID: MW12-8-9.5-0802 MSD
2-Methylpentane
nC6
nC7
Toluene
nC8
nC9
nC10-Decane
1,2,4-Trimethylbenzene
nc11
nC12-Dodecane
Naphthalene
3.473
3.548
4.047
4.254
4.420
4.570
4.624
5.159
5.305
5.260
5.809
5.911
5.990
6.102
6.265
6.404
6.659
6.746
6.918
6.980
7.267
7.221
7.547
7.610
7.719
7.802
7.970
8.129
8.231
8.318
TFT(Surr)
8.533
8.603
8.681
8.832
8.910
8.994
9.068
9.246
9.357
9.497
9.700
10.025
10.155
10.219
10.399
10.429
10.536
10.679
10.772
10.858
11.093
11.283
11.405
11.509
11.742
11.872
12.009
12.134
12.296
12.518
12.765
12.841
12.981
13.092
13.275
13.399
13.467
13.593
13.750
13.857
13.930
14.102
14.147
14.288
14.394
14.547
14.747
14.833
15.102
15.340
15.420
15.912
16.160
16.233
16.338
16.386
16.423
16.504
16.613
16.825
16.951
17.074
17.172
17.347
17.406
17.500
17.707
18.177
18.327
18.721
18.946
19.052
19.304
19.460
MH
8/13/10



MANUAL INTEGRATION

☒ Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

8/13/

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a022.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a022.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94I
Client ID: MW12-10-11.5-080210
Injection Date: 10-AUG-2010 15:00
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.441	0.032	6908	81565	96.0	TFT(Surr)
14.911	0.023	4246	35250	98.6	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	32124	0.039
8015B 2MP-TMB	(4.93 to 15.58)	1664107	27818	0.017
AK101 nC6-nC10	(5.41 to 14.53)	1131784	26751	0.024
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	33517	0.038

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.032	20088	91.4	TFT(Surr)
14.909	0.023	43171	94.7	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a022.d

Date : 10-AUG-2010 15:00

Client ID: MW12-10-11.5-080210

Sample Info: RG94I

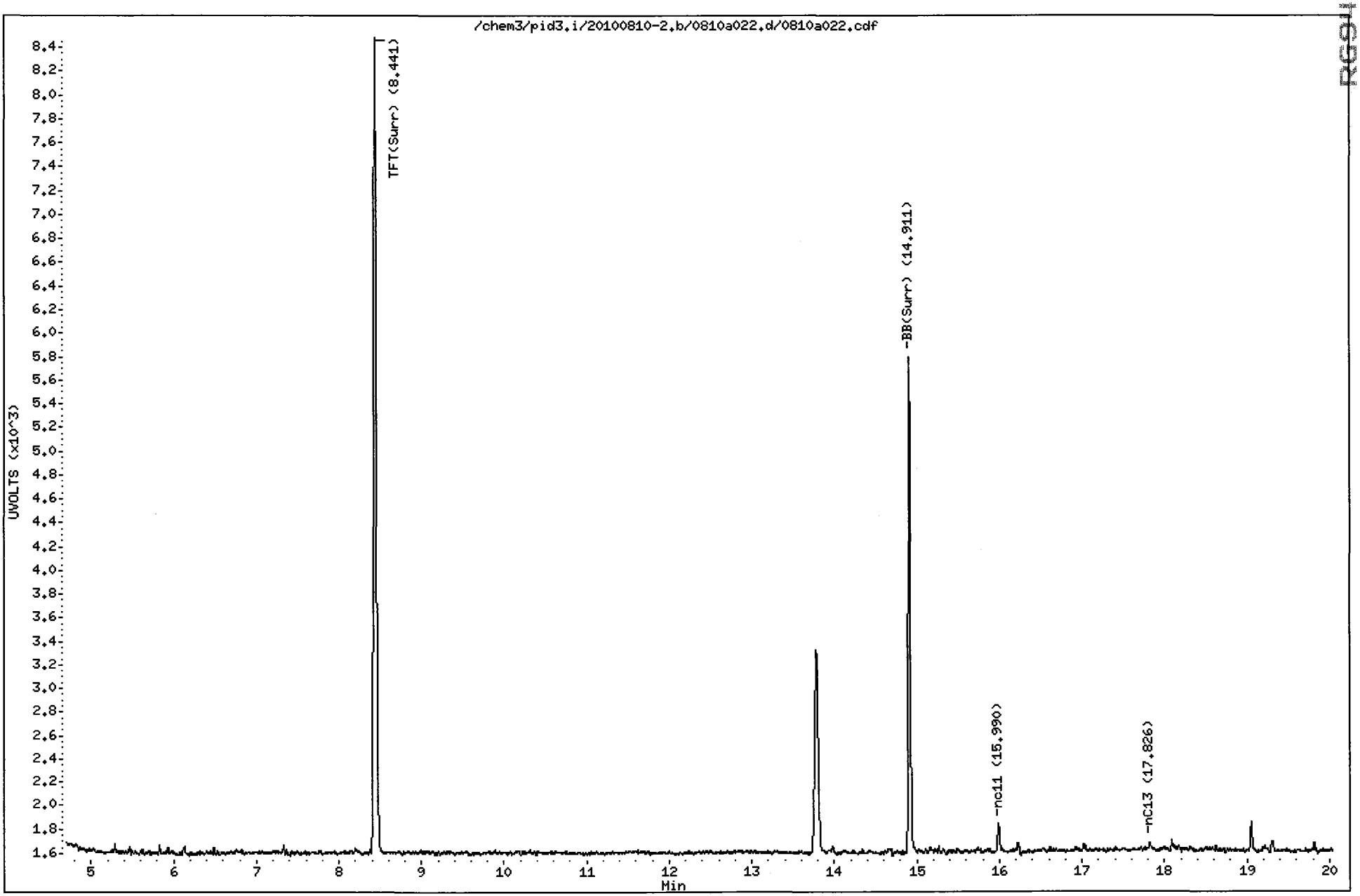
Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94I-01528



Data File: /chem3/pid3.i/20100810-1.b/0810a022.d

Date : 10-AUG-2010 15:00

Client ID: MW12-10-11.5-080210

Sample Info: RG94I

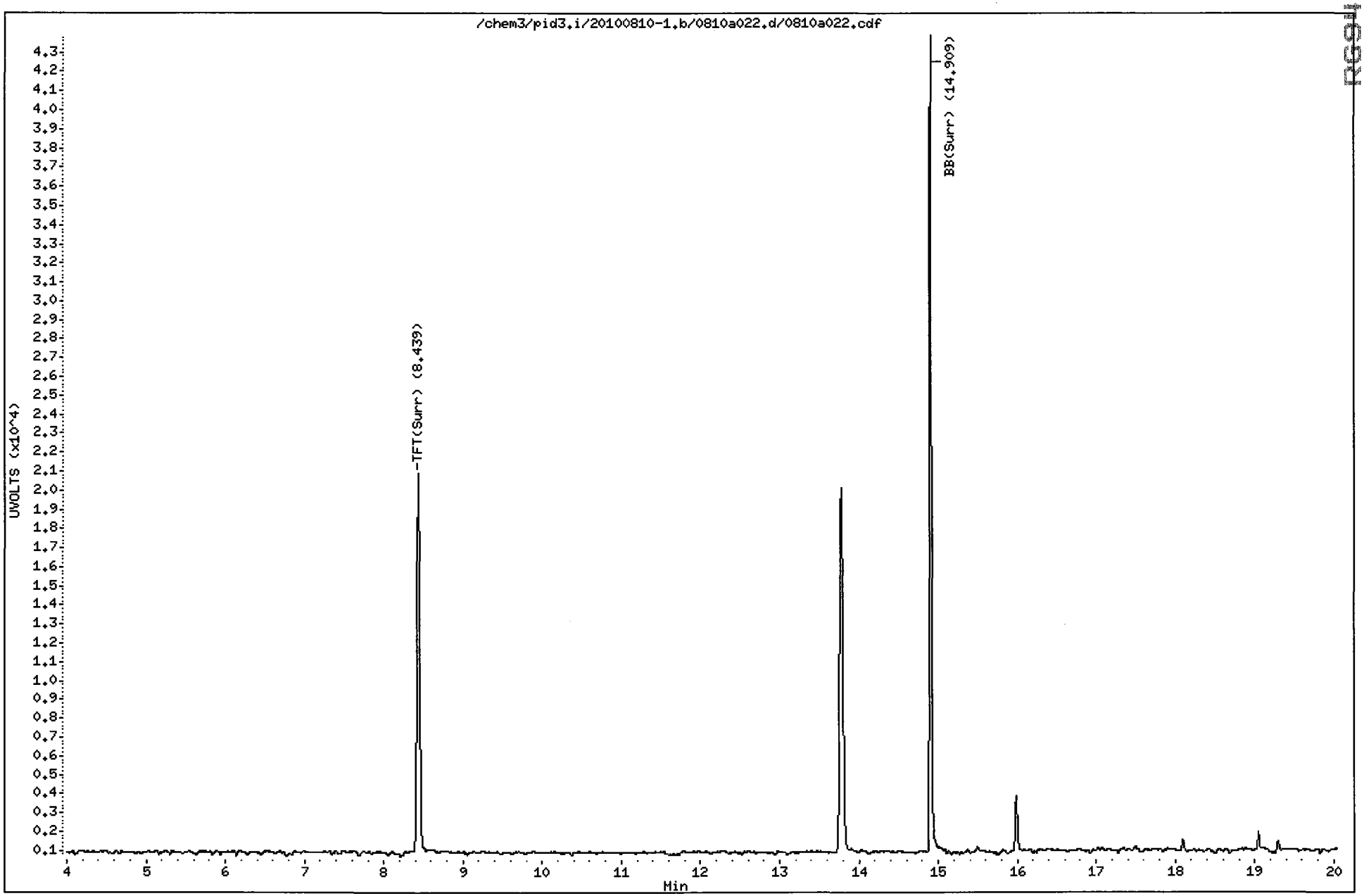
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94I-081529



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a023.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a023.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: RG94J
Client ID: MW12-17.5-19-080210
Injection Date: 10-AUG-2010 15:25
Matrix: SOIL
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.031	6936	82419	96.4	TFT(Surr)
14.911	0.024	4217	35493	97.9	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	14652	0.018
8015B 2MP-TMB	(4.93 to 15.58)	1664107	13411	0.008
AK101 nC6-nC10	(5.41 to 14.53)	1131784	11095	0.010
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	15673	0.018

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.031	20058	91.2	TFT(Surr)
14.910	0.024	43130	94.6	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a023.d

Page 1

Date : 10-AUG-2010 15:25

Client ID: MW12-17.5-19-080210

Instrument: pid3.i

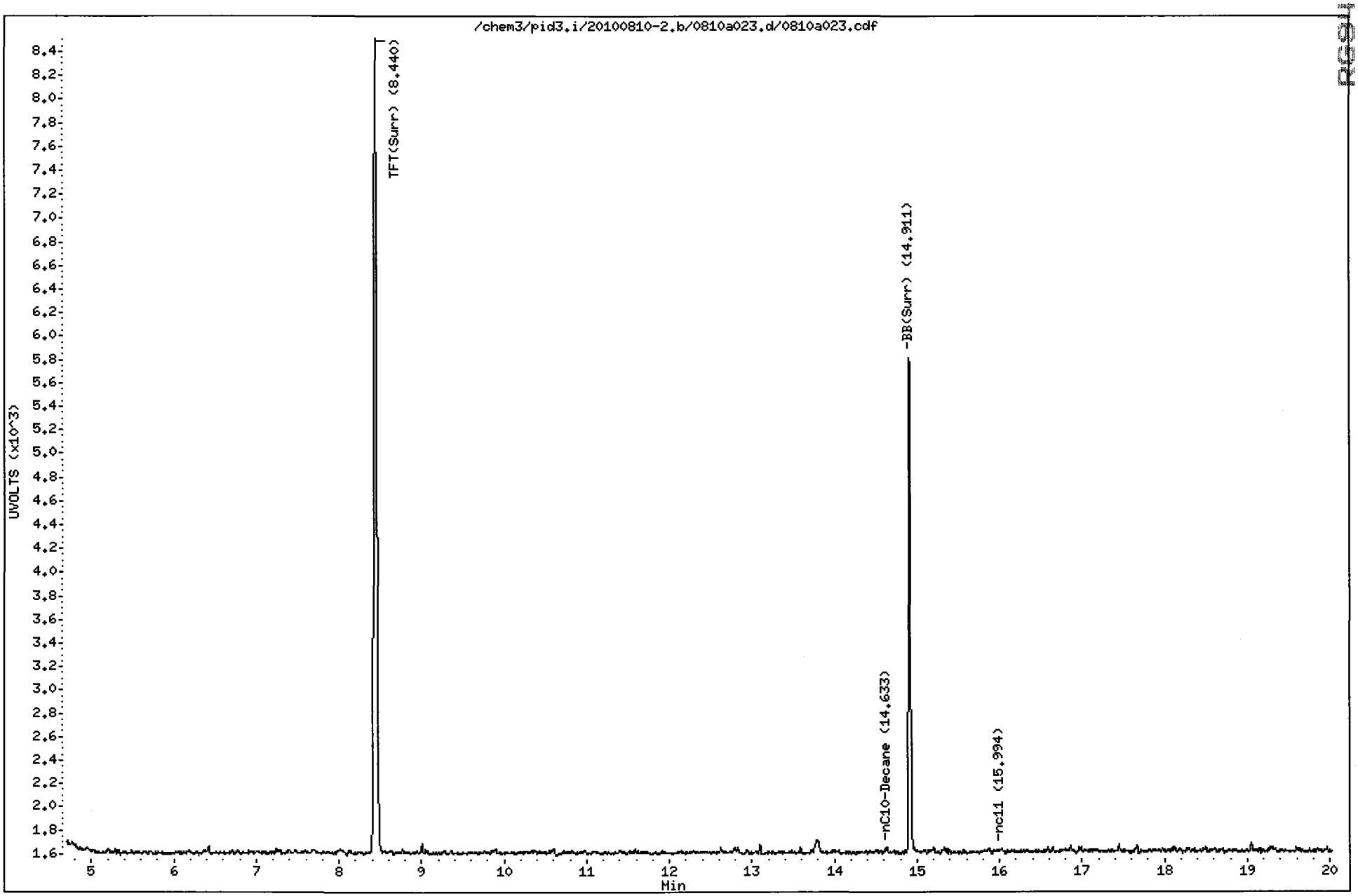
Sample Info: RG94J

Operator: MH

Column phase: RTX 502-2 FID

Column diameter: 0.18

RG94J-01531



Data File: /chem3/pid3.i/20100810-1.b/0810a023.d

Date : 10-AUG-2010 15:25

Client ID: MW12-17.5-19-080210

Sample Info: RG94J

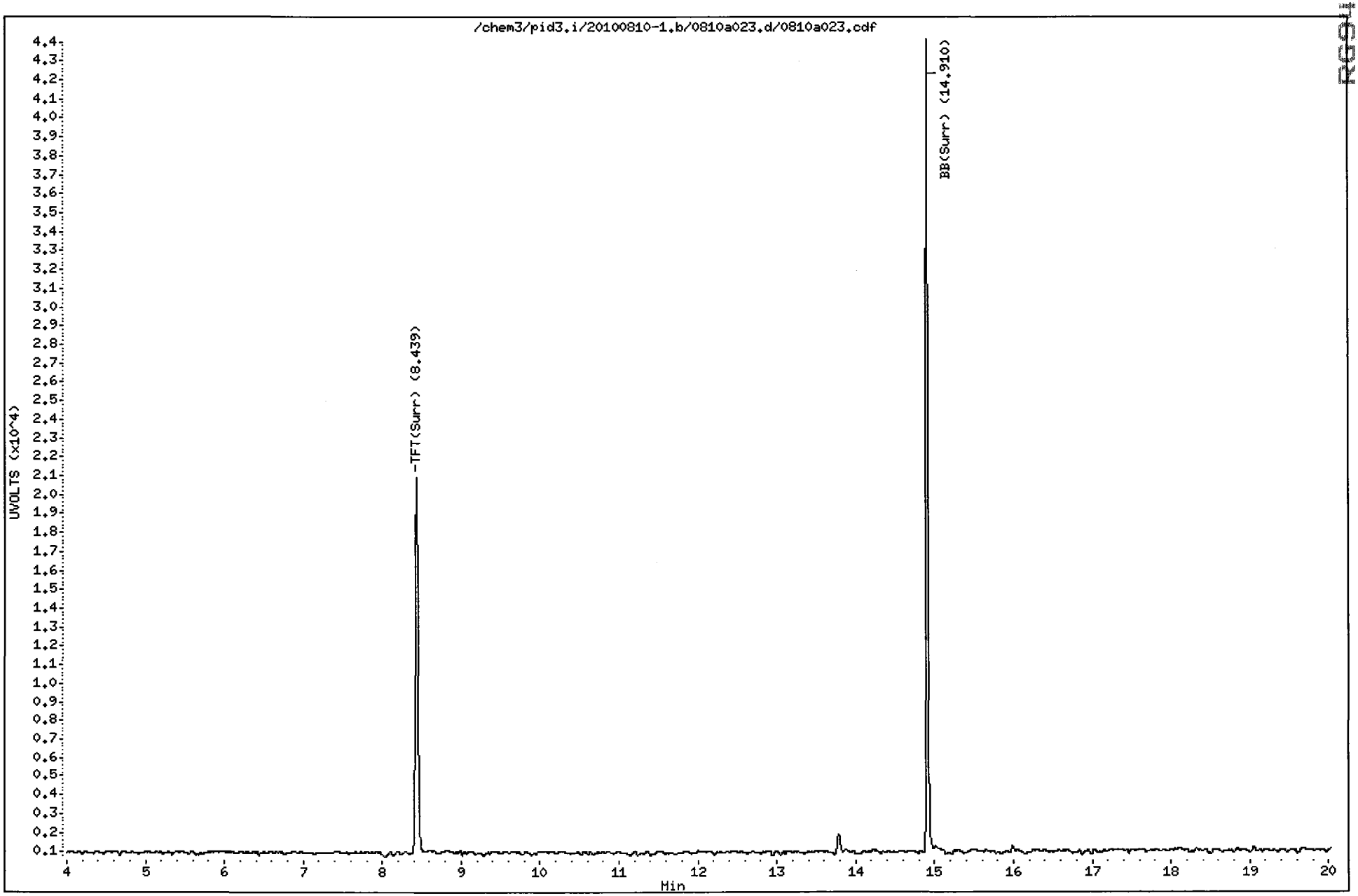
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RG94J 61532



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a027.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a027.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: BCAL 3
Client ID:
Injection Date: 10-AUG-2010 17:04
Matrix: WATER
Dilution Factor: 1.000

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.441	0.032	6818	81424	94.7	TFT(Surr)
14.911	0.023	4320	34346	100.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	549002	0.663
8015B 2MP-TMB	(4.93 to 15.58)	1664107	555401	0.334
AK101 nC6-nC10	(5.41 to 14.53)	1131784	518342	0.458
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	549002	0.622

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.439	0.032	19691	89.6	TFT(Surr)
14.909	0.023	44122	96.8	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.715	0.027	33276	25.17	Benzene
10.307	0.035	32585	24.69	Toluene
12.841	0.037	29811	23.99	Ethylbenzene
12.979	0.037	65059	48.31	M/P-Xylene
13.757	0.033	31857	24.80	O-Xylene
5.305	0.014	9421	26.48	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a027.d

Date : 10-AUG-2010 17:04

Client ID:

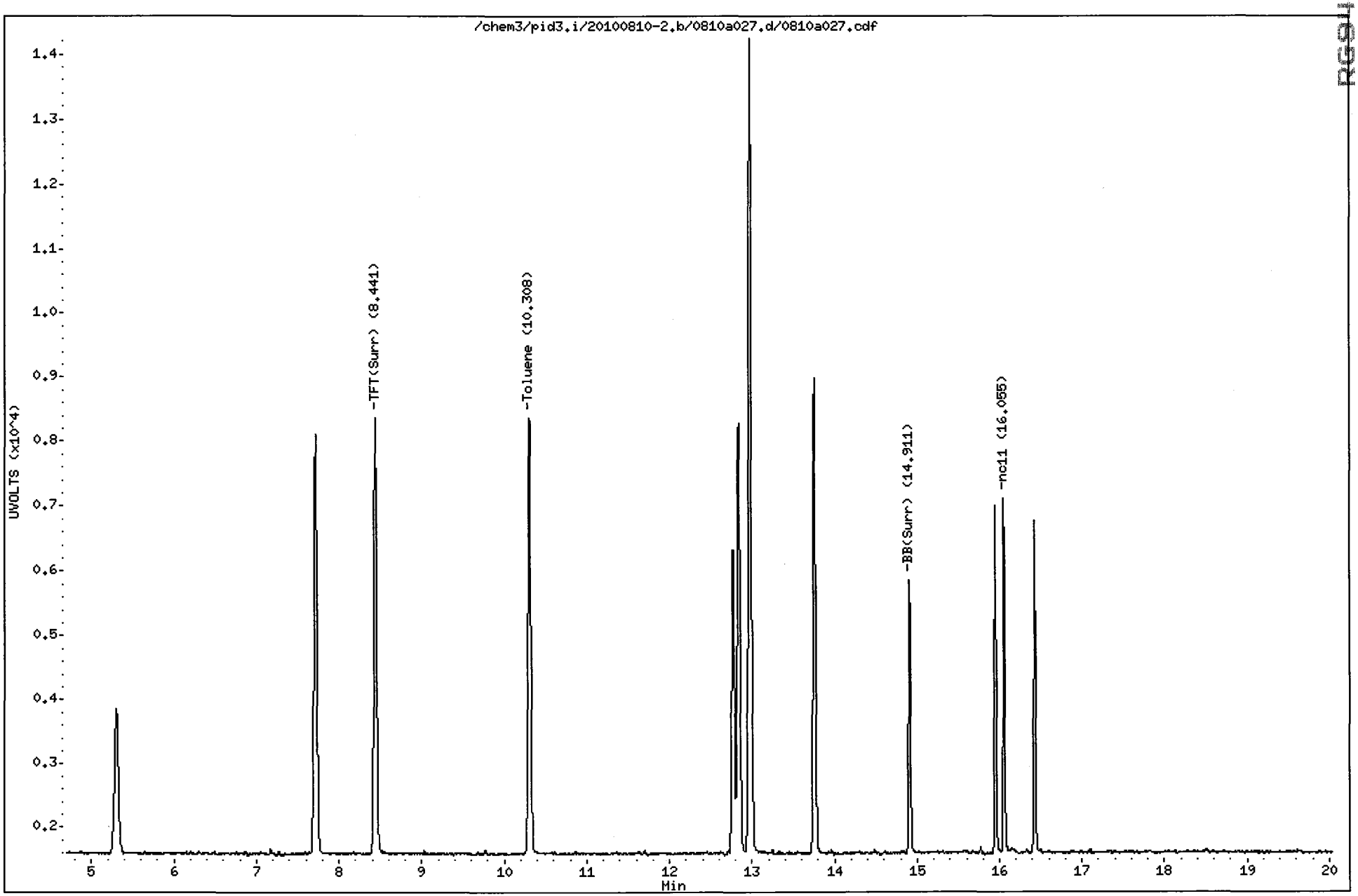
Sample Info: BCAL 3

Column phase: RTX 502-2 FID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18



Data File: /chem3/pid3.i/20100810-1.b/0810a027.d

Date : 10-AUG-2010 17:04

Client ID:

Sample Info: BCAL 3

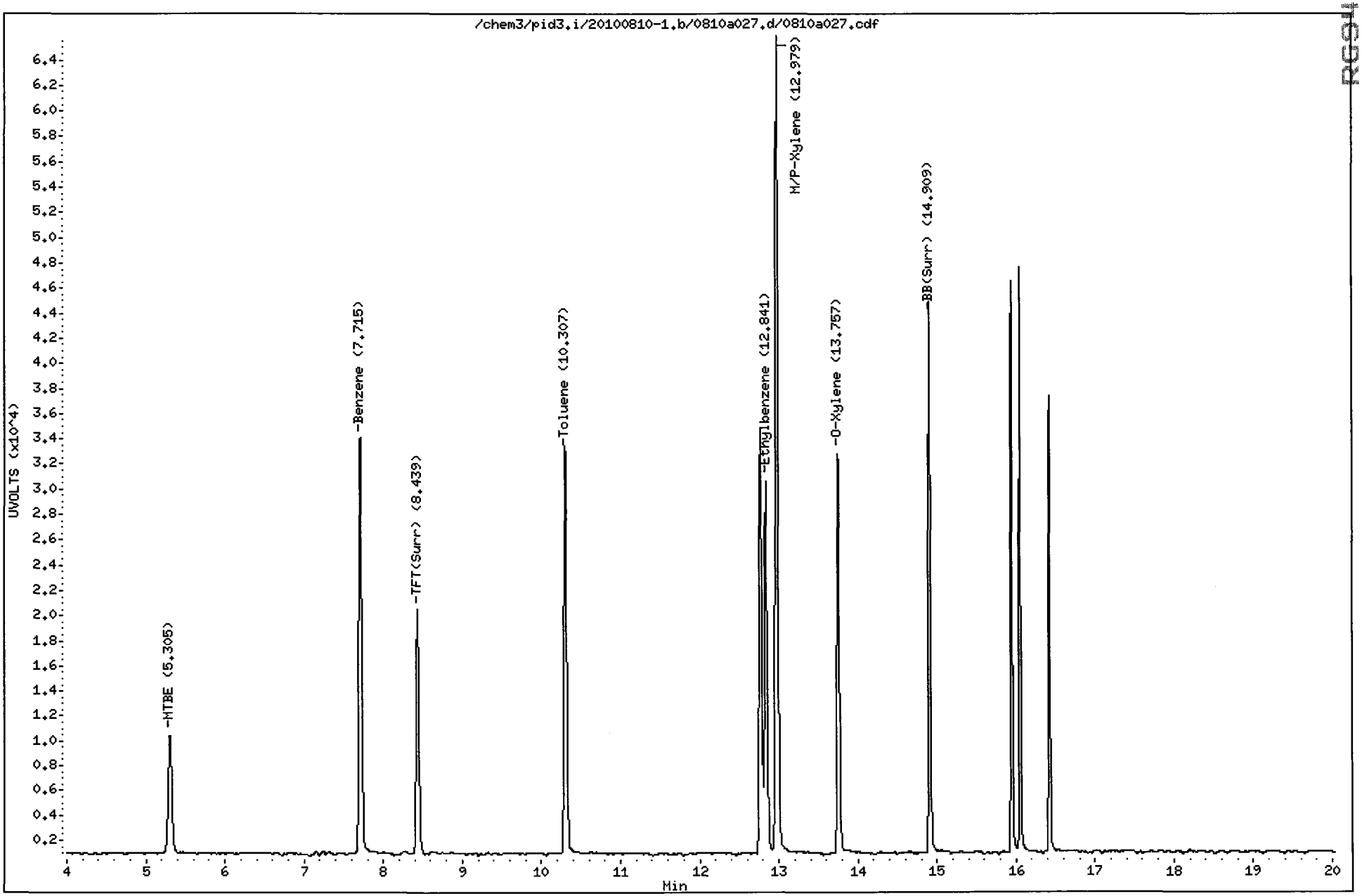
Column phase: RTX 502-2 PID

Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RSAL 01535



8/13/10

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid3.i/20100810-2.b/0810a028.d
Data file 2: /chem3/pid3.i/20100810-1.b/0810a028.d
Method: /chem3/pid3.i/20100810-1.b/PIDB.m
Instrument: pid3.i
Gas Ical Date: 28-JUL-2010
BETX Ical Date: 29-JUN-2010

ARI ID: GCAL 3
Client ID:
Injection Date: 10-AUG-2010 17:28
Matrix: WATER
Dilution Factor: 1.000

==========

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
8.440	0.031	7179	85917	99.7	TFT(Surr)
14.911	0.024	4477	36395	104.0	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(10.17 to 17.11)	827807	1909792	2.307 M
8015B 2MP-TMB	(4.93 to 15.58)	1664107	3741568	2.248 M
AK101 nC6-nC10	(5.41 to 14.53)	1131784	2500392	2.209 M
NWTPHG Tol-Nap	(10.17 to 18.18)	882029	2016366	2.286 M

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

==========

PID Surrogates

RT	Shift	Response	%Rec	Compound
8.438	0.030	20818	94.7	TFT(Surr)
14.909	0.023	45534	99.9	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.716	0.027	6938	5.25	Benzene
10.306	0.034	92135	69.81	Toluene
12.840	0.035	26654	21.45	Ethylbenzene
12.981	0.038	103515	76.87	M/P-Xylene
13.756	0.032	42698	33.23	O-Xylene
5.308	0.017	82539	231.98	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak peak was manually integrated

Data File: /chem3/pid3.i/20100810-2.b/0810a028.d

Date : 10-AUG-2010 17:28

Client ID:

Sample Info: GCAL 3

Column phase: RTX 502-2 FID

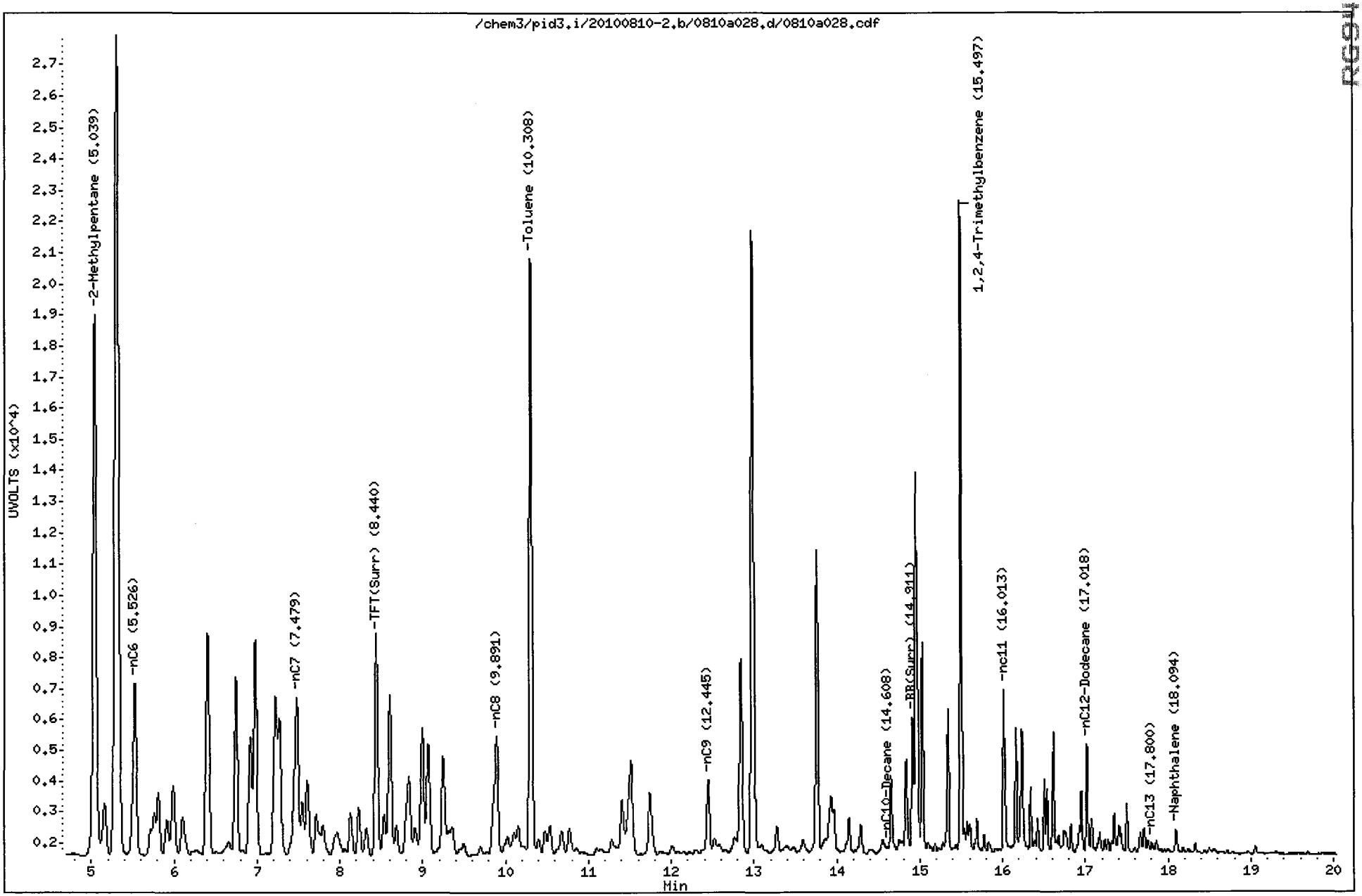
Instrument: pid3.i

Operator: MH

Column diameter: 0.18

RSSI: 01537

/chem3/pid3.i/20100810-2.b/0810a028.d/0810a028.cdf



Data File: /chem3/pid3.i/20100810-1.b/0810a028.d

Date : 10-AUG-2010 17:28

Client ID:

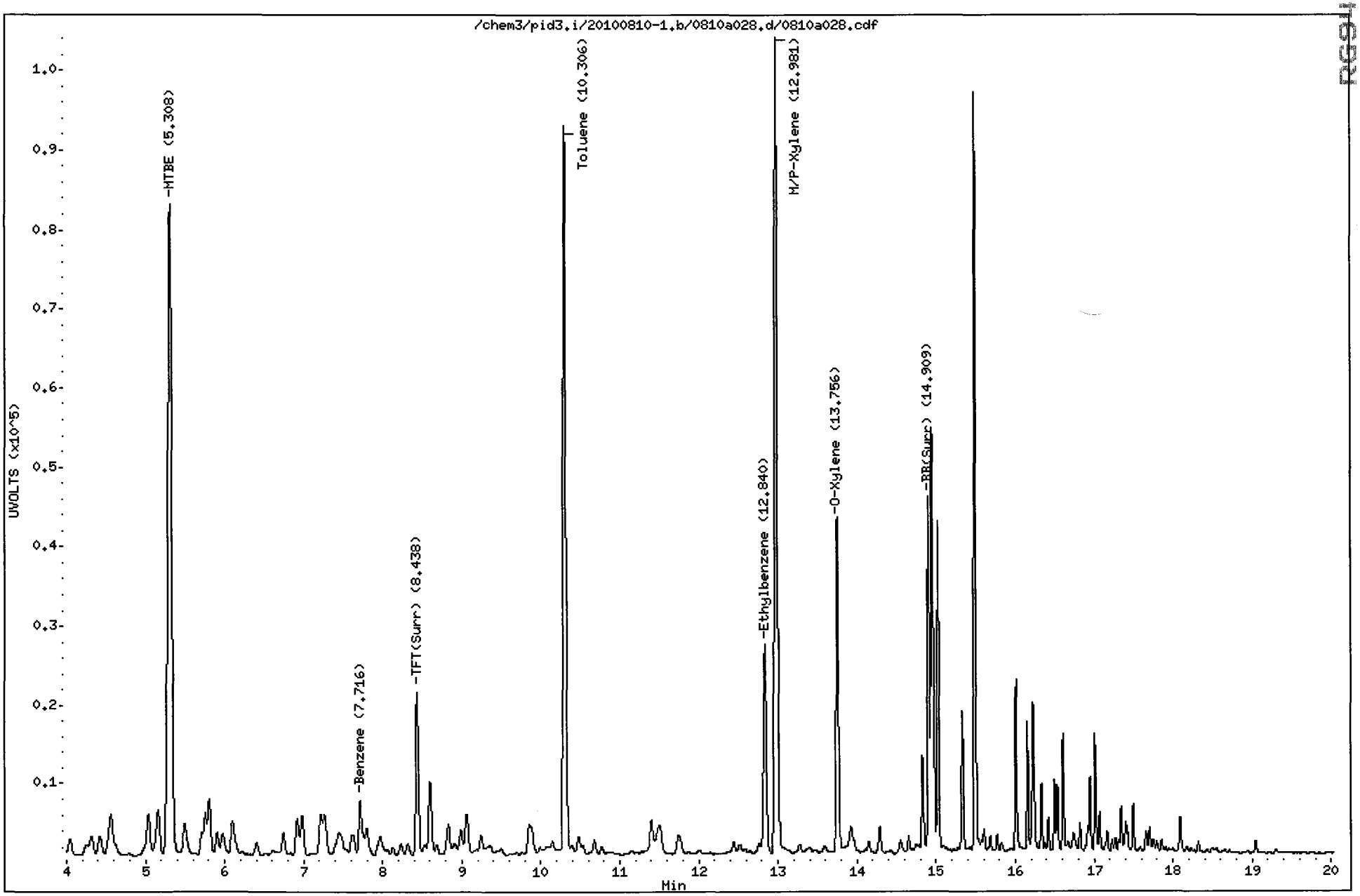
Sample Info: GCAL 3

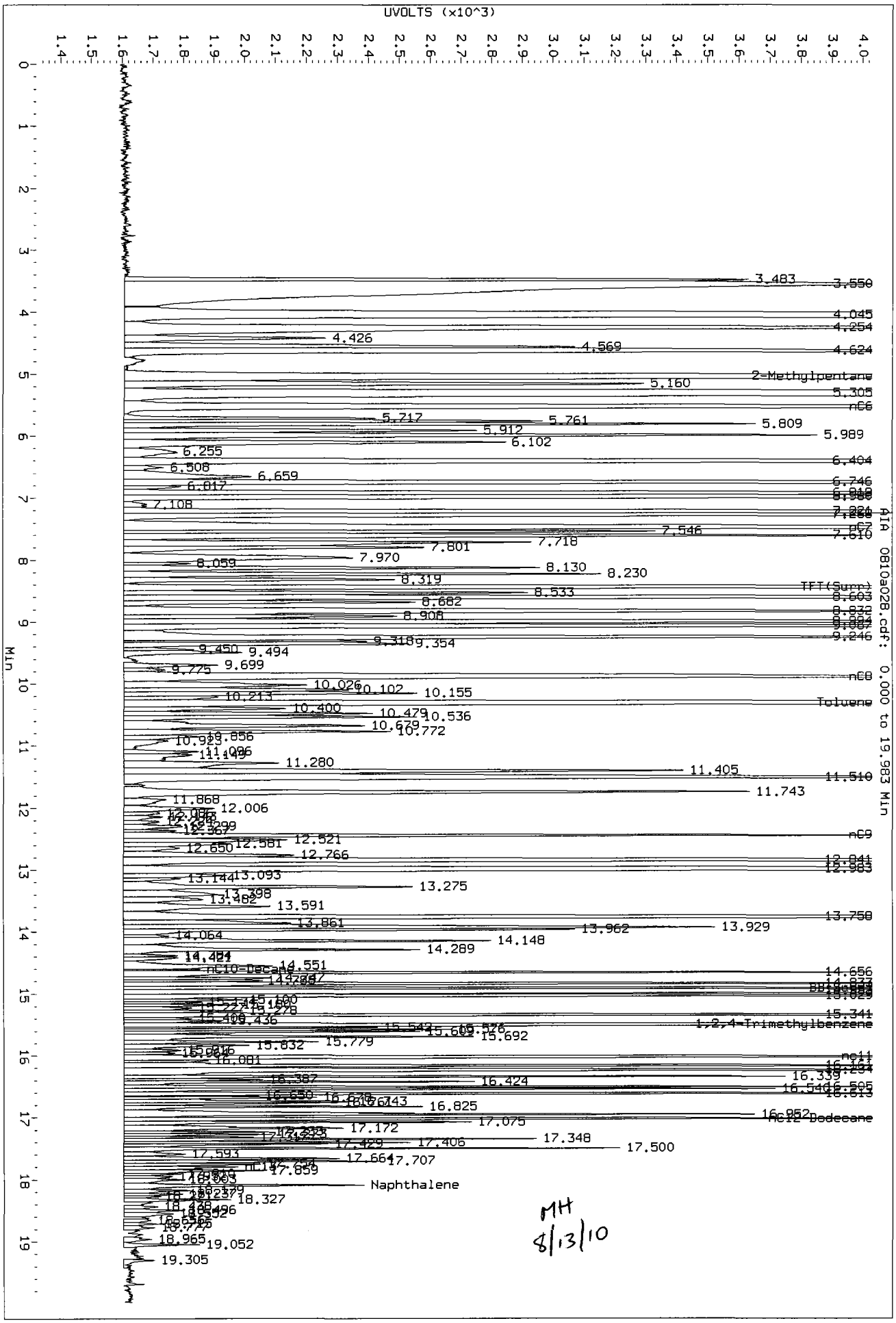
Column phase: RTX 502-2 PID

Instrument: pid3.i

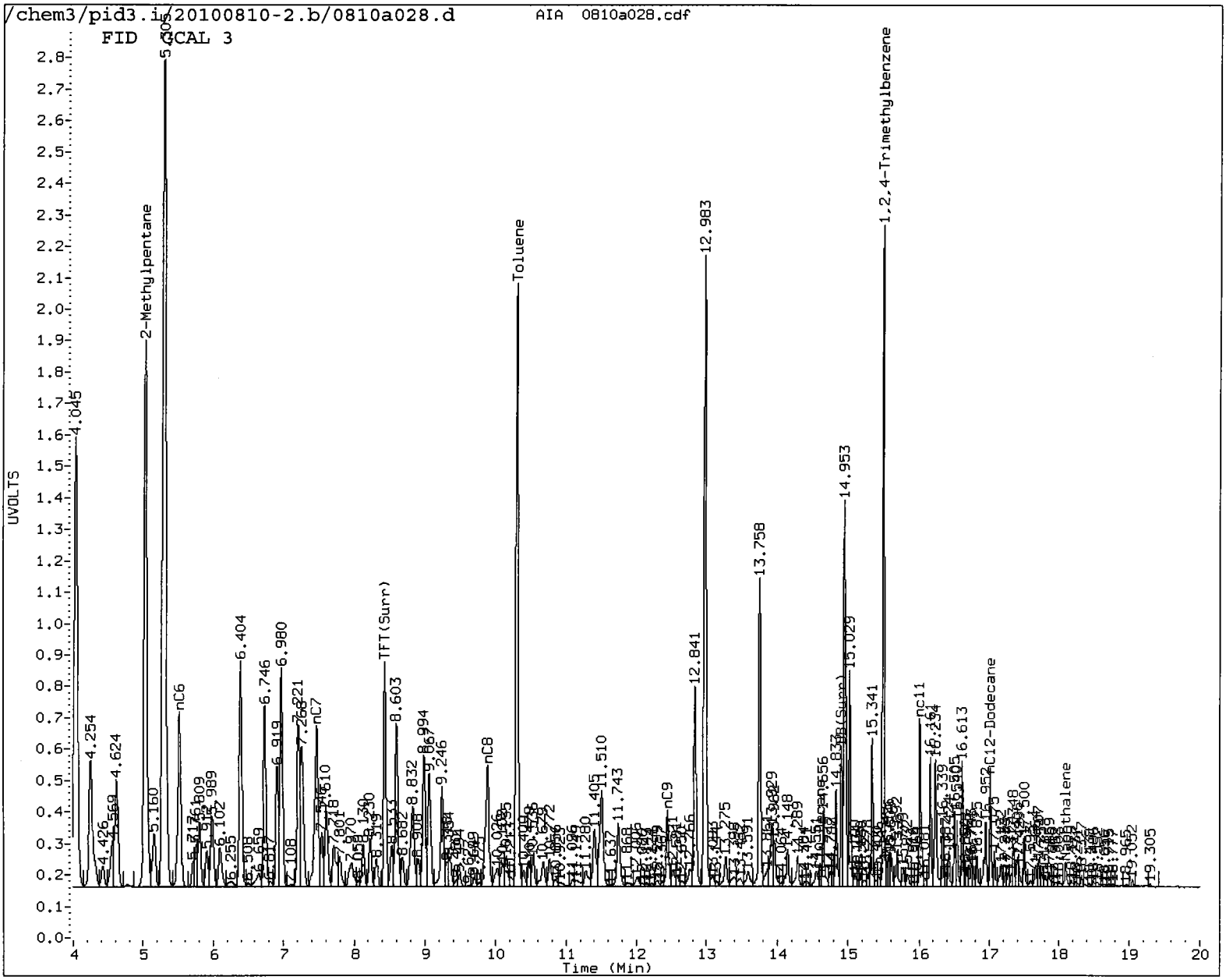
Operator: MH

Column diameter: 0.18




UVOLTS (x10^3)
Min
Data File: /chem3/pid3.i/20100810-2.b/0810a028.d/0810a028.cdf
Injection Date: 10-AUG-2010 17:28
Instrument: pid3.i
Client Sample ID:
AIA 0810a028.cdf: 0.000 to 19.983 Min
3.483
3.550
4.045
4.254
4.426
4.569
4.624
2=Methylpentane
5.160
5.305
nC6
5.717
5.761
5.809
5.912
5.989
6.102
6.255
6.404
6.508
6.659
6.746
6.817
7.108
nC7
7.546
7.610
7.718
7.801
7.970
8.059
8.130
8.230
8.319
TFT(Surr)
8.533
8.603
8.682
8.908
9.246
9.318
9.354
9.450
9.494
9.699
9.775
nC8
10.026
10.102
10.155
10.213
Toluene
10.400
10.479
10.536
10.679
10.772
10.856
10.929
11.280
11.405
11.510
11.743
11.868
12.006
nC9
12.521
12.581
12.650
12.766
12.983
13.093
13.144
13.275
13.398
13.482
13.591
13.750
13.861
13.929
13.962
14.064
14.148
14.289
nC10=Decane
14.551
14.656
15.341
1,2,4-Trimethylbenzene
15.436
15.542
15.605
15.692
15.779
15.832
nC11
16.081
16.339
16.387
16.424
16.505
16.650
16.743
16.825
16.952
nC12=Dodecane
17.075
17.172
17.348
17.406
17.429
17.500
17.593
17.664
17.707
17.859
Naphthalene
18.327
18.965
19.052
19.305

MH
8/13/10



MANUAL INTEGRATION

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 8/13/10

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: RG94

Analytical Resources,Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 8-5-10

Final Volume 50

Final Volume (Hg):

Sample ID RG94 MBSPK

		Prepcode:	TNC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2715-1		
		Vol Added (mL):	0.5		
STOCK CONCENTRATION	Ag	50		2.0	
	Al	200	200		
	As	200 ✓		10	
	Ba	200	200		
	Be	50	50		
	Ca	1000	1000		
	Cd	50		2.0	
	Co	50	50		
	Cr	50	50		
	Cu	50	50		
	Fe	200	200		
	K	1000	1000		
	Mg	1000	1000		
	Mn	50	50		
	Na	1000	1000		
	Ni	50	50		
	Pb	200 ✓		10	
	Se	200		10	
	Sr	50	50		
	Tl	200		10	
	V	50	50		
	Zn	50	50		

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

RG94:01542

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 8-05-10

Matrix: Water Block ID: #7 Block Temp: 94 Thermometer: MP7

ARI Sample ID	Btl #	pH<2	Prep Code: TWL Initial ~~Wt (g)~~ Vol (mL)	Prep Code: TWL Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
RG67 A	18	✓	50.0	50.0			
" ADUP	18	✓					
" ASPK	18	✓					
" MB1	—	✓					
" MB1SPK	—	✓					
RG69 M	3	✓					
" MB2	—	✓					
" MB2SPK	—	✓					
RG94 K	12	✓					
" MB2	—	✓					
" MB2SPK	—	✓					
RH04 D	1	—					
" E	1	✓					
" F	1	✓					
" MB1	+	✓					
" MB1SPK	+	✓					
RH07 A	1	✓					
" ADUP	1	✓					
" ASPK	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	✓					
" MB1	—	✓	↓	↓			
" MB1SPK	—	✓	50.0	50.0			
				8-5-10 DM ←			

Chemical/Reagent ID:

HNO_3: IS547 HCl: MP1924 H_2O_2: — Tube Lot #: 005282

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 8-10-10

Final Volume 50

Final Volume (Hg): 50

Sample ID RG85 MBISPK, MBISPD

		Prepcode:	SWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2715-1		
		Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag	50		2.0	
	Al	200	200		
	As	200 ✓		10	
	Ba	200	200		
	Be	50	50		
	Ca	1000	1000		
	Cd	50		2.0	
	Co	50	50		
	Cr	50	50		
	Cu	50 ✓	50		
	Fe	200	200		
	K	1000	1000		
	Mg	1000	1000		
	Mn	50	50		
	Na	1000	1000		
	Ni	50	50		
	Pb	200 ✓		10	
	Se	200		10	
	Sr	50	50		
	Tl	200		10	
	V	50	50		
	Zn	50 ✓	50		

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK	SMM	CVA	1.0	0.1	2674-13
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

RG91: 0151E

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM
Matrix: Soil

Date: 8-10-10
Block Temp: 90°C

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN DM 8-10-10 Final Vol (mL)	Initial Wt (g) Vol (mL)	Final Vol (mL)	Comments
RG94 A	8	—	1.057	50.0			
" B	8	—	1.070				
" C	7	—	1.042				
" D	8	—	1.084				
" E	8	—	1.031				
" F	6	—	1.019				
" G	6	—	1.059				
" H	20	—	1.071				
" HDUP	20	—	1.074				
" HSPK	20	—	1.076				
" I	8	—	1.043				
" J	8	—	1.047				
" MB1	—	—	—				
" MB1SPK	—	—	—				
RG85 A	2	—	1.045				
" B	2	—	1.012				
" MB1	—	—	—				
" MB1SPK	—	—	—				
" MB1SPD	—	—	—				
RH20 A	1	—	1.025				
" B	1	—	1.031				
" MB	—	—	—				
" MBSPK	—	—	—	50.0			
				8-10-10	DM		

Chemical/Reagent ID:
HNO_3: MP1936 | IS547 HCl: IS548 H_2O_2: IS512 Tube Lot #: 1005282

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: RG94

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 6.24.10 Analysis Date: 8.12.10 Analyst: VB

LR Date: 6.25.10 Page: 1 of 4

All corrections made by analyst unless otherwise noted. 8.13.10 VB

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD0			2749-5
		2			2748-11
		3			2749-1
		4			-2
		5			-3
		ICV			2752-14
		ICB			
		CCI			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		RG85 MB1	SWC	2	✓
		RG10 MB	TWC		✓
		A			
		RG85 A	SWC	2	
		B			
		MB1SPK			✓
		MB1SPD			✓
		RG10 MBSPK	TWC		✓
		CCV2			
		CCB2			
		RG94 MB1	SWC	2	✓
		A			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: —   Analysis Date: 8.12.10   Analyst: JB

LR Date: —   Page: 2 of 4

All corrections made by analyst unless otherwise noted. 8.12.10 JB

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		RG94 B	SWC	2	
		C	↓	↓	
		D			
		E			
		F			
		G			
		I			
		↓ MB1SPK	↓	↓	✓
		CCV3			
		CCB3			
		RG94 MB2	TWC		✓
		HDUP	SWC	2	✓
		H	↓	↓	
		HSPK			✓
		J	↓	↓	
		K	TWC		
		↓ MB2SPK	↓		
		CCV4			Se noisy rerun elements in control
		~~CCV4~~ CCV5			
		CCB4			
		CCV6			
		CCB5			
		~~RG79 MB1~~	~~SWC~~	~~2~~	✓
		~~RG80 U~~	~~↓~~	~~5~~	

JB 8.13.10

5076F
ICP-OES-02-Daily Run Log

Revision 000
3/20/09

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP/ICP-MS GFA CVA **Analysis Date:** 8.12.10

IZ	Analyst JB 8.13.10	Peer MS 13	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	—	
Dilution factors	✓	—	
Crossouts/Corrections/Deletions	✓	—	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	—	
Curve fit	✓	—	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	—	
Samples:			
RSD's & SD's	✓	✓	SEE LCQ
Internal Standards	✓	—	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	—	
Matrix Spikes	✓	—	
Matrix Duplicates	✓	—	RG79 CAF
Method Blanks	✓	—	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	RG79

===

Analysis Begun

Start Time: 8/12/2010 9:34:55 AM
Plasma On Time: 8/12/2010 8:37:11 AM
Technique: ICP Continuous
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

===

Method Loaded
Method Name: 7300bcESI2FAST
Method Last Saved: 8/12/2010 9:28:39 AM
IEC File: IEC5.iec
MSF File:
Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Na 589.592	Lin Thru 0	Peak Area	Axial	ScA 357.253	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sn 189.927	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Tl 190.801	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Zn 206.200	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	ScA 357.253	Yes
ScR 361.383	Lin, Calc Int	Peak Area	Radial	ScR 361.383	Yes
		Peak Area	Axial	n/a	n/a
		Peak Area	Radial	n/a	n/a

===

Sequence No.: 1
Autosampler Location: 1
Sample ID: Calib Blank 1
Date Collected: 8/12/2010 9:34:56 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1674616.0	16130.97	0.96%	100.0	%
ScR 361.383	271668.2	1754.55	0.65%	100.0	%
Ag 328.068†	-203.2	32.43	15.96%	[0.00]	mg/L
Al 308.215†	-40.6	6.53	16.06%	[0.00]	mg/L
As 188.979†	-15.9	5.66	35.52%	[0.00]	mg/L

B 249.677†	-32.9	3.15	9.58%	[0.00] mg/L
Ba 233.527†	26.0	3.04	11.69%	[0.00] mg/L
Be 313.042†	811.9	20.78	2.56%	[0.00] mg/L
Ca 317.933†	115.0	8.34	7.26%	[0.00] mg/L
Cd 228.802†	64.8	4.80	7.40%	[0.00] mg/L
Co 228.616†	-80.3	4.58	5.70%	[0.00] mg/L
Cr 267.716†	-50.8	1.60	3.16%	[0.00] mg/L
Cu 324.752†	9047.1	114.64	1.27%	[0.00] mg/L
Fe 273.955†	8.3	2.76	33.13%	[0.00] mg/L
K 766.490†	-35.7	23.41	65.65%	[0.00] mg/L
Mg 279.077†	-32.4	5.01	15.45%	[0.00] mg/L
Mn 257.610†	36.5	5.38	14.74%	[0.00] mg/L
Mo 202.031†	89.7	3.97	4.43%	[0.00] mg/L
Na 589.592†	56.4	22.06	39.11%	[0.00] mg/L
Na 330.237†	-70.4	4.73	6.72%	[0.00] mg/L
Ni 231.604†	-1.1	1.62	142.66%	[0.00] mg/L
Pb 220.353†	-86.1	5.42	6.29%	[0.00] mg/L
Sb 206.836†	82.9	6.64	8.01%	[0.00] mg/L
Se 196.026†	-54.8	3.90	7.13%	[0.00] mg/L
Si 288.158†	69.8	5.83	8.36%	[0.00] mg/L
Sn 189.927†	-7.4	0.93	12.61%	[0.00] mg/L
Sr 421.552†	208.0	16.47	7.92%	[0.00] mg/L
Ti 334.903†	-67.3	16.12	23.95%	[0.00] mg/L
Tl 190.801†	-31.7	1.23	3.87%	[0.00] mg/L
V 292.402†	248.2	4.39	1.77%	[0.00] mg/L
Zn 206.200†	1.1	0.88	77.86%	[0.00] mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 8/12/2010 9:38:53 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1689049.9	20164.36	1.19%	100.9	%
ScR 361.383	275783.7	1372.94	0.50%	101.5	%
Ba 233.527†	26569.5	106.82	0.40%	[10]	mg/L
Cd 228.802†	182941.3	3115.39	1.70%	[10]	mg/L
Co 228.616†	238791.3	4189.12	1.75%	[10]	mg/L
Cr 267.716†	44012.0	157.58	0.36%	[10]	mg/L
Cu 324.752†	2624893.8	39371.37	1.50%	[10]	mg/L
Mn 257.610†	258078.6	828.37	0.32%	[10]	mg/L
V 292.402†	874543.2	13998.64	1.60%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 8/12/2010 9:40:35 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1692927.9	18546.68	1.10%	101.1	%
ScR 361.383	284705.1	2645.46	0.93%	104.8	%
Ag 328.068†	163310.0	1916.58	1.17%	[1.0]	mg/L
As 188.979†	11524.4	168.37	1.46%	[10]	mg/L
B 249.677†	30495.9	637.07	2.09%	[10]	mg/L
Be 313.042†	2422491.7	19726.10	0.81%	[5.0]	mg/L
Na 589.592†	550633.8	5048.19	0.92%	[50]	mg/L
Ni 231.604†	13039.7	208.65	1.60%	[10]	mg/L
Pb 220.353†	57455.4	961.65	1.67%	[10]	mg/L
Se 196.026†	10959.0	143.38	1.31%	[10]	mg/L
Sr 421.552†	2923733.2	33684.17	1.15%	[5]	mg/L
Tl 190.801†	13822.4	200.03	1.45%	[10]	mg/L
Zn 206.200†	4540.4	89.01	1.96%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 8/12/2010 9:43:05 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1716025.1	3942.81	0.23%	102.5	%
ScR 361.383	295103.7	1020.97	0.35%	108.6	%
Mo 202.031†	146203.6	596.51	0.41%	[10]	mg/L
Sb 206.836†	24272.6	77.99	0.32%	[10]	mg/L
Si 288.158†	12575.8	205.44	1.63%	[10]	mg/L
Sn 189.927†	30455.6	146.04	0.48%	[10]	mg/L
Ti 334.903†	192990.8	755.39	0.39%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 8/12/2010 9:45:16 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	1617821.4	10950.08	0.68%	96.61	%
ScR 361.383	292417.7	2642.30	0.90%	107.6	%
Al 308.215†	33331.5	425.98	1.28%	[30]	mg/L
Ca 317.933†	348768.4	3217.92	0.92%	[30]	mg/L
Fe 273.955†	92674.2	1376.53	1.49%	[100]	mg/L
K 766.490†	138915.6	677.10	0.49%	[100]	mg/L
Mg 279.077†	22634.6	299.91	1.32%	[30]	mg/L
Na 330.237†	2649.6	36.75	1.39%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	163300	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1111	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1152	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	3050	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	2657	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	484500	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	11630	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	18290	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	23880	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	4401	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	262500	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	926.7	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1389	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	754.5	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	25810	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	14620	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	11010	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	26.50	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	1304	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	5746	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2427	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1096	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1258	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3046	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	584700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	19300	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1382	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	87450	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	454.0	0.00000	1.000000	

==========

Analysis Begun

Start Time: 8/12/2010 9:52:00 AM **Plasma On Time: 8/12/2010 8:37:11 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CV **Date Collected: 8/12/2010 9:52:01 AM**
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	187.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1709793.4	102.1	%	1.67				1.63%
ScR 361.383	293056.4	107.9	%	0.83				0.77%
Ag 328.068†	168024.2	1.029	mg/L	0.0218	1.029	mg/L	0.0218	2.12%
Al 308.215†	2361.8	2.094	mg/L	0.0202	2.094	mg/L	0.0202	0.97%
As 188.979†	2316.8	2.027	mg/L	0.0405	2.027	mg/L	0.0405	2.00%
B 249.677†	2993.2	0.9798	mg/L	0.00823	0.9798	mg/L	0.00823	0.84%
Ba 233.527†	2584.0	0.9718	mg/L	0.00378	0.9718	mg/L	0.00378	0.39%
Be 313.042†	464583.8	0.9584	mg/L	0.00606	0.9584	mg/L	0.00606	0.63%
Ca 317.933†	24392.8	2.098	mg/L	0.0242	2.098	mg/L	0.0242	1.16%
Cd 228.802†	18825.7	1.023	mg/L	0.0220	1.023	mg/L	0.0220	2.15%
Co 228.616†	23643.3	0.9882	mg/L	0.02106	0.9882	mg/L	0.02106	2.13%
Cr 267.716†	4335.9	0.9846	mg/L	0.00857	0.9846	mg/L	0.00857	0.87%
Cu 324.752†	265790.5	1.012	mg/L	0.0214	1.012	mg/L	0.0214	2.11%
Fe 273.955†	1849.9	1.991	mg/L	0.0112	1.991	mg/L	0.0112	0.56%
K 766.490†	28245.8	20.33	mg/L	0.356	20.33	mg/L	0.356	1.75%
Mg 279.077†	1542.7	2.050	mg/L	0.0140	2.050	mg/L	0.0140	0.68%
Mn 257.610†	24195.9	0.9380	mg/L	0.00938	0.9380	mg/L	0.00938	1.00%
Mo 202.031†	14600.9	0.9986	mg/L	0.01960	0.9986	mg/L	0.01960	1.96%
Na 589.592†	537940.2	48.85	mg/L	0.242	48.85	mg/L	0.242	0.50%
Na 330.237†	1403.9	53.04	mg/L	0.396	53.04	mg/L	0.396	0.75%
Ni 231.604†	1296.8	0.9959	mg/L	0.00709	0.9959	mg/L	0.00709	0.71%
Pb 220.353†	11556.3	2.013	mg/L	0.0405	2.013	mg/L	0.0405	2.01%
Sb 206.836†	5000.3	2.066	mg/L	0.0451	2.066	mg/L	0.0451	2.18%
Se 196.026†	2208.8	2.015	mg/L	0.0455	2.015	mg/L	0.0455	2.26%
Si 288.158†	2626.0	2.092	mg/L	0.0261	2.092	mg/L	0.0261	1.25%
Sn 189.927†	3036.9	0.9990	mg/L	0.02166	0.9990	mg/L	0.02166	2.17%
Sr 421.552†	575463.6	0.9841	mg/L	0.01028	0.9841	mg/L	0.01028	1.04%
Ti 334.903†	19521.3	1.010	mg/L	0.0111	1.010	mg/L	0.0111	1.10%
Tl 190.801†	2766.6	2.002	mg/L	0.0371	2.002	mg/L	0.0371	1.85%
V 292.402†	85948.1	0.9869	mg/L	0.01842	0.9869	mg/L	0.01842	1.87%
Zn 206.200†	440.9	0.9705	mg/L	0.01130	0.9705	mg/L	0.01130	1.16%

Sequence No.: 2
Sample ID: CB

Autosampler Location: 1
Date Collected: 8/12/2010 9:58:17 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	187.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1708625.1	102.0	%	2.43				2.38%
ScR 361.383	297250.7	109.4	%	0.29				0.27%
Ag 328.068†	-13.2	-0.00008	mg/L	0.000166	-0.00008	mg/L	0.000166	204.87%
Al 308.215†	-1.4	-0.00129	mg/L	0.004880	-0.00129	mg/L	0.004880	377.71%
As 188.979†	2.5	0.00215	mg/L	0.001401	0.00215	mg/L	0.001401	65.25%
B 249.677†	7.8	0.00255	mg/L	0.001011	0.00255	mg/L	0.001011	39.62%
Ba 233.527†	0.4	0.00016	mg/L	0.000150	0.00016	mg/L	0.000150	95.92%
Be 313.042†	-34.3	-0.00007	mg/L	0.000034	-0.00007	mg/L	0.000034	47.32%
Ca 317.933†	6.0	0.00052	mg/L	0.001617	0.00052	mg/L	0.001617	312.95%
Cd 228.802†	6.3	0.00034	mg/L	0.000247	0.00034	mg/L	0.000247	73.46%
Co 228.616†	-7.1	-0.00030	mg/L	0.000042	-0.00030	mg/L	0.000042	14.15%
Cr 267.716†	3.4	0.00078	mg/L	0.001113	0.00078	mg/L	0.001113	143.16%
Cu 324.752†	-116.0	-0.00044	mg/L	0.000783	-0.00044	mg/L	0.000783	176.44%
Fe 273.955†	-2.9	-0.00309	mg/L	0.001390	-0.00309	mg/L	0.001390	45.03%
K 766.490†	-28.9	-0.02084	mg/L	0.020031	-0.02084	mg/L	0.020031	96.13%
Mg 279.077†	4.7	0.00629	mg/L	0.010316	0.00629	mg/L	0.010316	164.03%
Mn 257.610†	-0.1	0.00000	mg/L	0.000069	0.00000	mg/L	0.000069	>999.9%
Mo 202.031†	25.9	0.00177	mg/L	0.000538	0.00177	mg/L	0.000538	30.32%
Na 589.592†	5.6	0.00051	mg/L	0.000848	0.00051	mg/L	0.000848	167.44%
Na 330.237†	13.7	0.5160	mg/L	0.48903	0.5160	mg/L	0.48903	94.78%
Ni 231.604†	-0.8	-0.00063	mg/L	0.002418	-0.00063	mg/L	0.002418	382.37%
Pb 220.353†	3.3	0.00057	mg/L	0.000388	0.00057	mg/L	0.000388	68.20%
Sb 206.836†	5.9	0.00242	mg/L	0.002880	0.00242	mg/L	0.002880	119.01%
Se 196.026†	-0.4	-0.00039	mg/L	0.005874	-0.00039	mg/L	0.005874	>999.9%
Si 288.158†	-8.6	-0.00686	mg/L	0.006353	-0.00686	mg/L	0.006353	92.61%
Sn 189.927†	2.6	0.00087	mg/L	0.001039	0.00087	mg/L	0.001039	119.50%
Sr 421.552†	-9.8	-0.00002	mg/L	0.000074	-0.00002	mg/L	0.000074	439.23%
Ti 334.903†	15.4	0.00080	mg/L	0.000511	0.00080	mg/L	0.000511	64.25%
Tl 190.801†	3.9	0.00286	mg/L	0.000797	0.00286	mg/L	0.000797	27.89%
V 292.402†	3.9	0.00005	mg/L	0.000213	0.00005	mg/L	0.000213	429.92%
Zn 206.200†	-0.4	-0.00089	mg/L	0.001155	-0.00089	mg/L	0.001155	130.44%

User canceled analysis.

Analysis Begun

Start Time: 8/12/2010 10:02:35 AM **Plasma On Time: 8/12/2010 8:37:11 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 3 **Autosampler Location: 301**
Sample ID: CRI **Date Collected: 8/12/2010 10:02:36 AM**
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1673196.8	99.92	%	3.058				3.06%
ScR 361.383	298052.2	109.7	%	1.98				1.80%
Ag 328.068†	477.0	0.00292	mg/L	0.000110	0.00292	mg/L	0.000110	3.78%
Al 308.215†	62.1	0.05575	mg/L	0.006271	0.05575	mg/L	0.006271	11.25%
As 188.979†	59.3	0.05152	mg/L	0.002646	0.05152	mg/L	0.002646	5.14%
B 249.677†	68.5	0.02247	mg/L	0.000568	0.02247	mg/L	0.000568	2.53%
Ba 233.527†	7.4	0.00279	mg/L	0.000375	0.00279	mg/L	0.000375	13.43%
Be 313.042†	424.2	0.00087	mg/L	0.000065	0.00087	mg/L	0.000065	7.45%
Ca 317.933†	562.3	0.04837	mg/L	0.002805	0.04837	mg/L	0.002805	5.80%
Cd 228.802†	51.2	0.00263	mg/L	0.000298	0.00263	mg/L	0.000298	11.33%
Co 228.616†	68.4	0.00285	mg/L	0.000118	0.00285	mg/L	0.000118	4.14%
Cr 267.716†	25.4	0.00577	mg/L	0.001347	0.00577	mg/L	0.001347	23.36%
Cu 324.752†	696.8	0.00265	mg/L	0.001450	0.00265	mg/L	0.001450	54.69%
Fe 273.955†	43.3	0.04675	mg/L	0.000850	0.04675	mg/L	0.000850	1.82%
K 766.490†	687.2	0.4947	mg/L	0.01431	0.4947	mg/L	0.01431	2.89%
Mg 279.077†	38.3	0.05080	mg/L	0.003562	0.05080	mg/L	0.003562	7.01%
Mn 257.610†	23.6	0.00092	mg/L	0.000026	0.00092	mg/L	0.000026	2.83%
Mo 202.031†	83.0	0.00567	mg/L	0.000341	0.00567	mg/L	0.000341	6.01%
Na 589.592†	5283.9	0.4798	mg/L	0.01459	0.4798	mg/L	0.01459	3.04%
Na 330.237†	22.4	0.8435	mg/L	0.45269	0.8435	mg/L	0.45269	53.67%
Ni 231.604†	15.9	0.01223	mg/L	0.002656	0.01223	mg/L	0.002656	21.72%
Pb 220.353†	106.0	0.01846	mg/L	0.000301	0.01846	mg/L	0.000301	1.63%
Sb 206.836†	129.4	0.05338	mg/L	0.003680	0.05338	mg/L	0.003680	6.89%
Se 196.026†	58.0	0.05295	mg/L	0.004483	0.05295	mg/L	0.004483	8.47%
Si 288.158†	65.8	0.05232	mg/L	0.001131	0.05232	mg/L	0.001131	2.16%
Sn 189.927†	31.1	0.01027	mg/L	0.000322	0.01027	mg/L	0.000322	3.13%
Sr 421.552†	564.9	0.00097	mg/L	0.000074	0.00097	mg/L	0.000074	7.64%
Ti 334.903†	97.8	0.00506	mg/L	0.000114	0.00506	mg/L	0.000114	2.25%
Tl 190.801†	67.4	0.04880	mg/L	0.000562	0.04880	mg/L	0.000562	1.15%
V 292.402†	258.7	0.00298	mg/L	0.000132	0.00298	mg/L	0.000132	4.43%
Zn 206.200†	4.5	0.00997	mg/L	0.003187	0.00997	mg/L	0.003187	31.96%

User canceled analysis.

==========

Analysis Begun

Start Time: 8/12/2010 10:07:51 AM **Plasma On Time: 8/12/2010 8:37:11 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

==========

Sequence No.: 4 **Autosampler Location: 302**
Sample ID: ICSA **Date Collected: 8/12/2010 10:07:52 AM**
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1684930.4	100.6	%	1.59				1.58%
ScR 361.383	293237.2	107.9	%	0.58				0.54%
Ag 328.068†	-155.8	-0.00095	mg/L	0.000058	-0.00095	mg/L	0.000058	6.13%
Al 308.215†	223070.2	200.8	mg/L	1.65	200.8	mg/L	1.65	0.82%
As 188.979†	10.1	0.00594	mg/L	0.006633	0.00594	mg/L	0.006633	111.62%
B 249.677†	12.9	0.00422	mg/L	0.002197	0.00422	mg/L	0.002197	52.08%
Ba 233.527†	53.5	0.00160	mg/L	0.001934	0.00160	mg/L	0.001934	120.86%
Be 313.042†	-13.6	-0.00004	mg/L	0.000032	-0.00004	mg/L	0.000032	79.99%
Ca 317.933†	1154411.6	99.30	mg/L	0.934	99.30	mg/L	0.934	0.94%
Cd 228.802†	44.4	0.00240	mg/L	0.000129	0.00240	mg/L	0.000129	5.38%
Co 228.616†	48.3	-0.00040	mg/L	0.000009	-0.00040	mg/L	0.000009	2.39%
Cr 267.716†	29.0	0.00090	mg/L	0.000900	0.00090	mg/L	0.000900	99.49%
Cu 324.752†	-3365.8	-0.00128	mg/L	0.000443	-0.00128	mg/L	0.000443	34.62%
Fe 273.955†	178208.7	192.3	mg/L	1.33	192.3	mg/L	1.33	0.69%
K 766.490†	56.7	0.04085	mg/L	0.034890	0.04085	mg/L	0.034890	85.41%
Mg 279.077†	73978.8	97.94	mg/L	0.639	97.94	mg/L	0.639	0.65%
Mn 257.610†	42.0	0.00103	mg/L	0.000116	0.00103	mg/L	0.000116	11.28%
Mo 202.031†	86.3	0.00418	mg/L	0.000537	0.00418	mg/L	0.000537	12.85%
Na 589.592†	50.4	0.00458	mg/L	0.003034	0.00458	mg/L	0.003034	66.24%
Na 330.237†	4.7	0.7735	mg/L	0.41477	0.7735	mg/L	0.41477	53.62%
Ni 231.604†	1.5	0.00119	mg/L	0.000721	0.00119	mg/L	0.000721	60.55%
Pb 220.353†	-150.3	-0.00559	mg/L	0.001048	-0.00559	mg/L	0.001048	18.74%
Sb 206.836†	48.5	0.01980	mg/L	0.001873	0.01980	mg/L	0.001873	9.46%
Se 196.026†	54.7	0.04314	mg/L	0.006799	0.04314	mg/L	0.006799	15.76%
Si 288.158†	-26.8	-0.02128	mg/L	0.002056	-0.02128	mg/L	0.002056	9.66%
Sn 189.927†	-53.7	-0.01302	mg/L	0.003047	-0.01302	mg/L	0.003047	23.41%
Sr 421.552†	2072.8	0.00354	mg/L	0.000037	0.00354	mg/L	0.000037	1.06%
Ti 334.903†	169.6	0.00259	mg/L	0.001136	0.00259	mg/L	0.001136	43.90%
Tl 190.801†	-29.1	0.00784	mg/L	0.001693	0.00784	mg/L	0.001693	21.61%
V 292.402†	1988.2	0.00218	mg/L	0.000423	0.00218	mg/L	0.000423	19.43%
Zn 206.200†	0.0	-0.00550	mg/L	0.001775	-0.00550	mg/L	0.001775	32.26%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 8/12/2010 10:12:05 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1682814.9	100.5	%	0.41				0.41%
ScR 361.383	292914.7	107.8	%	1.61				1.49%
Ag 328.068†	165032.9	1.011	mg/L	0.0023	1.011	mg/L	0.0023	0.22%
Al 308.215†	222551.6	200.3	mg/L	2.16	200.3	mg/L	2.16	1.08%
As 188.979†	1170.4	1.013	mg/L	0.0097	1.013	mg/L	0.0097	0.95%
B 249.677†	18.8	0.00370	mg/L	0.002191	0.00370	mg/L	0.002191	59.20%
Ba 233.527†	2588.9	0.9554	mg/L	0.01606	0.9554	mg/L	0.01606	1.68%
Be 313.042†	471330.8	0.9723	mg/L	0.01052	0.9723	mg/L	0.01052	1.08%
Ca 317.933†	1157869.2	99.60	mg/L	1.024	99.60	mg/L	1.024	1.03%
Cd 228.802†	19253.8	1.050	mg/L	0.0091	1.050	mg/L	0.0091	0.86%
Co 228.616†	23357.5	0.9754	mg/L	0.00725	0.9754	mg/L	0.00725	0.74%
Cr 267.716†	4313.4	0.9735	mg/L	0.01427	0.9735	mg/L	0.01427	1.47%
Cu 324.752†	263759.4	1.017	mg/L	0.0043	1.017	mg/L	0.0043	0.43%
Fe 273.955†	177550.8	191.6	mg/L	2.77	191.6	mg/L	2.77	1.45%
K 766.490†	57.1	0.04111	mg/L	0.018425	0.04111	mg/L	0.018425	44.82%
Mg 279.077†	77568.3	102.7	mg/L	1.91	102.7	mg/L	1.91	1.86%
Mn 257.610†	23542.8	0.9119	mg/L	0.01574	0.9119	mg/L	0.01574	1.73%
Mo 202.031†	85.9	0.00415	mg/L	0.000443	0.00415	mg/L	0.000443	10.68%
Na 589.592†	35.3	0.00320	mg/L	0.003938	0.00320	mg/L	0.003938	122.95%
Na 330.237†	9.4	0.7293	mg/L	0.23947	0.7293	mg/L	0.23947	32.84%
Ni 231.604†	1246.3	0.9566	mg/L	0.01417	0.9566	mg/L	0.01417	1.48%
Pb 220.353†	5440.4	0.9681	mg/L	0.00725	0.9681	mg/L	0.00725	0.75%
Sb 206.836†	2549.3	1.043	mg/L	0.0069	1.043	mg/L	0.0069	0.66%
Se 196.026†	1146.7	1.040	mg/L	0.0178	1.040	mg/L	0.0178	1.71%
Si 288.158†	-23.5	-0.01499	mg/L	0.004886	-0.01499	mg/L	0.004886	32.60%
Sn 189.927†	-50.3	-0.01123	mg/L	0.001323	-0.01123	mg/L	0.001323	11.78%
Sr 421.552†	2054.9	0.00351	mg/L	0.000106	0.00351	mg/L	0.000106	3.00%
Ti 334.903†	153.7	0.00157	mg/L	0.000571	0.00157	mg/L	0.000571	36.43%
Tl 190.801†	1312.5	0.9752	mg/L	0.00324	0.9752	mg/L	0.00324	0.33%
V 292.402†	85527.2	0.9617	mg/L	0.00479	0.9617	mg/L	0.00479	0.50%
Zn 206.200†	427.4	0.9355	mg/L	0.01028	0.9355	mg/L	0.01028	1.10%

Sequence No.: 6
Sample ID: CV|

Autosampler Location: 7
Date Collected: 8/12/2010 10:18:26 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1725698.6	103.1	%	0.51				0.50%
ScR 361.383	290206.6	106.8	%	0.56				0.53%
Ag 328.068†	166397.3	1.019	mg/L	0.0041	1.019	mg/L	0.0041	0.40%
Al 308.215†	2420.6	2.147	mg/L	0.0206	2.147	mg/L	0.0206	0.96%
As 188.979†	2314.3	2.025	mg/L	0.0115	2.025	mg/L	0.0115	0.57%
B 249.677†	3054.6	0.9999	mg/L	0.00955	0.9999	mg/L	0.00955	0.96%
Ba 233.527†	2618.4	0.9848	mg/L	0.01094	0.9848	mg/L	0.01094	1.11%
Be 313.042†	473115.0	0.9760	mg/L	0.00368	0.9760	mg/L	0.00368	0.38%
Ca 317.933†	25075.3	2.157	mg/L	0.0204	2.157	mg/L	0.0204	0.95%
Cd 228.802†	18968.1	1.031	mg/L	0.0035	1.031	mg/L	0.0035	0.34%
Co 228.616†	23804.0	0.9949	mg/L	0.00316	0.9949	mg/L	0.00316	0.32%
Cr 267.716†	4436.9	1.008	mg/L	0.0102	1.008	mg/L	0.0102	1.01%
Cu 324.752†	262876.7	1.001	mg/L	0.0043	1.001	mg/L	0.0043	0.43%
Fe 273.955†	1895.1	2.040	mg/L	0.0197	2.040	mg/L	0.0197	0.96%
K 766.490†	29192.0	21.01	mg/L	0.217	21.01	mg/L	0.217	1.03%
Mg 279.077†	1583.4	2.104	mg/L	0.0346	2.104	mg/L	0.0346	1.65%
Mn 257.610†	24726.4	0.9586	mg/L	0.00910	0.9586	mg/L	0.00910	0.95%
Mo 202.031†	14575.0	0.9969	mg/L	0.00439	0.9969	mg/L	0.00439	0.44%
Na 589.592†	545717.4	49.55	mg/L	0.209	49.55	mg/L	0.209	0.42%
Na 330.237†	1432.6	54.13	mg/L	0.625	54.13	mg/L	0.625	1.15%
Ni 231.604†	1320.5	1.014	mg/L	0.0088	1.014	mg/L	0.0088	0.86%
Pb 220.353†	11545.8	2.011	mg/L	0.0114	2.011	mg/L	0.0114	0.57%
Sb 206.836†	4995.9	2.064	mg/L	0.0132	2.064	mg/L	0.0132	0.64%
Se 196.026†	2192.7	2.001	mg/L	0.0070	2.001	mg/L	0.0070	0.35%
Si 288.158†	2668.3	2.125	mg/L	0.0197	2.125	mg/L	0.0197	0.93%
Sn 189.927†	3021.2	0.9939	mg/L	0.00866	0.9939	mg/L	0.00866	0.87%
Sr 421.552†	591147.5	1.011	mg/L	0.0061	1.011	mg/L	0.0061	0.60%
Ti 334.903†	19935.1	1.031	mg/L	0.0093	1.031	mg/L	0.0093	0.90%
Tl 190.801†	2770.1	2.004	mg/L	0.0110	2.004	mg/L	0.0110	0.55%
V 292.402†	86038.7	0.9881	mg/L	0.00408	0.9881	mg/L	0.00408	0.41%
Zn 206.200†	457.2	1.006	mg/L	0.0108	1.006	mg/L	0.0108	1.07%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 8/12/2010 10:25:03 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1744249.8	104.2	%	0.46				0.44%
ScR 361.383	297235.2	109.4	%	0.67				0.61%
Ag 328.068†	-6.0	-0.00004	mg/L	0.000228	-0.00004	mg/L	0.000228	616.92%
Al 308.215†	8.0	0.00717	mg/L	0.003940	0.00717	mg/L	0.003940	54.96%
As 188.979†	-2.3	-0.00202	mg/L	0.001141	-0.00202	mg/L	0.001141	56.52%
B 249.677†	12.4	0.00407	mg/L	0.000993	0.00407	mg/L	0.000993	24.41%
Ba 233.527†	-0.5	-0.00018	mg/L	0.001231	-0.00018	mg/L	0.001231	679.66%
Be 313.042†	-6.6	-0.00001	mg/L	0.000035	-0.00001	mg/L	0.000035	254.39%
Ca 317.933†	12.6	0.00108	mg/L	0.000730	0.00108	mg/L	0.000730	67.38%
Cd 228.802†	5.1	0.00029	mg/L	0.000182	0.00029	mg/L	0.000182	63.50%
Co 228.616†	-6.3	-0.00026	mg/L	0.000291	-0.00026	mg/L	0.000291	110.69%
Cr 267.716†	-0.7	-0.00017	mg/L	0.000912	-0.00017	mg/L	0.000912	533.92%
Cu 324.752†	-124.7	-0.00048	mg/L	0.000114	-0.00048	mg/L	0.000114	23.95%
Fe 273.955†	-2.3	-0.00244	mg/L	0.004144	-0.00244	mg/L	0.004144	169.64%
K 766.490†	-28.0	-0.02017	mg/L	0.026197	-0.02017	mg/L	0.026197	129.86%
Mg 279.077†	4.2	0.00554	mg/L	0.004570	0.00554	mg/L	0.004570	82.53%
Mn 257.610†	-3.8	-0.00015	mg/L	0.000123	-0.00015	mg/L	0.000123	83.67%
Mo 202.031†	25.9	0.00177	mg/L	0.000340	0.00177	mg/L	0.000340	19.19%
Na 589.592†	-92.5	-0.00840	mg/L	0.001319	-0.00840	mg/L	0.001319	15.71%
Na 330.237†	11.3	0.4274	mg/L	0.15192	0.4274	mg/L	0.15192	35.55%
Ni 231.604†	0.5	0.00040	mg/L	0.002166	0.00040	mg/L	0.002166	535.49%
Pb 220.353†	5.8	0.00101	mg/L	0.000302	0.00101	mg/L	0.000302	29.87%
Sb 206.836†	4.2	0.00175	mg/L	0.001057	0.00175	mg/L	0.001057	60.50%
Se 196.026†	1.6	0.00143	mg/L	0.003092	0.00143	mg/L	0.003092	216.46%
Si 288.158†	-6.8	-0.00544	mg/L	0.002192	-0.00544	mg/L	0.002192	40.32%
Sn 189.927†	-0.5	-0.00018	mg/L	0.001002	-0.00018	mg/L	0.001002	560.70%
Sr 421.552†	-11.4	-0.00002	mg/L	0.000036	-0.00002	mg/L	0.000036	184.46%
Ti 334.903†	-0.3	-0.00002	mg/L	0.000476	-0.00002	mg/L	0.000476	>999.9%
Tl 190.801†	4.8	0.00345	mg/L	0.001358	0.00345	mg/L	0.001358	39.39%
V 292.402†	-6.8	-0.00008	mg/L	0.000192	-0.00008	mg/L	0.000192	251.12%
Zn 206.200†	-0.5	-0.00107	mg/L	0.000145	-0.00107	mg/L	0.000145	13.58%

Analysis Begun

Start Time: 8/12/2010 10:29:36 AM
Plasma On Time: 8/12/2010 8:37:11 AM
Logged In Analyst: metals
Technique: ICP Continuous
Spectrometer Model: Optima 7300 DV, S/N 077C8121202Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0812.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Autosampler Location: 304
Sample ID: RG85 MB1 SWC
Date Collected: 8/12/2010 10:29:37 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG85 MB1 SWC

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: RG85 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1754230.3	104.8	%	1.48				1.42%
ScR 361.383	300838.1	110.7	%	0.68				0.61%
Ag 328.068†	24.9	0.00015	mg/L	0.000100	0.00031	mg/L	0.000201	65.72%
Al 308.215†	8.2	0.00735	mg/L	0.005202	0.01470	mg/L	0.010403	70.77%
As 188.979†	-0.8	-0.00064	mg/L	0.001879	-0.00129	mg/L	0.003758	291.46%
B 249.677†	4.3	0.00140	mg/L	0.000941	0.00279	mg/L	0.001883	67.42%
Ba 233.527†	0.5	0.00021	mg/L	0.000750	0.00041	mg/L	0.001500	365.08%
Be 313.042†	-43.7	-0.00009	mg/L	0.000038	-0.00018	mg/L	0.000075	41.68%
Ca 317.933†	93.7	0.00806	mg/L	0.000188	0.01612	mg/L	0.000375	2.33%
Cd 228.802†	2.6	0.00014	mg/L	0.000069	0.00029	mg/L	0.000138	47.85%
Co 228.616†	-1.4	-0.00006	mg/L	0.000155	-0.00012	mg/L	0.000311	253.33%
Cr 267.716†	6.9	0.00156	mg/L	0.000439	0.00313	mg/L	0.000879	28.09%
Cu 324.752†	-187.9	-0.00072	mg/L	0.000240	-0.00143	mg/L	0.000480	33.52%
Fe 273.955†	0.5	0.00057	mg/L	0.002242	0.00114	mg/L	0.004484	393.31%
K 766.490†	4.1	0.00295	mg/L	0.010801	0.00590	mg/L	0.021602	366.26%
Mg 279.077†	3.8	0.00502	mg/L	0.007703	0.01005	mg/L	0.015406	153.33%
Mn 257.610†	-0.3	-0.00001	mg/L	0.000136	-0.00002	mg/L	0.000272	>999.9%
Mo 202.031†	1.4	0.00010	mg/L	0.000213	0.00020	mg/L	0.000425	217.92%
Na 589.592†	-37.7	-0.00342	mg/L	0.001149	-0.00684	mg/L	0.002298	33.58%
Na 330.237†	2.0	0.07622	mg/L	0.644892	0.1524	mg/L	1.28978	846.05%
Ni 231.604†	2.4	0.00180	mg/L	0.002627	0.00361	mg/L	0.005254	145.69%
Pb 220.353†	-2.4	-0.00042	mg/L	0.000640	-0.00084	mg/L	0.001279	152.13%
Sb 206.836†	-5.0	-0.00208	mg/L	0.001249	-0.00416	mg/L	0.002497	59.97%
Se 196.026†	-0.6	-0.00059	mg/L	0.002129	-0.00118	mg/L	0.004257	359.57%
Si 288.158†	-8.5	-0.00672	mg/L	0.004590	-0.01345	mg/L	0.009180	68.27%
Sn 189.927†	1.7	0.00055	mg/L	0.000575	0.00110	mg/L	0.001149	104.32%
Sr 421.552†	-4.8	-0.00001	mg/L	0.000041	-0.00002	mg/L	0.000083	501.41%
Ti 334.903†	17.2	0.00089	mg/L	0.000124	0.00178	mg/L	0.000249	13.94%
Tl 190.801†	3.6	0.00261	mg/L	0.002503	0.00523	mg/L	0.005006	95.74%
V 292.402†	-3.3	-0.00003	mg/L	0.000248	-0.00006	mg/L	0.000496	769.14%
Zn 206.200†	-0.1	-0.00032	mg/L	0.000616	-0.00065	mg/L	0.001232	189.54%

Sequence No.: 2
Sample ID: RI10 MB TWC

Autosampler Location: 305
Date Collected: 8/12/2010 10:33:50 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: RI10 MB TWC

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: RI10 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1745696.5	104.2	%	1.65				1.59%
ScR 361.383	301421.0	111.0	%	0.23				0.21%
Ag 328.068†	2.7	0.00002	mg/L	0.000137	0.00002	mg/L	0.000137	837.88%
Al 308.215†	11.0	0.00992	mg/L	0.001416	0.00992	mg/L	0.001416	14.28%
As 188.979†	-1.9	-0.00162	mg/L	0.002550	-0.00162	mg/L	0.002550	157.13%
B 249.677†	10.9	0.00357	mg/L	0.000580	0.00357	mg/L	0.000580	16.21%
Ba 233.527†	-1.5	-0.00055	mg/L	0.000517	-0.00055	mg/L	0.000517	93.23%
Be 313.042†	-46.3	-0.00010	mg/L	0.000025	-0.00010	mg/L	0.000025	25.93%
Ca 317.933†	149.7	0.01288	mg/L	0.001085	0.01288	mg/L	0.001085	8.43%
Cd 228.802†	6.1	0.00034	mg/L	0.000125	0.00034	mg/L	0.000125	36.80%
Co 228.616†	-6.6	-0.00028	mg/L	0.000149	-0.00028	mg/L	0.000149	53.72%
Cr 267.716†	11.8	0.00268	mg/L	0.000790	0.00268	mg/L	0.000790	29.48%
Cu 324.752†	-104.6	-0.00040	mg/L	0.000544	-0.00040	mg/L	0.000544	136.49%
Fe 273.955†	2.3	0.00243	mg/L	0.003483	0.00243	mg/L	0.003483	143.15%
K 766.490†	-14.5	-0.01041	mg/L	0.013565	-0.01041	mg/L	0.013565	130.33%
Mg 279.077†	-0.1	-0.00010	mg/L	0.010328	-0.00010	mg/L	0.010328	>999.9%
Mn 257.610†	0.1	0.00000	mg/L	0.000066	0.00000	mg/L	0.000066	>999.9%
Mo 202.031†	-2.4	-0.00017	mg/L	0.000205	-0.00017	mg/L	0.000205	123.69%
Na 589.592†	-37.3	-0.00339	mg/L	0.001727	-0.00339	mg/L	0.001727	51.01%
Na 330.237†	4.3	0.1610	mg/L	0.52200	0.1610	mg/L	0.52200	324.22%
Ni 231.604†	3.4	0.00259	mg/L	0.001270	0.00259	mg/L	0.001270	48.94%
Pb 220.353†	3.1	0.00055	mg/L	0.001236	0.00055	mg/L	0.001236	226.53%
Sb 206.836†	0.1	0.00001	mg/L	0.002002	0.00001	mg/L	0.002002	>999.9%
Se 196.026†	-0.2	-0.00022	mg/L	0.002314	-0.00022	mg/L	0.002314	>999.9%
Si 288.158†	-1.4	-0.00113	mg/L	0.008603	-0.00113	mg/L	0.008603	764.24%
Sn 189.927†	1.3	0.00042	mg/L	0.001185	0.00042	mg/L	0.001185	283.75%
Sr 421.552†	-6.4	-0.00001	mg/L	0.000027	-0.00001	mg/L	0.000027	249.55%
Ti 334.903†	8.8	0.00046	mg/L	0.000265	0.00046	mg/L	0.000265	58.13%
Tl 190.801†	-1.2	-0.00090	mg/L	0.000800	-0.00090	mg/L	0.000800	89.11%
V 292.402†	7.0	0.00009	mg/L	0.000127	0.00009	mg/L	0.000127	140.75%
Zn 206.200†	0.5	0.00117	mg/L	0.001775	0.00117	mg/L	0.001775	151.88%

Sequence No.: 3
Sample ID: RI10 A TWC

Autosampler Location: 306
Date Collected: 8/12/2010 10:38:02 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: RI10 A TWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RI10 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1748054.5	104.4	%	0.30				0.29%
ScR 361.383	300933.8	110.8	%	0.66				0.60%
Ag 328.068†	38.0	0.00002	mg/L	0.000102	0.00002	mg/L	0.000102	416.26%
Al 308.215†	1537.7	1.384	mg/L	0.0134	1.384	mg/L	0.0134	0.97%
As 188.979†	8.8	0.00769	mg/L	0.001295	0.00769	mg/L	0.001295	16.84%
B 249.677†	173.8	0.05700	mg/L	0.001890	0.05700	mg/L	0.001890	3.32%
Ba 233.527†	76.8	0.02844	mg/L	0.000453	0.02844	mg/L	0.000453	1.59%
Be 313.042†	-29.9	-0.00006	mg/L	0.000034	-0.00006	mg/L	0.000034	53.02%
Ca 317.933†	453725.6	39.03	mg/L	0.256	39.03	mg/L	0.256	0.66%
Cd 228.802†	6.7	0.00034	mg/L	0.000097	0.00034	mg/L	0.000097	28.48%
Co 228.616†	45.0	0.00175	mg/L	0.000121	0.00175	mg/L	0.000121	6.94%
Cr 267.716†	20.5	0.00182	mg/L	0.000560	0.00182	mg/L	0.000560	30.83%
Cu 324.752†	1157.7	0.00409	mg/L	0.000203	0.00409	mg/L	0.000203	4.97%
Fe 273.955†	1052.6	1.136	mg/L	0.0073	1.136	mg/L	0.0073	0.64%
K 766.490†	3712.5	2.672	mg/L	0.0197	2.672	mg/L	0.0197	0.74%
Mg 279.077†	12288.0	16.28	mg/L	0.213	16.28	mg/L	0.213	1.31%
Mn 257.610†	27752.5	1.075	mg/L	0.0101	1.075	mg/L	0.0101	0.94%
Mo 202.031†	58.2	0.00331	mg/L	0.000425	0.00331	mg/L	0.000425	12.85%
Na 589.592†	331999.3	30.15	mg/L	0.143	30.15	mg/L	0.143	0.47%
Na 330.237†	854.6	32.50	mg/L	0.122	32.50	mg/L	0.122	0.37%
Ni 231.604†	5.3	0.00405	mg/L	0.002268	0.00405	mg/L	0.002268	56.02%
Pb 220.353†	-18.7	-0.00309	mg/L	0.001187	-0.00309	mg/L	0.001187	38.38%
Sb 206.836†	2.9	0.00112	mg/L	0.001143	0.00112	mg/L	0.001143	101.69%
Se 196.026†	24.5	0.01968	mg/L	0.002018	0.01968	mg/L	0.002018	10.26%
Si 288.158†	20730.0	16.48	mg/L	0.446	16.48	mg/L	0.446	2.70%
Sn 189.927†	-29.6	-0.00787	mg/L	0.000589	-0.00787	mg/L	0.000589	7.49%
Sr 421.552†	161060.7	0.2754	mg/L	0.00045	0.2754	mg/L	0.00045	0.16%
Ti 334.903†	1352.3	0.06763	mg/L	0.000725	0.06763	mg/L	0.000725	1.07%
Tl 190.801†	10.3	0.00868	mg/L	0.002168	0.00868	mg/L	0.002168	24.99%
V 292.402†	423.2	0.00486	mg/L	0.000072	0.00486	mg/L	0.000072	1.49%
Zn 206.200†	9.0	0.01984	mg/L	0.001280	0.01984	mg/L	0.001280	6.45%

Sequence No.: 4
Sample ID: RG85 A SWC

Autosampler Location: 307
Date Collected: 8/12/2010 10:42:14 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG85 A SWC

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: RG85 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1768588.3	105.6	%	1.08				1.03%
ScR 361.383	307927.8	113.3	%	0.55				0.49%
Ag 328.068†	278.9	0.00161	mg/L	0.000038	0.00323	mg/L	0.000076	2.37%
Al 308.215†	58951.9	53.05	mg/L	0.463	106.1	mg/L	0.93	0.87%
As 188.979†	-4.9	0.05148	mg/L	0.002390	0.1030	mg/L	0.00478	4.64%
B 249.677†	106.8	0.03495	mg/L	0.001074	0.06991	mg/L	0.002148	3.07%
Ba 233.527†	2093.3	0.7708	mg/L	0.00795	1.542	mg/L	0.0159	1.03%
Be 313.042†	462.6	0.00075	mg/L	0.000022	0.00151	mg/L	0.000044	2.95%
Ca 317.933†	541037.5	46.54	mg/L	0.407	93.08	mg/L	0.814	0.87%
Cd 228.802†	241.2	0.01328	mg/L	0.000085	0.02655	mg/L	0.000170	0.64%
Co 228.616†	1050.4	0.03625	mg/L	0.000412	0.07249	mg/L	0.000824	1.14%
Cr 267.716†	759.2	0.1773	mg/L	0.00017	0.3545	mg/L	0.00034	0.10%
Cu 324.752†	139227.1	0.5416	mg/L	0.00761	1.083	mg/L	0.0152	1.40%
Fe 273.955†	165940.1	179.1	mg/L	1.33	358.1	mg/L	2.65	0.74%
K 766.490†	6126.4	4.410	mg/L	0.0331	8.820	mg/L	0.0661	0.75%
Mg 279.077†	15453.5	20.39	mg/L	0.135	40.77	mg/L	0.270	0.66%
Mn 257.610†	35703.6	1.384	mg/L	0.0083	2.768	mg/L	0.0167	0.60%
Mo 202.031†	650.9	0.04371	mg/L	0.000749	0.08743	mg/L	0.001499	1.71%
Na 589.592†	67425.9	6.123	mg/L	0.0543	12.25	mg/L	0.109	0.89%
Na 330.237†	177.8	7.166	mg/L	0.1130	14.33	mg/L	0.226	1.58%
Ni 231.604†	168.6	0.1293	mg/L	0.00282	0.2587	mg/L	0.00564	2.18%
Pb 220.353†	4634.0	0.8027	mg/L	0.00579	1.605	mg/L	0.0116	0.72%
Sb 206.836†	41.2	0.02063	mg/L	0.001441	0.04127	mg/L	0.002881	6.98%
Se 196.026†	18.8	0.01395	mg/L	0.002624	0.02791	mg/L	0.005249	18.81%
Si 288.158†	1803.8	1.434	mg/L	0.0376	2.869	mg/L	0.0751	2.62%
Sn 189.927†	93.7	0.03439	mg/L	0.000095	0.06879	mg/L	0.000189	0.28%
Sr 421.552†	224157.2	0.3833	mg/L	0.00390	0.7667	mg/L	0.00780	1.02%
Ti 334.903†	61198.0	3.168	mg/L	0.0227	6.336	mg/L	0.0455	0.72%
Tl 190.801†	-24.1	0.01031	mg/L	0.003939	0.02062	mg/L	0.007878	38.21%
V 292.402†	28100.0	0.3013	mg/L	0.00541	0.6025	mg/L	0.01083	1.80%
Zn 206.200†	1327.1	2.921	mg/L	0.0126	5.843	mg/L	0.0251	0.43%

Sequence No.: 5
Sample ID: RG85 B SWC

Dilution: 2X

Autosampler Location: 308
Date Collected: 8/12/2010 10:46:11 AM
Data Type: Original

As, Cu, Pb, Zn 8.12.10 VB

Nebulizer Parameters: RG85 B SWC

Analyte	Back Pressure	Flow
All	188.0 kPa	0.75 L/min

Mean Data: RG85 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1758767.0	105.0	%	0.86				0.82%
ScR 361.383	307513.6	113.2	%	1.70				1.50%
Ag 328.068†	320.8	0.00187	mg/L	0.000178	0.00374	mg/L	0.000355	9.50%
Al 308.215†	76402.0	68.75	mg/L	1.171	137.5	mg/L	2.34	1.70%
As 188.979†	-1.4	0.06360	mg/L	0.000849	0.1272	mg/L	0.00170	1.34%
B 249.677†	126.1	0.04128	mg/L	0.001820	0.08255	mg/L	0.003640	4.41%
Ba 233.527†	2435.0	0.8973	mg/L	0.01029	1.795	mg/L	0.0206	1.15%
Be 313.042†	514.0	0.00083	mg/L	0.000041	0.00167	mg/L	0.000082	4.91%
Ca 317.933†	723109.2	62.20	mg/L	0.817	124.4	mg/L	1.63	1.31%
Cd 228.802†	365.7	0.02009	mg/L	0.000265	0.04017	mg/L	0.000530	1.32%
Co 228.616†	1219.7	0.04215	mg/L	0.000550	0.08430	mg/L	0.001100	1.30%
Cr 267.716†	884.0	0.2059	mg/L	0.00189	0.4117	mg/L	0.00378	0.92%
Cu 324.752†	146479.0	0.5705	mg/L	0.00807	1.141	mg/L	0.0161	1.41%
Fe 273.955†	185813.3	200.5	mg/L	2.75	401.0	mg/L	5.49	1.37%
K 766.490†	7143.7	5.142	mg/L	0.0603	10.28	mg/L	0.121	1.17%
Mg 279.077†	18041.5	23.80	mg/L	0.342	47.61	mg/L	0.684	1.44%
Mn 257.610†	39121.6	1.517	mg/L	0.0226	3.033	mg/L	0.0451	1.49%
Mo 202.031†	774.0	0.05186	mg/L	0.000253	0.1037	mg/L	0.00051	0.49%
Na 589.592†	89089.0	8.090	mg/L	0.1315	16.18	mg/L	0.263	1.63%
Na 330.237†	233.4	9.440	mg/L	0.2390	18.88	mg/L	0.478	2.53%
Ni 231.604†	193.1	0.1481	mg/L	0.00128	0.2962	mg/L	0.00255	0.86%
Pb 220.353†	5639.4	0.9788	mg/L	0.01136	1.958	mg/L	0.0227	1.16%
Sb 206.836†	47.3	0.02361	mg/L	0.003920	0.04722	mg/L	0.007840	16.60%
Se 196.026†	29.2	0.02240	mg/L	0.005713	0.04480	mg/L	0.011427	25.51%
Si 288.158†	1252.1	0.9957	mg/L	0.00843	1.991	mg/L	0.0169	0.85%
Sn 189.927†	89.8	0.03406	mg/L	0.000719	0.06812	mg/L	0.001439	2.11%
Sr 421.552†	306710.3	0.5245	mg/L	0.00696	1.049	mg/L	0.0139	1.33%
Ti 334.903†	71393.1	3.695	mg/L	0.0488	7.391	mg/L	0.0976	1.32%
Tl 190.801†	-32.2	0.00779	mg/L	0.004271	0.01557	mg/L	0.008541	54.84%
V 292.402†	31246.2	0.3348	mg/L	0.00504	0.6695	mg/L	0.01009	1.51%
Zn 206.200†	1448.6	3.189	mg/L	0.0344	6.377	mg/L	0.0689	1.08%

Sequence No.: 7
Sample ID: RG85 MB1SPD SWC

Autosampler Location: 310
Date Collected: 8/12/2010 10:54:35 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG85 MB1SPD SWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RG85 MB1SPD SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1787801.7	106.8	%	0.67				0.63%
ScR 361.383	305301.6	112.4	%	1.34				1.19%
Ag 328.068†	85217.0	0.5218	mg/L	0.00766	1.044	mg/L	0.0153	1.47%
Al 308.215†	2353.9	2.109	mg/L	0.0226	4.218	mg/L	0.0451	1.07%
As 188.979†	2407.0	2.088	mg/L	0.0189	4.177	mg/L	0.0378	0.90%
B 249.677†	8.2	0.00142	mg/L	0.001538	0.00283	mg/L	0.003077	108.68%
Ba 233.527†	5252.9	1.976	mg/L	0.0286	3.953	mg/L	0.0571	1.45%
Be 313.042†	237344.3	0.4896	mg/L	0.00587	0.9792	mg/L	0.01175	1.20%
Ca 317.933†	121858.9	10.48	mg/L	0.119	20.96	mg/L	0.238	1.13%
Cd 228.802†	9573.1	0.5165	mg/L	0.00574	1.033	mg/L	0.0115	1.11%
Co 228.616†	11953.4	0.5001	mg/L	0.00577	1.000	mg/L	0.0115	1.15%
Cr 267.716†	2225.4	0.5041	mg/L	0.00721	1.008	mg/L	0.0144	1.43%
Cu 324.752†	123562.3	0.4708	mg/L	0.00532	0.9416	mg/L	0.01063	1.13%
Fe 273.955†	1938.4	2.089	mg/L	0.0309	4.178	mg/L	0.0617	1.48%
K 766.490†	14538.8	10.47	mg/L	0.153	20.93	mg/L	0.306	1.46%
Mg 279.077†	7711.5	10.22	mg/L	0.154	20.44	mg/L	0.308	1.51%
Mn 257.610†	12041.3	0.4670	mg/L	0.00458	0.9340	mg/L	0.00916	0.98%
Mo 202.031†	12.5	0.00067	mg/L	0.000122	0.00135	mg/L	0.000243	18.07%
Na 589.592†	106482.6	9.669	mg/L	0.1037	19.34	mg/L	0.207	1.07%
Na 330.237†	291.6	10.95	mg/L	0.117	21.89	mg/L	0.233	1.07%
Ni 231.604†	655.8	0.5030	mg/L	0.00457	1.006	mg/L	0.0091	0.91%
Pb 220.353†	11473.3	1.998	mg/L	0.0177	3.995	mg/L	0.0354	0.89%
Sb 206.836†	5.0	-0.00159	mg/L	0.001944	-0.00318	mg/L	0.003889	122.11%
Se 196.026†	2307.6	2.105	mg/L	0.0207	4.210	mg/L	0.0415	0.98%
Si 288.158†	0.8	0.00248	mg/L	0.008076	0.00496	mg/L	0.016151	325.43%
Sn 189.927†	-8.3	-0.00223	mg/L	0.000637	-0.00446	mg/L	0.001275	28.57%
Sr 421.552†	293222.8	0.5015	mg/L	0.00604	1.003	mg/L	0.0121	1.20%
Ti 334.903†	36.3	0.00114	mg/L	0.000399	0.00227	mg/L	0.000798	35.09%
Tl 190.801†	2807.1	2.029	mg/L	0.0202	4.059	mg/L	0.0404	1.00%
V 292.402†	43939.3	0.5044	mg/L	0.00190	1.009	mg/L	0.0038	0.38%
Zn 206.200†	229.0	0.5043	mg/L	0.00402	1.009	mg/L	0.0080	0.80%

Sequence No.: 8
Sample ID: RI10 MBSPK TWC

Autosampler Location: 311
Date Collected: 8/12/2010 10:58:47 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: RI10 MBSPK TWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RI10 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1776066.6	106.1	%	1.31				1.24%
ScR 361.383	304894.9	112.2	%	1.49				1.33%
Ag 328.068†	82304.9	0.5040	mg/L	0.00602	0.5040	mg/L	0.00602	1.19%
Al 308.215†	2282.2	2.045	mg/L	0.0161	2.045	mg/L	0.0161	0.79%
As 188.979†	2277.7	1.976	mg/L	0.0232	1.976	mg/L	0.0232	1.18%
B 249.677†	8.1	0.00143	mg/L	0.001207	0.00143	mg/L	0.001207	84.61%
Ba 233.527†	5067.8	1.907	mg/L	0.0167	1.907	mg/L	0.0167	0.88%
Be 313.042†	228221.6	0.4708	mg/L	0.00394	0.4708	mg/L	0.00394	0.84%
Ca 317.933†	117410.2	10.10	mg/L	0.137	10.10	mg/L	0.137	1.35%
Cd 228.802†	9130.7	0.4927	mg/L	0.00470	0.4927	mg/L	0.00470	0.95%
Co 228.616†	11569.3	0.4840	mg/L	0.00424	0.4840	mg/L	0.00424	0.88%
Cr 267.716†	2136.1	0.4839	mg/L	0.00460	0.4839	mg/L	0.00460	0.95%
Cu 324.752†	122375.9	0.4663	mg/L	0.00902	0.4663	mg/L	0.00902	1.93%
Fe 273.955†	1861.2	2.006	mg/L	0.0190	2.006	mg/L	0.0190	0.95%
K 766.490†	13910.4	10.01	mg/L	0.098	10.01	mg/L	0.098	0.98%
Mg 279.077†	7420.7	9.834	mg/L	0.1315	9.834	mg/L	0.1315	1.34%
Mn 257.610†	11562.2	0.4484	mg/L	0.00817	0.4484	mg/L	0.00817	1.82%
Mo 202.031†	13.4	0.00074	mg/L	0.000383	0.00074	mg/L	0.000383	51.45%
Na 589.592†	103015.6	9.354	mg/L	0.0765	9.354	mg/L	0.0765	0.82%
Na 330.237†	287.7	10.81	mg/L	0.143	10.81	mg/L	0.143	1.33%
Ni 231.604†	628.5	0.4820	mg/L	0.00668	0.4820	mg/L	0.00668	1.39%
Pb 220.353†	11073.7	1.928	mg/L	0.0325	1.928	mg/L	0.0325	1.69%
Sb 206.836†	4.7	-0.00152	mg/L	0.001880	-0.00152	mg/L	0.001880	123.65%
Se 196.026†	2099.6	1.915	mg/L	0.0285	1.915	mg/L	0.0285	1.49%
Si 288.158†	17.0	0.01524	mg/L	0.006696	0.01524	mg/L	0.006696	43.92%
Sn 189.927†	-11.5	-0.00330	mg/L	0.001822	-0.00330	mg/L	0.001822	55.21%
Sr 421.552†	283965.0	0.4856	mg/L	0.00268	0.4856	mg/L	0.00268	0.55%
Ti 334.903†	30.4	0.00086	mg/L	0.000429	0.00086	mg/L	0.000429	50.11%
Tl 190.801†	2714.7	1.963	mg/L	0.0314	1.963	mg/L	0.0314	1.60%
V 292.402†	43125.4	0.4950	mg/L	0.00851	0.4950	mg/L	0.00851	1.72%
Zn 206.200†	217.1	0.4781	mg/L	0.00735	0.4781	mg/L	0.00735	1.54%

Sequence No.: 9
Sample ID: CV 2

Autosampler Location: 7
Date Collected: 8/12/2010 11:02:59 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1763246.5	105.3	%	1.68				1.60%
ScR 361.383	308238.7	113.5	%	1.35				1.19%
Ag 328.068†	165444.3	1.013	mg/L	0.0227	1.013	mg/L	0.0227	2.24%
Al 308.215†	2311.6	2.049	mg/L	0.0303	2.049	mg/L	0.0303	1.48%
As 188.979†	2328.5	2.037	mg/L	0.0342	2.037	mg/L	0.0342	1.68%
B 249.677†	2957.7	0.9682	mg/L	0.01377	0.9682	mg/L	0.01377	1.42%
Ba 233.527†	2552.5	0.9600	mg/L	0.01112	0.9600	mg/L	0.01112	1.16%
Be 313.042†	459855.6	0.9486	mg/L	0.00810	0.9486	mg/L	0.00810	0.85%
Ca 317.933†	24084.9	2.072	mg/L	0.0190	2.072	mg/L	0.0190	0.92%
Cd 228.802†	18959.8	1.030	mg/L	0.0251	1.030	mg/L	0.0251	2.44%
Co 228.616†	23916.6	0.9997	mg/L	0.02340	0.9997	mg/L	0.02340	2.34%
Cr 267.716†	4322.1	0.9814	mg/L	0.01270	0.9814	mg/L	0.01270	1.29%
Cu 324.752†	261310.8	0.9949	mg/L	0.02180	0.9949	mg/L	0.02180	2.19%
Fe 273.955†	1828.8	1.968	mg/L	0.0265	1.968	mg/L	0.0265	1.35%
K 766.490†	28122.7	20.24	mg/L	0.245	20.24	mg/L	0.245	1.21%
Mg 279.077†	1532.4	2.036	mg/L	0.0270	2.036	mg/L	0.0270	1.33%
Mn 257.610†	23718.6	0.9195	mg/L	0.01092	0.9195	mg/L	0.01092	1.19%
Mo 202.031†	14581.9	0.9973	mg/L	0.01907	0.9973	mg/L	0.01907	1.91%
Na 589.592†	521420.5	47.35	mg/L	0.334	47.35	mg/L	0.334	0.71%
Na 330.237†	1381.8	52.20	mg/L	0.681	52.20	mg/L	0.681	1.31%
Ni 231.604†	1279.3	0.9825	mg/L	0.01681	0.9825	mg/L	0.01681	1.71%
Pb 220.353†	11594.3	2.019	mg/L	0.0388	2.019	mg/L	0.0388	1.92%
Sb 206.836†	4993.8	2.063	mg/L	0.0372	2.063	mg/L	0.0372	1.80%
Se 196.026†	2213.6	2.020	mg/L	0.0415	2.020	mg/L	0.0415	2.05%
Si 288.158†	2585.5	2.060	mg/L	0.0353	2.060	mg/L	0.0353	1.72%
Sn 189.927†	3047.8	1.003	mg/L	0.0182	1.003	mg/L	0.0182	1.81%
Sr 421.552†	575193.0	0.9837	mg/L	0.00670	0.9837	mg/L	0.00670	0.68%
Ti 334.903†	19193.2	0.9930	mg/L	0.00939	0.9930	mg/L	0.00939	0.95%
Tl 190.801†	2783.2	2.014	mg/L	0.0401	2.014	mg/L	0.0401	1.99%
V 292.402†	86135.2	0.9891	mg/L	0.02144	0.9891	mg/L	0.02144	2.17%
Zn 206.200†	446.0	0.9818	mg/L	0.01580	0.9818	mg/L	0.01580	1.61%

Sequence No.: 10
Sample ID: CB 2

Autosampler Location: 1
Date Collected: 8/12/2010 11:07:13 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1776815.2	106.1	%	0.67				0.63%
ScR 361.383	309648.8	114.0	%	0.82				0.72%
Ag 328.068†	-53.3	-0.00033	mg/L	0.000118	-0.00033	mg/L	0.000118	36.31%
Al 308.215†	2.6	0.00234	mg/L	0.004780	0.00234	mg/L	0.004780	204.30%
As 188.979†	-0.8	-0.00068	mg/L	0.000485	-0.00068	mg/L	0.000485	71.20%
B 249.677†	14.4	0.00472	mg/L	0.001779	0.00472	mg/L	0.001779	37.69%
Ba 233.527†	-0.3	-0.00012	mg/L	0.000718	-0.00012	mg/L	0.000718	595.85%
Be 313.042†	-27.0	-0.00006	mg/L	0.000028	-0.00006	mg/L	0.000028	51.09%
Ca 317.933†	-0.8	-0.00007	mg/L	0.001835	-0.00007	mg/L	0.001835	>999.9%
Cd 228.802†	5.0	0.00027	mg/L	0.000044	0.00027	mg/L	0.000044	16.11%
Co 228.616†	1.4	0.00006	mg/L	0.000174	0.00006	mg/L	0.000174	297.09%
Cr 267.716†	3.5	0.00079	mg/L	0.000377	0.00079	mg/L	0.000377	47.83%
Cu 324.752†	-163.4	-0.00062	mg/L	0.000346	-0.00062	mg/L	0.000346	55.45%
Fe 273.955†	-3.4	-0.00365	mg/L	0.001759	-0.00365	mg/L	0.001759	48.22%
K 766.490†	6.0	0.00429	mg/L	0.015740	0.00429	mg/L	0.015740	366.99%
Mg 279.077†	5.2	0.00687	mg/L	0.006064	0.00687	mg/L	0.006064	88.21%
Mn 257.610†	-1.7	-0.00007	mg/L	0.000098	-0.00007	mg/L	0.000098	145.70%
Mo 202.031†	24.2	0.00166	mg/L	0.000161	0.00166	mg/L	0.000161	9.70%
Na 589.592†	-81.2	-0.00738	mg/L	0.005204	-0.00738	mg/L	0.005204	70.53%
Na 330.237†	21.6	0.8171	mg/L	0.08094	0.8171	mg/L	0.08094	9.91%
Ni 231.604†	0.1	0.00007	mg/L	0.001702	0.00007	mg/L	0.001702	>999.9%
Pb 220.353†	7.8	0.00135	mg/L	0.002107	0.00135	mg/L	0.002107	155.68%
Sb 206.836†	3.4	0.00139	mg/L	0.001628	0.00139	mg/L	0.001628	116.96%
Se 196.026†	3.0	0.00272	mg/L	0.000967	0.00272	mg/L	0.000967	35.54%
Si 288.158†	2.6	0.00209	mg/L	0.006469	0.00209	mg/L	0.006469	308.86%
Sn 189.927†	1.0	0.00032	mg/L	0.000508	0.00032	mg/L	0.000508	156.78%
Sr 421.552†	-28.7	-0.00005	mg/L	0.000036	-0.00005	mg/L	0.000036	72.56%
Ti 334.903†	25.9	0.00134	mg/L	0.000948	0.00134	mg/L	0.000948	70.74%
Tl 190.801†	2.1	0.00155	mg/L	0.001285	0.00155	mg/L	0.001285	82.66%
V 292.402†	-3.8	-0.00004	mg/L	0.000065	-0.00004	mg/L	0.000065	162.27%
Zn 206.200†	0.2	0.00038	mg/L	0.002733	0.00038	mg/L	0.002733	718.14%

Analysis Begun

Start Time: 8/12/2010 11:11:58 AM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 8/12/2010 8:37:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0812A.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 1
Sample ID: RG94 MB1 SWC

Autosampler Location: 301
Date Collected: 8/12/2010 11:11:59 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 MB1 SWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RG94 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1766816.3	105.5	%	0.96				0.91%
ScR 361.383	309575.7	114.0	%	0.44				0.38%
Ag 328.068†	32.6	0.00020	mg/L	0.000174	0.00040	mg/L	0.000347	87.25%
Al 308.215†	213.8	0.1924	mg/L	0.00472	0.3848	mg/L	0.00944	2.45%
As 188.979†	-1.8	-0.00142	mg/L	0.000276	-0.00284	mg/L	0.000552	19.43%
B 249.677†	11.6	0.00380	mg/L	0.000214	0.00760	mg/L	0.000429	5.65%
Ba 233.527†	1.7	0.00062	mg/L	0.000434	0.00124	mg/L	0.000869	69.89%
Be 313.042†	-27.8	-0.00006	mg/L	0.000060	-0.00012	mg/L	0.000120	103.71%
Ca 317.933†	906.6	0.07799	mg/L	0.000667	0.1560	mg/L	0.00133	0.86%
Cd 228.802†	5.4	0.00030	mg/L	0.000097	0.00060	mg/L	0.000194	32.21%
Co 228.616†	-4.7	-0.00022	mg/L	0.000048	-0.00043	mg/L	0.000096	22.18%
Cr 267.716†	8.9	0.00202	mg/L	0.001769	0.00404	mg/L	0.003538	87.66%
Cu 324.752†	32.8	0.00014	mg/L	0.000418	0.00027	mg/L	0.000836	304.10%
Fe 273.955†	238.1	0.2569	mg/L	0.00090	0.5138	mg/L	0.00179	0.35%
K 766.490†	-5.7	-0.00408	mg/L	0.022951	-0.00815	mg/L	0.045901	562.99%
Mg 279.077†	72.1	0.09539	mg/L	0.003998	0.1908	mg/L	0.00800	4.19%
Mn 257.610†	122.0	0.00473	mg/L	0.000051	0.00945	mg/L	0.000102	1.08%
Mo 202.031†	0.1	0.00000	mg/L	0.000252	0.00001	mg/L	0.000505	>999.9%
Na 589.592†	2.0	0.00018	mg/L	0.003991	0.00036	mg/L	0.007982	>999.9%
Na 330.237†	18.1	0.6856	mg/L	0.40282	1.371	mg/L	0.8056	58.75%
Ni 231.604†	0.7	0.00056	mg/L	0.002639	0.00111	mg/L	0.005277	473.88%
Pb 220.353†	1.0	0.00019	mg/L	0.000601	0.00039	mg/L	0.001203	309.17%
Sb 206.836†	-1.4	-0.00059	mg/L	0.001137	-0.00118	mg/L	0.002273	192.10%
Se 196.026†	2.6	0.00237	mg/L	0.001495	0.00473	mg/L	0.002991	63.20%
Si 288.158†	9.1	0.00727	mg/L	0.005431	0.01455	mg/L	0.010862	74.66%
Sn 189.927†	0.7	0.00024	mg/L	0.000329	0.00049	mg/L	0.000657	134.14%
Sr 421.552†	234.1	0.00040	mg/L	0.000012	0.00080	mg/L	0.000025	3.10%
Ti 334.903†	189.6	0.00982	mg/L	0.000522	0.01964	mg/L	0.001044	5.32%
Tl 190.801†	0.2	0.00022	mg/L	0.001040	0.00044	mg/L	0.002080	471.07%
V 292.402†	39.6	0.00043	mg/L	0.000305	0.00086	mg/L	0.000611	71.26%
Zn 206.200†	1.3	0.00278	mg/L	0.004104	0.00556	mg/L	0.008207	147.56%

Sequence No.: 2
Sample ID: RG94 A SWC

Autosampler Location: 302
Date Collected: 8/12/2010 11:16:11 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 A SWC

Analyte	Back Pressure	Flow
A11	189.0 kPa	0.75 L/min

Mean Data: RG94 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1810915.6	108.1	%	0.29				0.27%
ScR 361.383	311999.2	114.8	%	2.33				2.03%
Ag 328.068†	55.8	0.00006	mg/L	0.000193	0.00012	mg/L	0.000386	324.95%
Al 308.215†	137149.8	123.4	mg/L	2.69	246.8	mg/L	5.38	2.18%
As 188.979†	-94.7	0.03229	mg/L	0.003119	0.06458	mg/L	0.006238	9.66%
B 249.677†	27.9	0.00892	mg/L	0.004268	0.01784	mg/L	0.008536	47.84%
Ba 233.527†	1263.7	0.4593	mg/L	0.00790	0.9187	mg/L	0.01580	1.72%
Be 313.042†	1226.7	0.00225	mg/L	0.000157	0.00449	mg/L	0.000315	7.01%
Ca 317.933†	543034.1	46.71	mg/L	1.224	93.42	mg/L	2.448	2.62%
Cd 228.802†	59.4	0.00379	mg/L	0.000241	0.00757	mg/L	0.000482	6.36%
Co 228.616†	2353.3	0.08544	mg/L	0.000442	0.1709	mg/L	0.00088	0.52%
Cr 267.716†	1600.0	0.3622	mg/L	0.00669	0.7243	mg/L	0.01339	1.85%
Cu 324.752†	47129.4	0.1879	mg/L	0.00103	0.3759	mg/L	0.00206	0.55%
Fe 273.955†	157519.7	170.0	mg/L	4.26	339.9	mg/L	8.52	2.51%
K 766.490†	8639.0	6.219	mg/L	0.1235	12.44	mg/L	0.247	1.99%
Mg 279.077†	48441.5	64.11	mg/L	1.661	128.2	mg/L	3.32	2.59%
Mn 257.610†	78923.4	3.058	mg/L	0.0768	6.116	mg/L	0.1536	2.51%
Mo 202.031†	75.0	0.00432	mg/L	0.000397	0.00864	mg/L	0.000793	9.18%
Na 589.592†	28054.6	2.547	mg/L	0.0549	5.095	mg/L	0.1098	2.16%
Na 330.237†	37.9	3.406	mg/L	0.4589	6.812	mg/L	0.9178	13.47%
Ni 231.604†	551.3	0.4228	mg/L	0.00609	0.8456	mg/L	0.01219	1.44%
Pb 220.353†	59.6	0.01987	mg/L	0.000889	0.03974	mg/L	0.001778	4.47%
Sb 206.836†	26.5	0.01662	mg/L	0.001056	0.03323	mg/L	0.002112	6.36%
Se 196.026†	36.5	0.03014	mg/L	0.002586	0.06028	mg/L	0.005173	8.58%
Si 288.158†	1977.3	1.572	mg/L	0.0363	3.145	mg/L	0.0727	2.31%
Sn 189.927†	-34.0	-0.00606	mg/L	0.001166	-0.01212	mg/L	0.002332	19.24%
Sr 421.552†	166030.6	0.2839	mg/L	0.00617	0.5679	mg/L	0.01234	2.17%
Ti 334.903†	123927.6	6.418	mg/L	0.1468	12.84	mg/L	0.294	2.29%
Tl 190.801†	-22.6	0.01117	mg/L	0.004688	0.02234	mg/L	0.009377	41.97%
V 292.402†	36126.6	0.3931	mg/L	0.00293	0.7863	mg/L	0.00586	0.75%
Zn 206.200†	145.8	0.3175	mg/L	0.00663	0.6350	mg/L	0.01326	2.09%

Sequence No.: 3
Sample ID: RG94 B SWC

Autosampler Location: 303
Date Collected: 8/12/2010 11:20:23 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 B SWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RG94 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1793611.5	107.1	%	1.03				0.96%
ScR 361.383	317096.9	116.7	%	0.49				0.42%
Ag 328.068†	-55.6	-0.00052	mg/L	0.000111	-0.00103	mg/L	0.000222	21.55%
Al 308.215†	98736.1	88.85	mg/L	0.793	177.7	mg/L	1.59	0.89%
As 188.979†	-102.0	0.00475	mg/L	0.002974	0.00951	mg/L	0.005947	62.56%
B 249.677†	36.6	0.01183	mg/L	0.001665	0.02365	mg/L	0.003329	14.08%
Ba 233.527†	862.8	0.3121	mg/L	0.00291	0.6241	mg/L	0.00583	0.93%
Be 313.042†	650.4	0.00112	mg/L	0.000046	0.00224	mg/L	0.000093	4.15%
Ca 317.933†	435864.6	37.49	mg/L	0.401	74.98	mg/L	0.802	1.07%
Cd 228.802†	29.8	0.00215	mg/L	0.000239	0.00431	mg/L	0.000478	11.11%
Co 228.616†	1791.4	0.06442	mg/L	0.000809	0.1288	mg/L	0.00162	1.26%
Cr 267.716†	1088.9	0.2455	mg/L	0.00222	0.4909	mg/L	0.00443	0.90%
Cu 324.752†	28918.2	0.1165	mg/L	0.00147	0.2329	mg/L	0.00294	1.26%
Fe 273.955†	122610.9	132.3	mg/L	1.22	264.6	mg/L	2.44	0.92%
K 766.490†	6769.6	4.873	mg/L	0.0540	9.746	mg/L	0.1080	1.11%
Mg 279.077†	42641.6	56.45	mg/L	0.551	112.9	mg/L	1.10	0.98%
Mn 257.610†	56636.9	2.195	mg/L	0.0167	4.389	mg/L	0.0333	0.76%
Mo 202.031†	54.5	0.00308	mg/L	0.000182	0.00615	mg/L	0.000365	5.93%
Na 589.592†	25825.7	2.345	mg/L	0.0150	4.690	mg/L	0.0299	0.64%
Na 330.237†	41.9	3.191	mg/L	0.2483	6.382	mg/L	0.4967	7.78%
Ni 231.604†	467.3	0.3584	mg/L	0.00751	0.7168	mg/L	0.01502	2.10%
Pb 220.353†	22.5	0.01006	mg/L	0.000271	0.02011	mg/L	0.000542	2.69%
Sb 206.836†	16.6	0.01197	mg/L	0.000885	0.02394	mg/L	0.001771	7.40%
Se 196.026†	28.2	0.02323	mg/L	0.005539	0.04646	mg/L	0.011077	23.85%
Si 288.158†	3630.6	2.887	mg/L	0.0130	5.774	mg/L	0.0260	0.45%
Sn 189.927†	-31.5	-0.00620	mg/L	0.000631	-0.01239	mg/L	0.001262	10.18%
Sr 421.552†	115832.8	0.1981	mg/L	0.00216	0.3962	mg/L	0.00431	1.09%
Ti 334.903†	100916.6	5.227	mg/L	0.0475	10.45	mg/L	0.095	0.91%
Tl 190.801†	-19.6	0.00709	mg/L	0.003096	0.01418	mg/L	0.006192	43.68%
V 292.402†	28069.9	0.3051	mg/L	0.00260	0.6103	mg/L	0.00520	0.85%
Zn 206.200†	112.4	0.2451	mg/L	0.00571	0.4901	mg/L	0.01141	2.33%

Sequence No.: 4
Sample ID: RG94 C SWC

Autosampler Location: 304
Date Collected: 8/12/2010 11:24:35 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 C SWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RG94 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1783425.7	106.5	%	0.65				0.61%
ScR 361.383	316156.9	116.4	%	1.36				1.17%
Ag 328.068†	-139.5	-0.00107	mg/L	0.000060	-0.00215	mg/L	0.000120	5.60%
Al 308.215†	160878.2	144.8	mg/L	2.29	289.5	mg/L	4.59	1.58%
As 188.979†	-176.9	0.00724	mg/L	0.002091	0.01448	mg/L	0.004182	28.89%
B 249.677†	50.1	0.01617	mg/L	0.000812	0.03234	mg/L	0.001624	5.02%
Ba 233.527†	1659.4	0.6067	mg/L	0.00898	1.213	mg/L	0.0180	1.48%
Be 313.042†	1037.5	0.00180	mg/L	0.000043	0.00360	mg/L	0.000086	2.39%
Ca 317.933†	564734.0	48.58	mg/L	0.908	97.15	mg/L	1.816	1.87%
Cd 228.802†	45.6	0.00327	mg/L	0.000260	0.00653	mg/L	0.000520	7.96%
Co 228.616†	2528.3	0.08821	mg/L	0.000709	0.1764	mg/L	0.00142	0.80%
Cr 267.716†	1467.4	0.3334	mg/L	0.00430	0.6669	mg/L	0.00860	1.29%
Cu 324.752†	42073.2	0.1691	mg/L	0.00279	0.3381	mg/L	0.00558	1.65%
Fe 273.955†	173322.8	187.0	mg/L	3.15	374.0	mg/L	6.30	1.68%
K 766.490†	11759.0	8.465	mg/L	0.1921	16.93	mg/L	0.384	2.27%
Mg 279.077†	44515.3	58.90	mg/L	1.114	117.8	mg/L	2.23	1.89%
Mn 257.610†	83735.1	3.244	mg/L	0.0453	6.489	mg/L	0.0906	1.40%
Mo 202.031†	71.1	0.00402	mg/L	0.000589	0.00804	mg/L	0.001178	14.66%
Na 589.592†	24213.7	2.199	mg/L	0.0301	4.397	mg/L	0.0601	1.37%
Na 330.237†	6.5	2.930	mg/L	0.1488	5.860	mg/L	0.2975	5.08%
Ni 231.604†	530.9	0.4072	mg/L	0.00430	0.8144	mg/L	0.00861	1.06%
Pb 220.353†	66.8	0.02352	mg/L	0.001500	0.04704	mg/L	0.003000	6.38%
Sb 206.836†	22.7	0.01881	mg/L	0.000604	0.03762	mg/L	0.001207	3.21%
Se 196.026†	39.2	0.03251	mg/L	0.004349	0.06503	mg/L	0.008698	13.38%
Si 288.158†	1671.6	1.329	mg/L	0.0256	2.658	mg/L	0.0513	1.93%
Sn 189.927†	-39.1	-0.00648	mg/L	0.002290	-0.01296	mg/L	0.004581	35.34%
Sr 421.552†	186172.5	0.3184	mg/L	0.00456	0.6368	mg/L	0.00912	1.43%
Ti 334.903†	173316.6	8.977	mg/L	0.1236	17.95	mg/L	0.247	1.38%
Tl 190.801†	-44.0	-0.00164	mg/L	0.008019	-0.00328	mg/L	0.016038	489.01%
V 292.402†	40343.1	0.4379	mg/L	0.00692	0.8759	mg/L	0.01385	1.58%
Zn 206.200†	160.1	0.3485	mg/L	0.00534	0.6971	mg/L	0.01069	1.53%

Sequence No.: 5
Sample ID: RG94 D SWC

Autosampler Location: 305
Date Collected: 8/12/2010 11:28:47 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 D SWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RG94 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1836583.3	109.7	%	0.76				0.69%
ScR 361.383	316417.2	116.5	%	0.39				0.33%
Ag 328.068†	-80.2	-0.00064	mg/L	0.000052	-0.00128	mg/L	0.000105	8.19%
Al 308.215†	112462.5	101.2	mg/L	1.17	202.4	mg/L	2.34	1.16%
As 188.979†	-140.9	0.00096	mg/L	0.002539	0.00193	mg/L	0.005079	263.18%
B 249.677†	31.3	0.01007	mg/L	0.001606	0.02015	mg/L	0.003212	15.94%
Ba 233.527†	1025.1	0.3716	mg/L	0.00165	0.7432	mg/L	0.00331	0.44%
Be 313.042†	723.1	0.00123	mg/L	0.000024	0.00246	mg/L	0.000048	1.97%
Ca 317.933†	566043.2	48.69	mg/L	0.646	97.38	mg/L	1.292	1.33%
Cd 228.802†	37.5	0.00267	mg/L	0.000159	0.00534	mg/L	0.000318	5.95%
Co 228.616†	1946.4	0.06789	mg/L	0.000528	0.1358	mg/L	0.00106	0.78%
Cr 267.716†	1476.9	0.3338	mg/L	0.00072	0.6676	mg/L	0.00143	0.21%
Cu 324.752†	28363.1	0.1148	mg/L	0.00091	0.2296	mg/L	0.00183	0.80%
Fe 273.955†	136953.0	147.8	mg/L	1.74	295.6	mg/L	3.48	1.18%
K 766.490†	8050.1	5.795	mg/L	0.0056	11.59	mg/L	0.011	0.10%
Mg 279.077†	44391.5	58.76	mg/L	0.504	117.5	mg/L	1.01	0.86%
Mn 257.610†	62149.9	2.408	mg/L	0.0252	4.816	mg/L	0.0503	1.05%
Mo 202.031†	59.6	0.00323	mg/L	0.000369	0.00646	mg/L	0.000738	11.42%
Na 589.592†	33159.3	3.011	mg/L	0.0259	6.022	mg/L	0.0517	0.86%
Na 330.237†	46.0	3.868	mg/L	0.2688	7.735	mg/L	0.5375	6.95%
Ni 231.604†	433.6	0.3325	mg/L	0.00332	0.6650	mg/L	0.00663	1.00%
Pb 220.353†	38.5	0.01403	mg/L	0.000578	0.02806	mg/L	0.001157	4.12%
Sb 206.836†	15.6	0.01288	mg/L	0.000616	0.02576	mg/L	0.001232	4.78%
Se 196.026†	37.7	0.03106	mg/L	0.008785	0.06211	mg/L	0.017571	28.29%
Si 288.158†	2266.6	1.802	mg/L	0.0153	3.605	mg/L	0.0306	0.85%
Sn 189.927†	-32.5	-0.00524	mg/L	0.001556	-0.01047	mg/L	0.003112	29.71%
Sr 421.552†	179788.3	0.3075	mg/L	0.00428	0.6149	mg/L	0.00855	1.39%
Ti 334.903†	133330.5	6.906	mg/L	0.0706	13.81	mg/L	0.141	1.02%
Tl 190.801†	-18.7	0.01016	mg/L	0.002139	0.02033	mg/L	0.004278	21.04%
V 292.402†	31326.6	0.3401	mg/L	0.00300	0.6803	mg/L	0.00600	0.88%
Zn 206.200†	122.5	0.2669	mg/L	0.00145	0.5338	mg/L	0.00290	0.54%

Sequence No.: 6
Sample ID: RG94 E SWC

Autosampler Location: 306
Date Collected: 8/12/2010 11:32:59 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 E SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1830536.7	109.3	%	0.88				0.80%
ScR 361.383	321241.1	118.2	%	1.25				1.06%
Ag 328.068†	26.4	-0.00068	mg/L	0.000204	-0.00137	mg/L	0.000408	29.82%
Al 308.215†	86673.0	77.99	mg/L	0.619	156.0	mg/L	1.24	0.79%
As 188.979†	-107.0	0.00552	mg/L	0.003773	0.01104	mg/L	0.007545	68.37%
B 249.677†	28.8	0.00928	mg/L	0.001634	0.01856	mg/L	0.003267	17.60%
Ba 233.527†	991.8	0.3613	mg/L	0.00505	0.7226	mg/L	0.01009	1.40%
Be 313.042†	564.4	0.00095	mg/L	0.000039	0.00189	mg/L	0.000079	4.17%
Ca 317.933†	527472.4	45.37	mg/L	0.433	90.74	mg/L	0.865	0.95%
Cd 228.802†	27.8	0.00207	mg/L	0.000173	0.00413	mg/L	0.000347	8.39%
Co 228.616†	1629.7	0.05725	mg/L	0.000468	0.1145	mg/L	0.00094	0.82%
Cr 267.716†	1039.4	0.2343	mg/L	0.00371	0.4685	mg/L	0.00742	1.58%
Cu 324.752†	21225.7	0.08656	mg/L	0.001323	0.1731	mg/L	0.00265	1.53%
Fe 273.955†	115180.6	124.3	mg/L	1.30	248.6	mg/L	2.60	1.05%
K 766.490†	5704.4	4.106	mg/L	0.0567	8.213	mg/L	0.1134	1.38%
Mg 279.077†	39275.4	51.99	mg/L	0.680	104.0	mg/L	1.36	1.31%
Mn 257.610†	145620.0	5.642	mg/L	0.0629	11.28	mg/L	0.126	1.12%
Mo 202.031†	80.4	0.00471	mg/L	0.000182	0.00942	mg/L	0.000364	3.86%
Na 589.592†	21600.6	1.961	mg/L	0.0135	3.923	mg/L	0.0270	0.69%
Na 330.237†	36.7	3.128	mg/L	0.2635	6.255	mg/L	0.5271	8.43%
Ni 231.604†	485.5	0.3723	mg/L	0.00466	0.7446	mg/L	0.00933	1.25%
Pb 220.353†	30.9	0.01025	mg/L	0.000811	0.02051	mg/L	0.001621	7.91%
Sb 206.836†	12.2	0.01059	mg/L	0.000829	0.02118	mg/L	0.001658	7.83%
Se 196.026†	32.7	0.02677	mg/L	0.003019	0.05355	mg/L	0.006037	11.27%
Si 288.158†	1449.1	1.152	mg/L	0.0207	2.305	mg/L	0.0413	1.79%
Sn 189.927†	-35.5	-0.00704	mg/L	0.001268	-0.01408	mg/L	0.002537	18.02%
Sr 421.552†	98677.4	0.1688	mg/L	0.00169	0.3375	mg/L	0.00339	1.00%
Ti 334.903†	106573.4	5.519	mg/L	0.0530	11.04	mg/L	0.106	0.96%
Tl 190.801†	-28.5	0.00282	mg/L	0.003494	0.00564	mg/L	0.006988	123.98%
V 292.402†	26683.2	0.2904	mg/L	0.00383	0.5809	mg/L	0.00765	1.32%
Zn 206.200†	101.4	0.2210	mg/L	0.00373	0.4420	mg/L	0.00746	1.69%

Sequence No.: 7
Sample ID: RG94 F SWC

Autosampler Location: 307
Date Collected: 8/12/2010 11:37:11 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 F SWC

Analyte	Back Pressure	Flow
All	189.0 kPa	0.75 L/min

Mean Data: RG94 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1830369.0	109.3	%	0.92				0.84%
ScR 361.383	315852.0	116.3	%	0.94				0.81%
Ag 328.068†	83.5	-0.00061	mg/L	0.000185	-0.00121	mg/L	0.000371	30.59%
Al 308.215†	87589.6	78.82	mg/L	0.748	157.6	mg/L	1.50	0.95%
As 188.979†	-108.3	0.00212	mg/L	0.004118	0.00425	mg/L	0.008235	193.85%
B 249.677†	39.0	0.01261	mg/L	0.005287	0.02522	mg/L	0.010575	41.94%
Ba 233.527†	1226.2	0.4490	mg/L	0.00402	0.8979	mg/L	0.00805	0.90%
Be 313.042†	605.4	0.00102	mg/L	0.000019	0.00204	mg/L	0.000038	1.86%
Ca 317.933†	502817.6	43.25	mg/L	0.555	86.50	mg/L	1.110	1.28%
Cd 228.802†	30.1	0.00217	mg/L	0.000075	0.00434	mg/L	0.000150	3.46%
Co 228.616†	1609.4	0.05653	mg/L	0.000588	0.1131	mg/L	0.00118	1.04%
Cr 267.716†	1071.2	0.2419	mg/L	0.00194	0.4837	mg/L	0.00388	0.80%
Cu 324.752†	22652.9	0.09249	mg/L	0.000914	0.1850	mg/L	0.00183	0.99%
Fe 273.955†	120686.7	130.2	mg/L	1.49	260.5	mg/L	2.99	1.15%
K 766.490†	6278.2	4.519	mg/L	0.0612	9.039	mg/L	0.1224	1.35%
Mg 279.077†	38870.7	51.45	mg/L	0.477	102.9	mg/L	0.95	0.93%
Mn 257.610†	181281.1	7.024	mg/L	0.0959	14.05	mg/L	0.192	1.37%
Mo 202.031†	75.8	0.00444	mg/L	0.000185	0.00887	mg/L	0.000370	4.17%
Na 589.592†	21769.8	1.977	mg/L	0.0200	3.954	mg/L	0.0399	1.01%
Na 330.237†	23.5	2.580	mg/L	0.0499	5.160	mg/L	0.0998	1.93%
Ni 231.604†	434.2	0.3330	mg/L	0.00364	0.6659	mg/L	0.00729	1.09%
Pb 220.353†	18.1	0.00775	mg/L	0.001409	0.01550	mg/L	0.002817	18.17%
Sb 206.836†	14.6	0.01138	mg/L	0.002973	0.02276	mg/L	0.005946	26.13%
Se 196.026†	32.5	0.02674	mg/L	0.003704	0.05349	mg/L	0.007407	13.85%
Si 288.158†	1313.0	1.044	mg/L	0.0090	2.088	mg/L	0.0180	0.86%
Sn 189.927†	-31.5	-0.00586	mg/L	0.000520	-0.01172	mg/L	0.001039	8.86%
Sr 421.552†	104661.7	0.1790	mg/L	0.00290	0.3580	mg/L	0.00579	1.62%
Ti 334.903†	104117.5	5.392	mg/L	0.0639	10.78	mg/L	0.128	1.18%
Tl 190.801†	-26.7	0.00630	mg/L	0.002998	0.01260	mg/L	0.005996	47.57%
V 292.402†	28208.3	0.3076	mg/L	0.00358	0.6151	mg/L	0.00716	1.16%
Zn 206.200†	100.8	0.2197	mg/L	0.00074	0.4395	mg/L	0.00148	0.34%

Sequence No.: 8
Sample ID: RG94 G SWC

Autosampler Location: 308
Date Collected: 8/12/2010 11:41:23 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 G SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1841635.2	110.0	%	0.46				0.42%
ScR 361.383	320862.6	118.1	%	0.62				0.53%
Ag 328.068†	0.2	-0.00007	mg/L	0.000246	-0.00013	mg/L	0.000492	365.16%
Al 308.215†	132345.7	119.1	mg/L	1.41	238.2	mg/L	2.82	1.18%
As 188.979†	-61.8	0.03912	mg/L	0.002172	0.07824	mg/L	0.004343	5.55%
B 249.677†	35.1	0.01142	mg/L	0.000194	0.02283	mg/L	0.000388	1.70%
Ba 233.527†	1744.6	0.6483	mg/L	0.00533	1.297	mg/L	0.0107	0.82%
Be 313.042†	817.6	0.00151	mg/L	0.000038	0.00301	mg/L	0.000076	2.53%
Ca 317.933†	407608.2	35.06	mg/L	0.471	70.12	mg/L	0.942	1.34%
Cd 228.802†	78.7	0.00462	mg/L	0.000069	0.00923	mg/L	0.000139	1.50%
Co 228.616†	1066.0	0.03465	mg/L	0.000504	0.06931	mg/L	0.001007	1.45%
Cr 267.716†	1136.4	0.2584	mg/L	0.00150	0.5168	mg/L	0.00301	0.58%
Cu 324.752†	22532.6	0.08950	mg/L	0.000317	0.1790	mg/L	0.00063	0.35%
Fe 273.955†	78952.5	85.19	mg/L	0.940	170.4	mg/L	1.88	1.10%
K 766.490†	4197.8	3.022	mg/L	0.0169	6.044	mg/L	0.0338	0.56%
Mg 279.077†	17816.6	23.57	mg/L	0.223	47.13	mg/L	0.445	0.95%
Mn 257.610†	39997.9	1.549	mg/L	0.0082	3.099	mg/L	0.0163	0.53%
Mo 202.031†	57.6	0.00333	mg/L	0.000311	0.00667	mg/L	0.000622	9.32%
Na 589.592†	13906.1	1.263	mg/L	0.0157	2.525	mg/L	0.0313	1.24%
Na 330.237†	5.0	1.767	mg/L	0.1125	3.535	mg/L	0.2250	6.37%
Ni 231.604†	278.3	0.2135	mg/L	0.00306	0.4269	mg/L	0.00613	1.44%
Pb 220.353†	596.0	0.1183	mg/L	0.00075	0.2367	mg/L	0.00150	0.63%
Sb 206.836†	7.9	0.00794	mg/L	0.001040	0.01588	mg/L	0.002079	13.09%
Se 196.026†	36.4	0.03080	mg/L	0.000352	0.06160	mg/L	0.000703	1.14%
Si 288.158†	2665.6	2.120	mg/L	0.0070	4.239	mg/L	0.0140	0.33%
Sn 189.927†	-19.3	-0.00234	mg/L	0.001146	-0.00468	mg/L	0.002293	48.97%
Sr 421.552†	138176.4	0.2363	mg/L	0.00183	0.4726	mg/L	0.00366	0.78%
Ti 334.903†	100306.0	5.195	mg/L	0.0528	10.39	mg/L	0.106	1.02%
Tl 190.801†	-7.5	0.00834	mg/L	0.002942	0.01668	mg/L	0.005885	35.29%
V 292.402†	20889.6	0.2280	mg/L	0.00107	0.4561	mg/L	0.00214	0.47%
Zn 206.200†	122.7	0.2669	mg/L	0.00421	0.5338	mg/L	0.00842	1.58%

Sequence No.: 9
Sample ID: RG94 I SWC

Autosampler Location: 309
Date Collected: 8/12/2010 11:45:35 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 I SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1844294.1	110.1	%	0.65				0.59%
ScR 361.383	323004.8	118.9	%	1.23				1.03%
Ag 328.068†	-83.8	-0.00051	mg/L	0.000073	-0.00103	mg/L	0.000145	14.15%
Al 308.215†	142903.5	128.6	mg/L	1.90	257.2	mg/L	3.79	1.47%
As 188.979†	-164.5	0.01948	mg/L	0.005720	0.03897	mg/L	0.011439	29.36%
B 249.677†	52.9	0.01712	mg/L	0.001912	0.03424	mg/L	0.003823	11.16%
Ba 233.527†	1414.1	0.5158	mg/L	0.00892	1.032	mg/L	0.0178	1.73%
Be 313.042†	953.5	0.00164	mg/L	0.000060	0.00328	mg/L	0.000119	3.63%
Ca 317.933†	611120.6	52.57	mg/L	0.894	105.1	mg/L	1.79	1.70%
Cd 228.802†	44.6	0.00312	mg/L	0.000325	0.00624	mg/L	0.000649	10.42%
Co 228.616†	2192.7	0.07423	mg/L	0.001428	0.1485	mg/L	0.00286	1.92%
Cr 267.716†	1718.3	0.3897	mg/L	0.00471	0.7794	mg/L	0.00941	1.21%
Cu 324.752†	41285.6	0.1649	mg/L	0.00175	0.3297	mg/L	0.00350	1.06%
Fe 273.955†	158298.8	170.8	mg/L	2.63	341.6	mg/L	5.27	1.54%
K 766.490†	9425.3	6.785	mg/L	0.0749	13.57	mg/L	0.150	1.10%
Mg 279.077†	44160.6	58.44	mg/L	0.561	116.9	mg/L	1.12	0.96%
Mn 257.610†	54688.2	2.119	mg/L	0.0203	4.238	mg/L	0.0406	0.96%
Mo 202.031†	66.8	0.00366	mg/L	0.000341	0.00732	mg/L	0.000681	9.31%
Na 589.592†	27158.4	2.466	mg/L	0.0375	4.932	mg/L	0.0750	1.52%
Na 330.237†	16.0	3.345	mg/L	0.1633	6.690	mg/L	0.3266	4.88%
Ni 231.604†	412.5	0.3164	mg/L	0.00234	0.6327	mg/L	0.00468	0.74%
Pb 220.353†	87.6	0.02565	mg/L	0.000860	0.05130	mg/L	0.001721	3.35%
Sb 206.836†	16.5	0.01564	mg/L	0.003460	0.03127	mg/L	0.006921	22.13%
Se 196.026†	39.4	0.03240	mg/L	0.005751	0.06480	mg/L	0.011501	17.75%
Si 288.158†	1281.8	1.019	mg/L	0.0143	2.038	mg/L	0.0287	1.41%
Sn 189.927†	-37.1	-0.00559	mg/L	0.000118	-0.01118	mg/L	0.000236	2.11%
Sr 421.552†	189156.0	0.3235	mg/L	0.00510	0.6470	mg/L	0.01020	1.58%
Ti 334.903†	175143.3	9.072	mg/L	0.1424	18.14	mg/L	0.285	1.57%
Tl 190.801†	-34.9	0.00151	mg/L	0.003993	0.00302	mg/L	0.007986	264.18%
V 292.402†	38138.7	0.4145	mg/L	0.00669	0.8290	mg/L	0.01338	1.61%
Zn 206.200†	148.0	0.3222	mg/L	0.00685	0.6444	mg/L	0.01371	2.13%

Sequence No.: 10
Sample ID: RG94 MB1SPK SWC

Autosampler Location: 310
Date Collected: 8/12/2010 11:49:49 AM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 MB1SPK SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1831233.7	109.4	%	0.20				0.19%
ScR 361.383	315546.8	116.2	%	1.29				1.11%
Ag 328.068†	84914.6	0.5200	mg/L	0.00085	1.040	mg/L	0.0017	0.16%
Al 308.215†	2338.5	2.095	mg/L	0.0142	4.190	mg/L	0.0284	0.68%
As 188.979†	2457.0	2.132	mg/L	0.0032	4.263	mg/L	0.0063	0.15%
B 249.677†	10.8	0.00224	mg/L	0.000898	0.00447	mg/L	0.001797	40.16%
Ba 233.527†	5278.3	1.986	mg/L	0.0268	3.972	mg/L	0.0535	1.35%
Be 313.042†	241214.6	0.4976	mg/L	0.00436	0.9952	mg/L	0.00873	0.88%
Ca 317.933†	119362.8	10.27	mg/L	0.089	20.53	mg/L	0.178	0.87%
Cd 228.802†	9638.8	0.5199	mg/L	0.00221	1.040	mg/L	0.0044	0.42%
Co 228.616†	12239.9	0.5121	mg/L	0.00337	1.024	mg/L	0.0067	0.66%
Cr 267.716†	2232.0	0.5056	mg/L	0.00551	1.011	mg/L	0.0110	1.09%
Cu 324.752†	123951.4	0.4723	mg/L	0.00139	0.9446	mg/L	0.00278	0.29%
Fe 273.955†	1964.2	2.117	mg/L	0.0285	4.233	mg/L	0.0570	1.35%
K 766.490†	14684.8	10.57	mg/L	0.084	21.14	mg/L	0.168	0.80%
Mg 279.077†	7816.0	10.36	mg/L	0.114	20.72	mg/L	0.228	1.10%
Mn 257.610†	12082.1	0.4686	mg/L	0.00546	0.9372	mg/L	0.01092	1.17%
Mo 202.031†	13.5	0.00075	mg/L	0.000400	0.00150	mg/L	0.000801	53.52%
Na 589.592†	103815.4	9.427	mg/L	0.0853	18.85	mg/L	0.171	0.90%
Na 330.237†	288.7	10.84	mg/L	0.329	21.67	mg/L	0.657	3.03%
Ni 231.604†	655.4	0.5026	mg/L	0.00692	1.005	mg/L	0.0138	1.38%
Pb 220.353†	11771.6	2.049	mg/L	0.0053	4.099	mg/L	0.0105	0.26%
Sb 206.836†	-2.2	-0.00451	mg/L	0.001193	-0.00902	mg/L	0.002387	26.47%
Se 196.026†	2335.6	2.131	mg/L	0.0058	4.261	mg/L	0.0117	0.27%
Si 288.158†	-4.1	-0.00137	mg/L	0.003713	-0.00275	mg/L	0.007426	270.12%
Sn 189.927†	-8.6	-0.00235	mg/L	0.000642	-0.00470	mg/L	0.001285	27.36%
Sr 421.552†	295010.0	0.5045	mg/L	0.00452	1.009	mg/L	0.0090	0.90%
Ti 334.903†	81.5	0.00349	mg/L	0.000336	0.00698	mg/L	0.000673	9.64%
Tl 190.801†	2857.3	2.066	mg/L	0.0049	4.132	mg/L	0.0097	0.23%
V 292.402†	44746.7	0.5136	mg/L	0.00124	1.027	mg/L	0.0025	0.24%
Zn 206.200†	233.3	0.5138	mg/L	0.00936	1.028	mg/L	0.0187	1.82%

Sequence No.: 11
Sample ID: CV

Autosampler Location: 7
Date Collected: 8/12/2010 11:54:01 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	1819288.2	108.6	%	0.28				0.26%
ScR 361.383	310562.3	114.3	%	1.61				1.41%
Ag 328.068†	164162.2	1.005	mg/L	0.0055	1.005	mg/L	0.0055	0.54%
Al 308.215†	2358.7	2.091	mg/L	0.0282	2.091	mg/L	0.0282	1.35%
As 188.979†	2376.6	2.079	mg/L	0.0113	2.079	mg/L	0.0113	0.54%
B 249.677†	3038.1	0.9945	mg/L	0.01701	0.9945	mg/L	0.01701	1.71%
Ba 233.527†	2646.5	0.9953	mg/L	0.01741	0.9953	mg/L	0.01741	1.75%
Be 313.042†	478518.6	0.9871	mg/L	0.01711	0.9871	mg/L	0.01711	1.73%
Ca 317.933†	25162.3	2.164	mg/L	0.0281	2.164	mg/L	0.0281	1.30%
Cd 228.802†	18958.5	1.030	mg/L	0.0051	1.030	mg/L	0.0051	0.50%
Co 228.616†	24254.9	1.014	mg/L	0.0021	1.014	mg/L	0.0021	0.21%
Cr 267.716†	4504.4	1.023	mg/L	0.0173	1.023	mg/L	0.0173	1.69%
Cu 324.752†	258925.8	0.9858	mg/L	0.00011	0.9858	mg/L	0.00011	0.01%
Fe 273.955†	1900.3	2.045	mg/L	0.0295	2.045	mg/L	0.0295	1.44%
K 766.490†	29232.6	21.04	mg/L	0.398	21.04	mg/L	0.398	1.89%
Mg 279.077†	1586.1	2.107	mg/L	0.0361	2.107	mg/L	0.0361	1.71%
Mn 257.610†	24544.7	0.9515	mg/L	0.01386	0.9515	mg/L	0.01386	1.46%
Mo 202.031†	14756.2	1.009	mg/L	0.0040	1.009	mg/L	0.0040	0.40%
Na 589.592†	519592.8	47.18	mg/L	0.602	47.18	mg/L	0.602	1.28%
Na 330.237†	1409.2	53.23	mg/L	1.144	53.23	mg/L	1.144	2.15%
Ni 231.604†	1338.8	1.028	mg/L	0.0179	1.028	mg/L	0.0179	1.74%
Pb 220.353†	11818.6	2.058	mg/L	0.0077	2.058	mg/L	0.0077	0.38%
Sb 206.836†	5045.5	2.085	mg/L	0.0060	2.085	mg/L	0.0060	0.29%
Se 196.026†	2253.7	2.056	mg/L	0.0020	2.056	mg/L	0.0020	0.10%
Si 288.158†	2643.2	2.105	mg/L	0.0476	2.105	mg/L	0.0476	2.26%
Sn 189.927†	3100.3	1.020	mg/L	0.0044	1.020	mg/L	0.0044	0.43%
Sr 421.552†	590155.0	1.009	mg/L	0.0123	1.009	mg/L	0.0123	1.22%
Ti 334.903†	19767.4	1.023	mg/L	0.0146	1.023	mg/L	0.0146	1.43%
Tl 190.801†	2823.7	2.043	mg/L	0.0147	2.043	mg/L	0.0147	0.72%
V 292.402†	87234.9	1.002	mg/L	0.0098	1.002	mg/L	0.0098	0.98%
Zn 206.200†	474.6	1.045	mg/L	0.0228	1.045	mg/L	0.0228	2.19%

Sequence No.: 12
Sample ID: CB

Autosampler Location: 1
Date Collected: 8/12/2010 11:58:15 AM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1808877.5	108.0	%	1.07				0.99%
ScR 361.383	314558.6	115.8	%	0.91				0.79%
Ag 328.068†	4.0	0.00002	mg/L	0.000171	0.00002	mg/L	0.000171	700.08%
Al 308.215†	11.7	0.01055	mg/L	0.004551	0.01055	mg/L	0.004551	43.13%
As 188.979†	1.1	0.00098	mg/L	0.001897	0.00098	mg/L	0.001897	193.34%
B 249.677†	9.5	0.00311	mg/L	0.000843	0.00311	mg/L	0.000843	27.16%
Ba 233.527†	1.9	0.00072	mg/L	0.000432	0.00072	mg/L	0.000432	60.00%
Be 313.042†	32.5	0.00007	mg/L	0.000066	0.00007	mg/L	0.000066	99.32%
Ca 317.933†	3.7	0.00032	mg/L	0.003000	0.00032	mg/L	0.003000	944.53%
Cd 228.802†	2.3	0.00012	mg/L	0.000144	0.00012	mg/L	0.000144	119.18%
Co 228.616†	1.7	0.00007	mg/L	0.000157	0.00007	mg/L	0.000157	218.50%
Cr 267.716†	3.2	0.00072	mg/L	0.001070	0.00072	mg/L	0.001070	149.39%
Cu 324.752†	-80.4	-0.00031	mg/L	0.000390	-0.00031	mg/L	0.000390	126.91%
Fe 273.955†	-0.2	-0.00021	mg/L	0.001080	-0.00021	mg/L	0.001080	513.29%
K 766.490†	-27.1	-0.01948	mg/L	0.021013	-0.01948	mg/L	0.021013	107.86%
Mg 279.077†	2.5	0.00328	mg/L	0.005027	0.00328	mg/L	0.005027	153.37%
Mn 257.610†	-0.9	-0.00003	mg/L	0.000166	-0.00003	mg/L	0.000166	484.15%
Mo 202.031†	22.5	0.00154	mg/L	0.000607	0.00154	mg/L	0.000607	39.41%
Na 589.592†	-168.3	-0.01529	mg/L	0.005611	-0.01529	mg/L	0.005611	36.71%
Na 330.237†	3.0	0.1143	mg/L	0.43222	0.1143	mg/L	0.43222	378.21%
Ni 231.604†	1.8	0.00136	mg/L	0.001405	0.00136	mg/L	0.001405	103.25%
Pb 220.353†	-0.8	-0.00013	mg/L	0.000829	-0.00013	mg/L	0.000829	631.41%
Sb 206.836†	-3.4	-0.00140	mg/L	0.000821	-0.00140	mg/L	0.000821	58.53%
Se 196.026†	4.6	0.00418	mg/L	0.007005	0.00418	mg/L	0.007005	167.71%
Si 288.158†	4.8	0.00382	mg/L	0.000606	0.00382	mg/L	0.000606	15.86%
Sn 189.927†	3.3	0.00109	mg/L	0.000797	0.00109	mg/L	0.000797	73.14%
Sr 421.552†	42.5	0.00007	mg/L	0.000035	0.00007	mg/L	0.000035	47.97%
Ti 334.903†	9.8	0.00051	mg/L	0.000486	0.00051	mg/L	0.000486	95.76%
Tl 190.801†	4.5	0.00329	mg/L	0.000944	0.00329	mg/L	0.000944	28.66%
V 292.402†	21.1	0.00025	mg/L	0.000106	0.00025	mg/L	0.000106	43.24%
Zn 206.200†	1.0	0.00210	mg/L	0.002324	0.00210	mg/L	0.002324	110.58%

User canceled analysis.

==========

Analysis Begun

Start Time: 8/12/2010 12:02:55 PM **Plasma On Time: 8/12/2010 8:37:11 AM**
Logged In Analyst: metals **Technique: ICP Continuous**
Spectrometer Model: Optima 7300 DV, S/N 077C8121202 **Autosampler Model: AS-93plus**

Sample Information File: C:\pe\metals\Sample Information\0812A.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

==========

Sequence No.: 13 **Autosampler Location: 311**
Sample ID: RG94 MB2 TWC **Date Collected: 8/12/2010 12:02:56 PM**
Data Type: Original

Dilution: 1X

Nebulizer Parameters: RG94 MB2 TWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 MB2 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1832204.3	109.4	%	0.66				0.60%
ScR 361.383	322352.7	118.7	%	0.86				0.72%
Ag 328.068†	-18.5	-0.00011	mg/L	0.000335	-0.00011	mg/L	0.000335	295.50%
Al 308.215†	15.7	0.01415	mg/L	0.003448	0.01415	mg/L	0.003448	24.37%
As 188.979†	-2.8	-0.00243	mg/L	0.001552	-0.00243	mg/L	0.001552	63.78%
B 249.677†	8.3	0.00272	mg/L	0.001462	0.00272	mg/L	0.001462	53.66%
Ba 233.527†	-1.8	-0.00068	mg/L	0.000812	-0.00068	mg/L	0.000812	118.54%
Be 313.042†	-20.7	-0.00004	mg/L	0.000045	-0.00004	mg/L	0.000045	105.87%
Ca 317.933†	132.3	0.01138	mg/L	0.001558	0.01138	mg/L	0.001558	13.69%
Cd 228.802†	3.9	0.00022	mg/L	0.000149	0.00022	mg/L	0.000149	67.60%
Co 228.616†	-3.5	-0.00015	mg/L	0.000163	-0.00015	mg/L	0.000163	112.54%
Cr 267.716†	5.6	0.00127	mg/L	0.000193	0.00127	mg/L	0.000193	15.14%
Cu 324.752†	-22.5	-0.00009	mg/L	0.000128	-0.00009	mg/L	0.000128	150.14%
Fe 273.955†	2.1	0.00226	mg/L	0.000899	0.00226	mg/L	0.000899	39.74%
K 766.490†	1.7	0.00121	mg/L	0.037592	0.00121	mg/L	0.037592	>999.9%
Mg 279.077†	4.6	0.00611	mg/L	0.005984	0.00611	mg/L	0.005984	97.94%
Mn 257.610†	-0.9	-0.00004	mg/L	0.000119	-0.00004	mg/L	0.000119	332.27%
Mo 202.031†	-5.3	-0.00036	mg/L	0.000141	-0.00036	mg/L	0.000141	39.06%
Na 589.592†	-171.9	-0.01561	mg/L	0.002528	-0.01561	mg/L	0.002528	16.19%
Na 330.237†	13.2	0.5002	mg/L	0.35987	0.5002	mg/L	0.35987	71.95%
Ni 231.604†	1.2	0.00090	mg/L	0.000663	0.00090	mg/L	0.000663	73.76%
Pb 220.353†	2.6	0.00045	mg/L	0.000833	0.00045	mg/L	0.000833	185.05%
Sb 206.836†	-5.9	-0.00244	mg/L	0.000721	-0.00244	mg/L	0.000721	29.57%
Se 196.026†	4.1	0.00373	mg/L	0.003274	0.00373	mg/L	0.003274	87.68%
Si 288.158†	3.2	0.00258	mg/L	0.002120	0.00258	mg/L	0.002120	82.11%
Sn 189.927†	1.3	0.00041	mg/L	0.000722	0.00041	mg/L	0.000722	174.40%
Sr 421.552†	-55.8	-0.00010	mg/L	0.000084	-0.00010	mg/L	0.000084	87.73%
Ti 334.903†	2.9	0.00015	mg/L	0.000519	0.00015	mg/L	0.000519	345.07%
Tl 190.801†	3.7	0.00265	mg/L	0.001607	0.00265	mg/L	0.001607	60.57%
V 292.402†	8.3	0.00010	mg/L	0.000394	0.00010	mg/L	0.000394	393.65%
Zn 206.200†	-0.4	-0.00080	mg/L	0.002130	-0.00080	mg/L	0.002130	265.06%

Sequence No.: 14
Sample ID: RG94 HDUP SWC

Autosampler Location: 312
Date Collected: 8/12/2010 12:07:09 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 HDUP SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 HDUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1859487.7	111.0	%	1.72				1.54%
ScR 361.383	326309.3	120.1	%	0.73				0.61%
Ag 328.068†	-66.3	-0.00032	mg/L	0.000118	-0.00065	mg/L	0.000236	36.50%
Al 308.215†	118813.1	106.9	mg/L	0.91	213.8	mg/L	1.82	0.85%
As 188.979†	-126.1	0.00916	mg/L	0.001737	0.01833	mg/L	0.003473	18.95%
B 249.677†	39.0	0.01266	mg/L	0.003245	0.02532	mg/L	0.006490	25.63%
Ba 233.527†	1114.7	0.4087	mg/L	0.00252	0.8173	mg/L	0.00505	0.62%
Be 313.042†	690.7	0.00120	mg/L	0.000019	0.00239	mg/L	0.000037	1.56%
Ca 317.933†	407910.0	35.09	mg/L	0.233	70.17	mg/L	0.467	0.67%
Cd 228.802†	30.2	0.00216	mg/L	0.000191	0.00433	mg/L	0.000382	8.82%
Co 228.616†	1298.0	0.04165	mg/L	0.001084	0.08329	mg/L	0.002168	2.60%
Cr 267.716†	1648.5	0.3747	mg/L	0.00122	0.7494	mg/L	0.00244	0.33%
Cu 324.752†	23710.6	0.09522	mg/L	0.002021	0.1904	mg/L	0.00404	2.12%
Fe 273.955†	104656.6	112.9	mg/L	0.61	225.9	mg/L	1.23	0.54%
K 766.490†	7212.1	5.192	mg/L	0.0383	10.38	mg/L	0.077	0.74%
Mg 279.077†	25629.7	33.91	mg/L	0.239	67.82	mg/L	0.477	0.70%
Mn 257.610†	28429.2	1.101	mg/L	0.0051	2.203	mg/L	0.0103	0.47%
Mo 202.031†	49.0	0.00275	mg/L	0.000149	0.00549	mg/L	0.000297	5.42%
Na 589.592†	21097.3	1.916	mg/L	0.0115	3.831	mg/L	0.0231	0.60%
Na 330.237†	28.7	3.072	mg/L	0.1160	6.145	mg/L	0.2320	3.77%
Ni 231.604†	295.6	0.2267	mg/L	0.00347	0.4533	mg/L	0.00694	1.53%
Pb 220.353†	34.7	0.01688	mg/L	0.000924	0.03376	mg/L	0.001849	5.48%
Sb 206.836†	12.8	0.01070	mg/L	0.001611	0.02140	mg/L	0.003222	15.05%
Se 196.026†	33.6	0.02829	mg/L	0.001558	0.05658	mg/L	0.003115	5.51%
Si 288.158†	1152.7	0.9166	mg/L	0.00913	1.833	mg/L	0.0183	1.00%
Sn 189.927†	-32.0	-0.00583	mg/L	0.000998	-0.01167	mg/L	0.001995	17.10%
Sr 421.552†	137412.3	0.2350	mg/L	0.00134	0.4700	mg/L	0.00268	0.57%
Ti 334.903†	127985.4	6.629	mg/L	0.0232	13.26	mg/L	0.046	0.35%
Tl 190.801†	-14.4	0.00690	mg/L	0.001645	0.01380	mg/L	0.003290	23.83%
V 292.402†	26149.2	0.2848	mg/L	0.00393	0.5696	mg/L	0.00786	1.38%
Zn 206.200†	95.4	0.2071	mg/L	0.00199	0.4142	mg/L	0.00399	0.96%

Sequence No.: 15
Sample ID: RG94 H SWC

Autosampler Location: 313
Date Collected: 8/12/2010 12:11:21 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 H SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1869146.0	111.6	%	0.45				0.40%
ScR 361.383	328679.4	121.0	%	0.91				0.75%
Ag 328.068†	-61.7	-0.00029	mg/L	0.000118	-0.00059	mg/L	0.000237	40.11%
Al 308.215†	117662.7	105.9	mg/L	0.82	211.8	mg/L	1.64	0.77%
As 188.979†	-123.1	0.00829	mg/L	0.001809	0.01658	mg/L	0.003619	21.82%
B 249.677†	39.1	0.01269	mg/L	0.000949	0.02539	mg/L	0.001898	7.47%
Ba 233.527†	1124.9	0.4126	mg/L	0.00347	0.8252	mg/L	0.00694	0.84%
Be 313.042†	694.8	0.00121	mg/L	0.000036	0.00242	mg/L	0.000073	3.01%
Ca 317.933†	390356.5	33.58	mg/L	0.174	67.15	mg/L	0.347	0.52%
Cd 228.802†	31.5	0.00222	mg/L	0.000142	0.00445	mg/L	0.000283	6.36%
Co 228.616†	1282.0	0.04131	mg/L	0.000533	0.08263	mg/L	0.001066	1.29%
Cr 267.716†	1652.4	0.3758	mg/L	0.00391	0.7516	mg/L	0.00782	1.04%
Cu 324.752†	23895.1	0.09599	mg/L	0.000970	0.1920	mg/L	0.00194	1.01%
Fe 273.955†	104067.0	112.3	mg/L	0.62	224.6	mg/L	1.24	0.55%
K 766.490†	6953.6	5.006	mg/L	0.0643	10.01	mg/L	0.129	1.28%
Mg 279.077†	24286.6	32.13	mg/L	0.173	64.26	mg/L	0.347	0.54%
Mn 257.610†	27385.6	1.061	mg/L	0.0038	2.122	mg/L	0.0076	0.36%
Mo 202.031†	44.3	0.00245	mg/L	0.000141	0.00490	mg/L	0.000282	5.76%
Na 589.592†	19953.9	1.812	mg/L	0.0097	3.624	mg/L	0.0195	0.54%
Na 330.237†	15.2	2.502	mg/L	0.4147	5.004	mg/L	0.8293	16.57%
Ni 231.604†	296.7	0.2275	mg/L	0.00307	0.4551	mg/L	0.00615	1.35%
Pb 220.353†	45.3	0.01859	mg/L	0.000729	0.03718	mg/L	0.001459	3.92%
Sb 206.836†	13.0	0.01053	mg/L	0.000433	0.02107	mg/L	0.000866	4.11%
Se 196.026†	31.7	0.02661	mg/L	0.007320	0.05322	mg/L	0.014640	27.51%
Si 288.158†	1005.8	0.7998	mg/L	0.01574	1.600	mg/L	0.0315	1.97%
Sn 189.927†	-26.3	-0.00412	mg/L	0.001257	-0.00823	mg/L	0.002514	30.53%
Sr 421.552†	137909.5	0.2358	mg/L	0.00142	0.4717	mg/L	0.00285	0.60%
Ti 334.903†	124228.3	6.435	mg/L	0.0391	12.87	mg/L	0.078	0.61%
Tl 190.801†	-15.7	0.00590	mg/L	0.001405	0.01180	mg/L	0.002810	23.82%
V 292.402†	25631.1	0.2790	mg/L	0.00326	0.5581	mg/L	0.00651	1.17%
Zn 206.200†	92.9	0.2016	mg/L	0.00237	0.4032	mg/L	0.00474	1.17%

Sequence No.: 16
Sample ID: RG94 HSPK SWC

Autosampler Location: 314
Date Collected: 8/12/2010 12:15:32 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 HSPK SWC

Analyte	Back Pressure	Flow
All	190.0 kPa	0.75 L/min

Mean Data: RG94 HSPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1859009.0	111.0	%	0.08				0.07%
ScR 361.383	321470.7	118.3	%	0.47				0.40%
Ag 328.068†	78291.9	0.4795	mg/L	0.00463	0.9590	mg/L	0.00927	0.97%
Al 308.215†	119316.3	107.4	mg/L	0.50	214.7	mg/L	1.00	0.47%
As 188.979†	2250.2	2.052	mg/L	0.0030	4.104	mg/L	0.0059	0.14%
B 249.677†	26.7	0.00737	mg/L	0.002184	0.01474	mg/L	0.004368	29.64%
Ba 233.527†	6250.7	2.342	mg/L	0.0123	4.683	mg/L	0.0246	0.52%
Be 313.042†	239650.2	0.4942	mg/L	0.00297	0.9884	mg/L	0.00595	0.60%
Ca 317.933†	490314.8	42.18	mg/L	0.229	84.35	mg/L	0.459	0.54%
Cd 228.802†	9653.2	0.5214	mg/L	0.00323	1.043	mg/L	0.0065	0.62%
Co 228.616†	13169.2	0.5401	mg/L	0.00296	1.080	mg/L	0.0059	0.55%
Cr 267.716†	3828.5	0.8685	mg/L	0.00394	1.737	mg/L	0.0079	0.45%
Cu 324.752†	148119.6	0.5693	mg/L	0.00253	1.139	mg/L	0.0051	0.44%
Fe 273.955†	102300.3	110.4	mg/L	0.65	220.8	mg/L	1.30	0.59%
K 766.490†	19974.7	14.38	mg/L	0.102	28.76	mg/L	0.204	0.71%
Mg 279.077†	32187.3	42.60	mg/L	0.299	85.20	mg/L	0.598	0.70%
Mn 257.610†	38498.9	1.492	mg/L	0.0089	2.984	mg/L	0.0177	0.59%
Mo 202.031†	51.9	0.00282	mg/L	0.000286	0.00564	mg/L	0.000572	10.14%
Na 589.592†	119596.8	10.86	mg/L	0.039	21.72	mg/L	0.078	0.36%
Na 330.237†	291.2	12.62	mg/L	0.204	25.24	mg/L	0.408	1.62%
Ni 231.604†	930.8	0.7138	mg/L	0.00562	1.428	mg/L	0.0112	0.79%
Pb 220.353†	11655.7	2.040	mg/L	0.0081	4.080	mg/L	0.0162	0.40%
Sb 206.836†	18.9	0.00818	mg/L	0.000424	0.01637	mg/L	0.000848	5.18%
Se 196.026†	2289.9	2.087	mg/L	0.0104	4.173	mg/L	0.0208	0.50%
Si 288.158†	1288.3	1.026	mg/L	0.0059	2.053	mg/L	0.0118	0.58%
Sn 189.927†	-34.5	-0.00680	mg/L	0.001103	-0.01360	mg/L	0.002206	16.22%
Sr 421.552†	416863.8	0.7129	mg/L	0.00478	1.426	mg/L	0.0096	0.67%
Ti 334.903†	108139.7	5.601	mg/L	0.0312	11.20	mg/L	0.062	0.56%
Tl 190.801†	2737.1	1.996	mg/L	0.0061	3.991	mg/L	0.0121	0.30%
V 292.402†	64714.9	0.7288	mg/L	0.00070	1.458	mg/L	0.0014	0.10%
Zn 206.200†	322.3	0.7067	mg/L	0.00442	1.413	mg/L	0.0088	0.63%

Sequence No.: 17
Sample ID: RG94 J SWC

Autosampler Location: 315
Date Collected: 8/12/2010 12:19:30 PM
Data Type: Original

Dilution: 2X

Nebulizer Parameters: RG94 J SWC

Analyte	Back Pressure	Flow
All	191.0 kPa	0.75 L/min

Mean Data: RG94 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1852873.0	110.6	%	0.88				0.79%
ScR 361.383	327160.6	120.4	%	0.80				0.66%
Ag 328.068†	-80.3	-0.00069	mg/L	0.000099	-0.00139	mg/L	0.000198	14.30%
Al 308.215†	111459.5	100.3	mg/L	0.92	200.6	mg/L	1.84	0.92%
As 188.979†	-105.5	0.00676	mg/L	0.002213	0.01352	mg/L	0.004426	32.74%
B 249.677†	49.1	0.01589	mg/L	0.000595	0.03179	mg/L	0.001190	3.74%
Ba 233.527†	934.8	0.3382	mg/L	0.00237	0.6764	mg/L	0.00475	0.70%
Be 313.042†	742.1	0.00130	mg/L	0.000008	0.00259	mg/L	0.000016	0.60%
Ca 317.933†	516236.6	44.41	mg/L	0.375	88.81	mg/L	0.750	0.84%
Cd 228.802†	37.1	0.00257	mg/L	0.000178	0.00514	mg/L	0.000356	6.93%
Co 228.616†	1907.0	0.06865	mg/L	0.000403	0.1373	mg/L	0.00081	0.59%
Cr 267.716†	1198.8	0.2701	mg/L	0.00302	0.5402	mg/L	0.00605	1.12%
Cu 324.752†	34521.4	0.1383	mg/L	0.00184	0.2766	mg/L	0.00368	1.33%
Fe 273.955†	131648.1	142.1	mg/L	1.25	284.1	mg/L	2.50	0.88%
K 766.490†	8125.2	5.849	mg/L	0.0282	11.70	mg/L	0.056	0.48%
Mg 279.077†	46394.9	61.42	mg/L	0.446	122.8	mg/L	0.89	0.73%
Mn 257.610†	61934.5	2.400	mg/L	0.0169	4.800	mg/L	0.0338	0.71%
Mo 202.031†	60.2	0.00335	mg/L	0.000316	0.00669	mg/L	0.000632	9.44%
Na 589.592†	33903.0	3.079	mg/L	0.0292	6.157	mg/L	0.0583	0.95%
Na 330.237†	59.7	3.978	mg/L	0.0255	7.956	mg/L	0.0510	0.64%
Ni 231.604†	486.3	0.3729	mg/L	0.00277	0.7459	mg/L	0.00554	0.74%
Pb 220.353†	29.5	0.01254	mg/L	0.000890	0.02509	mg/L	0.001779	7.09%
Sb 206.836†	24.2	0.01526	mg/L	0.000926	0.03051	mg/L	0.001852	6.07%
Se 196.026†	33.0	0.02709	mg/L	0.001788	0.05418	mg/L	0.003576	6.60%
Si 288.158†	1833.2	1.458	mg/L	0.0043	2.915	mg/L	0.0086	0.29%
Sn 189.927†	-31.7	-0.00580	mg/L	0.000138	-0.01161	mg/L	0.000275	2.37%
Sr 421.552†	156282.1	0.2673	mg/L	0.00192	0.5345	mg/L	0.00385	0.72%
Ti 334.903†	106547.0	5.518	mg/L	0.0464	11.04	mg/L	0.093	0.84%
Tl 190.801†	-21.7	0.00722	mg/L	0.004074	0.01445	mg/L	0.008148	56.39%
V 292.402†	29341.5	0.3186	mg/L	0.00447	0.6372	mg/L	0.00895	1.40%
Zn 206.200†	121.4	0.2645	mg/L	0.00462	0.5291	mg/L	0.00924	1.75%

Sequence No.: 18
Sample ID: RG94 K TWC

Autosampler Location: 316
Date Collected: 8/12/2010 12:23:42 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: RG94 K TWC

Analyte	Back Pressure	Flow
All	191.0 kPa	0.75 L/min

Mean Data: RG94 K TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1852436.1	110.6	%	2.19				1.98%
ScR 361.383	323796.7	119.2	%	0.09				0.07%
Ag 328.068†	-20.1	-0.00012	mg/L	0.000301	-0.00012	mg/L	0.000301	242.88%
Al 308.215†	238.0	0.2142	mg/L	0.00841	0.2142	mg/L	0.00841	3.93%
As 188.979†	0.2	0.00038	mg/L	0.002527	0.00038	mg/L	0.002527	658.21%
B 249.677†	12.8	0.00420	mg/L	0.001308	0.00420	mg/L	0.001308	31.18%
Ba 233.527†	4.7	0.00175	mg/L	0.000613	0.00175	mg/L	0.000613	35.04%
Be 313.042†	-27.2	-0.00006	mg/L	0.000047	-0.00006	mg/L	0.000047	83.86%
Ca 317.933†	1810.5	0.1557	mg/L	0.00452	0.1557	mg/L	0.00452	2.90%
Cd 228.802†	3.7	0.00020	mg/L	0.000207	0.00020	mg/L	0.000207	101.18%
Co 228.616†	0.7	0.00000	mg/L	0.000156	0.00000	mg/L	0.000156	>999.9%
Cr 267.716†	10.2	0.00232	mg/L	0.000706	0.00232	mg/L	0.000706	30.48%
Cu 324.752†	-168.2	-0.00063	mg/L	0.000807	-0.00063	mg/L	0.000807	128.68%
Fe 273.955†	250.3	0.2701	mg/L	0.00895	0.2701	mg/L	0.00895	3.31%
K 766.490†	30.8	0.02216	mg/L	0.027922	0.02216	mg/L	0.027922	126.01%
Mg 279.077†	56.4	0.07461	mg/L	0.009385	0.07461	mg/L	0.009385	12.58%
Mn 257.610†	149.8	0.00580	mg/L	0.000129	0.00580	mg/L	0.000129	2.22%
Mo 202.031†	-3.2	-0.00022	mg/L	0.000137	-0.00022	mg/L	0.000137	61.80%
Na 589.592†	693.4	0.06296	mg/L	0.001656	0.06296	mg/L	0.001656	2.63%
Na 330.237†	18.6	0.7057	mg/L	0.15188	0.7057	mg/L	0.15188	21.52%
Ni 231.604†	4.5	0.00345	mg/L	0.001108	0.00345	mg/L	0.001108	32.08%
Pb 220.353†	1.4	0.00027	mg/L	0.001405	0.00027	mg/L	0.001405	514.12%
Sb 206.836†	-12.6	-0.00520	mg/L	0.000848	-0.00520	mg/L	0.000848	16.30%
Se 196.026†	6.3	0.00576	mg/L	0.005669	0.00576	mg/L	0.005669	98.34%
Si 288.158†	457.5	0.3638	mg/L	0.00315	0.3638	mg/L	0.00315	0.86%
Sn 189.927†	0.3	0.00010	mg/L	0.000715	0.00010	mg/L	0.000715	736.75%
Sr 421.552†	563.3	0.00096	mg/L	0.000073	0.00096	mg/L	0.000073	7.57%
Ti 334.903†	217.4	0.01125	mg/L	0.000746	0.01125	mg/L	0.000746	6.63%
Tl 190.801†	-1.3	-0.00089	mg/L	0.001924	-0.00089	mg/L	0.001924	216.80%
V 292.402†	39.8	0.00043	mg/L	0.000159	0.00043	mg/L	0.000159	36.84%
Zn 206.200†	-0.1	-0.00023	mg/L	0.000426	-0.00023	mg/L	0.000426	185.07%

Sequence No.: 19
Sample ID: RG94 MB2SPK TWC

Autosampler Location: 317
Date Collected: 8/12/2010 12:27:53 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: RG94 MB2SPK TWC

Analyte	Back Pressure	Flow
All	191.0 kPa	0.75 L/min

Mean Data: RG94 MB2SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1827065.3	109.1	%	0.61				0.56%
ScR 361.383	325193.9	119.7	%	0.33				0.28%
Ag 328.068†	84699.6	0.5187	mg/L	0.00483	0.5187	mg/L	0.00483	0.93%
Al 308.215†	2172.4	1.946	mg/L	0.0219	1.946	mg/L	0.0219	1.13%
As 188.979†	2413.4	2.094	mg/L	0.0067	2.094	mg/L	0.0067	0.32%
B 249.677†	7.6	0.00122	mg/L	0.000314	0.00122	mg/L	0.000314	25.70%
Ba 233.527†	5012.0	1.886	mg/L	0.0244	1.886	mg/L	0.0244	1.29%
Be 313.042†	233655.4	0.4820	mg/L	0.00227	0.4820	mg/L	0.00227	0.47%
Ca 317.933†	115139.4	9.904	mg/L	0.0431	9.904	mg/L	0.0431	0.43%
Cd 228.802†	9489.8	0.5119	mg/L	0.00568	0.5119	mg/L	0.00568	1.11%
Co 228.616†	12049.8	0.5042	mg/L	0.00617	0.5042	mg/L	0.00617	1.22%
Cr 267.716†	2079.1	0.4709	mg/L	0.00280	0.4709	mg/L	0.00280	0.60%
Cu 324.752†	122354.0	0.4662	mg/L	0.00638	0.4662	mg/L	0.00638	1.37%
Fe 273.955†	1824.0	1.966	mg/L	0.0234	1.966	mg/L	0.0234	1.19%
K 766.490†	14275.5	10.28	mg/L	0.119	10.28	mg/L	0.119	1.16%
Mg 279.077†	7556.7	10.01	mg/L	0.071	10.01	mg/L	0.071	0.71%
Mn 257.610†	11794.0	0.4574	mg/L	0.00566	0.4574	mg/L	0.00566	1.24%
Mo 202.031†	16.7	0.00097	mg/L	0.000031	0.00097	mg/L	0.000031	3.18%
Na 589.592†	100108.7	9.090	mg/L	0.0256	9.090	mg/L	0.0256	0.28%
Na 330.237†	280.5	10.53	mg/L	0.260	10.53	mg/L	0.260	2.47%
Ni 231.604†	641.3	0.4918	mg/L	0.00025	0.4918	mg/L	0.00025	0.05%
Pb 220.353†	11639.8	2.026	mg/L	0.0228	2.026	mg/L	0.0228	1.12%
Sb 206.836†	0.3	-0.00318	mg/L	0.001882	-0.00318	mg/L	0.001882	59.21%
Se 196.026†	2292.8	2.092	mg/L	0.0117	2.092	mg/L	0.0117	0.56%
Si 288.158†	-0.6	0.00138	mg/L	0.004282	0.00138	mg/L	0.004282	310.05%
Sn 189.927†	-11.7	-0.00340	mg/L	0.000508	-0.00340	mg/L	0.000508	14.95%
Sr 421.552†	287428.4	0.4915	mg/L	0.00142	0.4915	mg/L	0.00142	0.29%
Ti 334.903†	20.9	0.00038	mg/L	0.000673	0.00038	mg/L	0.000673	179.10%
Tl 190.801†	2840.6	2.054	mg/L	0.0112	2.054	mg/L	0.0112	0.55%
V 292.402†	44166.9	0.5069	mg/L	0.00754	0.5069	mg/L	0.00754	1.49%
Zn 206.200†	229.4	0.5052	mg/L	0.00475	0.5052	mg/L	0.00475	0.94%

Sequence No.: 20
Sample ID: CV4

Autosampler Location: 7
Date Collected: 8/12/2010 12:32:05 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	191.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1778586.1	106.2	%	6.04				5.69%
ScR 361.383	314637.7	115.8	%	0.65				0.56%
Ag 328.068†	169273.4	1.036	mg/L	0.0686	1.036	mg/L	0.0686	6.62%
Al 308.215†	2350.2	2.083	mg/L	0.0058	2.083	mg/L	0.0058	0.28%
As 188.979†	2437.4	2.132	mg/L	0.1222	2.132	mg/L	0.1222	5.73%
B 249.677†	3025.9	0.9904	mg/L	0.00226	0.9904	mg/L	0.00226	0.23%
Ba 233.527†	2642.5	0.9938	mg/L	0.00479	0.9938	mg/L	0.00479	0.48%
Be 313.042†	478116.2	0.9863	mg/L	0.01264	0.9863	mg/L	0.01264	1.28%
Ca 317.933†	25165.8	2.165	mg/L	0.0131	2.165	mg/L	0.0131	0.61%
Cd 228.802†	19515.4	1.060	mg/L	0.0681	1.060	mg/L	0.0681	6.43%
Co 228.616†	24982.3	1.044	mg/L	0.0658	1.044	mg/L	0.0658	6.30%
Cr 267.716†	4490.0	1.020	mg/L	0.0035	1.020	mg/L	0.0035	0.34%
Cu 324.752†	268424.7	1.022	mg/L	0.0695	1.022	mg/L	0.0695	6.80%
Fe 273.955†	1898.4	2.043	mg/L	0.0105	2.043	mg/L	0.0105	0.51%
K 766.490†	29475.3	21.22	mg/L	0.051	21.22	mg/L	0.051	0.24%
Mg 279.077†	1582.4	2.103	mg/L	0.0073	2.103	mg/L	0.0073	0.35%
Mn 257.610†	24494.9	0.9496	mg/L	0.00453	0.9496	mg/L	0.00453	0.48%
Mo 202.031†	15179.6	1.038	mg/L	0.0619	1.038	mg/L	0.0619	5.96%
Na 589.592†	514199.4	46.69	mg/L	0.390	46.69	mg/L	0.390	0.84%
Na 330.237†	1404.2	53.04	mg/L	0.447	53.04	mg/L	0.447	0.84%
Ni 231.604†	1337.3	1.027	mg/L	0.0039	1.027	mg/L	0.0039	0.38%
Pb 220.353†	12150.3	2.116	mg/L	0.1230	2.116	mg/L	0.1230	5.81%
Sb 206.836†	5180.3	2.141	mg/L	0.1355	2.141	mg/L	0.1355	6.33%
Se 196.026†	2310.6	2.108	mg/L	0.1144	2.108	mg/L	0.1144	5.43%
Si 288.158†	2634.2	2.098	mg/L	0.0098	2.098	mg/L	0.0098	0.47%
Sn 189.927†	3177.7	1.045	mg/L	0.0589	1.045	mg/L	0.0589	5.63%
Sr 421.552†	592693.5	1.014	mg/L	0.0080	1.014	mg/L	0.0080	0.79%
Ti 334.903†	19733.6	1.021	mg/L	0.0063	1.021	mg/L	0.0063	0.61%
Tl 190.801†	2901.5	2.099	mg/L	0.1211	2.099	mg/L	0.1211	5.77%
V 292.402†	90103.6	1.035	mg/L	0.0654	1.035	mg/L	0.0654	6.32%
Zn 206.200†	472.2	1.039	mg/L	0.0055	1.039	mg/L	0.0055	0.53%

JR 8.12.10

Sequence No.: 21
Sample ID: CB

Autosampler Location: 1
Date Collected: 8/12/2010 12:36:19 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	191.0 kPa	0.75 L/min

User canceled analysis.

Analysis Begun

Start Time: 8/12/2010 12:39:18 PM
Logged In Analyst: metals
Spectrometer Model: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 8/12/2010 8:37:11 AM
Technique: ICP Continuous
Autosampler Model: AS-93plus

Sample Information File: C:\pe\metals\Sample Information\0812A.sif
Batch ID:
Results Data Set: I2100812
Results Library: C:\pe\metals\Results\Results.mdb

Sequence No.: 20
Sample ID: CV

Autosampler Location: 7
Date Collected: 8/12/2010 12:39:19 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	191.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1850009.2	110.5	%	0.26				0.23%
ScR 361.383	318898.1	117.4	%	1.43				1.22%
Ag 328.068†	163331.2	1.000	mg/L	0.0045	1.000	mg/L	0.0045	0.45%
Al 308.215†	2327.6	2.063	mg/L	0.0190	2.063	mg/L	0.0190	0.92%
As 188.979†	2358.3	2.063	mg/L	0.0036	2.063	mg/L	0.0036	0.17%
B 249.677†	3011.9	0.9859	mg/L	0.01184	0.9859	mg/L	0.01184	1.20%
Ba 233.527†	2621.4	0.9859	mg/L	0.01218	0.9859	mg/L	0.01218	1.24%
Be 313.042†	477427.0	0.9849	mg/L	0.01289	0.9849	mg/L	0.01289	1.31%
Ca 317.933†	24952.4	2.146	mg/L	0.0257	2.146	mg/L	0.0257	1.20%
Cd 228.802†	18782.6	1.020	mg/L	0.0063	1.020	mg/L	0.0063	0.62%
Co 228.616†	24109.3	1.008	mg/L	0.0057	1.008	mg/L	0.0057	0.57%
Cr 267.716†	4465.9	1.014	mg/L	0.0130	1.014	mg/L	0.0130	1.28%
Cu 324.752†	258700.7	0.9849	mg/L	0.00664	0.9849	mg/L	0.00664	0.67%
Fe 273.955†	1878.1	2.021	mg/L	0.0222	2.021	mg/L	0.0222	1.10%
K 766.490†	29205.0	21.02	mg/L	0.198	21.02	mg/L	0.198	0.94%
Mg 279.077†	1560.7	2.074	mg/L	0.0169	2.074	mg/L	0.0169	0.82%
Mn 257.610†	24355.4	0.9442	mg/L	0.01283	0.9442	mg/L	0.01283	1.36%
Mo 202.031†	14658.0	1.003	mg/L	0.0042	1.003	mg/L	0.0042	0.42%
Na 589.592†	511626.1	46.46	mg/L	0.591	46.46	mg/L	0.591	1.27%
Na 330.237†	1387.5	52.41	mg/L	0.768	52.41	mg/L	0.768	1.46%
Ni 231.604†	1328.8	1.021	mg/L	0.0118	1.021	mg/L	0.0118	1.15%
Pb 220.353†	11735.6	2.044	mg/L	0.0084	2.044	mg/L	0.0084	0.41%
Sb 206.836†	4995.7	2.064	mg/L	0.0056	2.064	mg/L	0.0056	0.27%
Se 196.026†	2235.3	2.040	mg/L	0.0056	2.040	mg/L	0.0056	0.27%
Si 288.158†	2597.5	2.069	mg/L	0.0257	2.069	mg/L	0.0257	1.24%
Sn 189.927†	3079.3	1.013	mg/L	0.0037	1.013	mg/L	0.0037	0.36%
Sr 421.552†	589728.0	1.009	mg/L	0.0157	1.009	mg/L	0.0157	1.55%
Ti 334.903†	19561.5	1.012	mg/L	0.0145	1.012	mg/L	0.0145	1.44%
Tl 190.801†	2801.1	2.027	mg/L	0.0099	2.027	mg/L	0.0099	0.49%
V 292.402†	86803.4	0.9969	mg/L	0.00881	0.9969	mg/L	0.00881	0.88%
Zn 206.200†	472.3	1.040	mg/L	0.0066	1.040	mg/L	0.0066	0.64%

Sequence No.: 21
Sample ID: CB 4

Autosampler Location: 1
Date Collected: 8/12/2010 12:43:33 PM
Data Type: Original

Dilution: 1X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	192.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	1846649.9	110.3	%	2.74				2.48%
ScR 361.383	322369.9	118.7	%	1.50				1.26%
Ag 328.068†	-9.5	-0.00006	mg/L	0.000174	-0.00006	mg/L	0.000174	299.53%
Al 308.215†	13.3	0.01192	mg/L	0.001925	0.01192	mg/L	0.001925	16.15%
As 188.979†	0.6	0.00048	mg/L	0.001094	0.00048	mg/L	0.001094	228.05%
B 249.677†	15.0	0.00493	mg/L	0.001831	0.00493	mg/L	0.001831	37.14%
Ba 233.527†	-1.3	-0.00048	mg/L	0.001384	-0.00048	mg/L	0.001384	286.62%
Be 313.042†	-26.5	-0.00005	mg/L	0.000033	-0.00005	mg/L	0.000033	59.58%
Ca 317.933†	-7.4	-0.00064	mg/L	0.001310	-0.00064	mg/L	0.001310	205.12%
Cd 228.802†	3.7	0.00020	mg/L	0.000183	0.00020	mg/L	0.000183	91.03%
Co 228.616†	6.4	0.00027	mg/L	0.000125	0.00027	mg/L	0.000125	46.56%
Cr 267.716†	4.6	0.00103	mg/L	0.001426	0.00103	mg/L	0.001426	137.95%
Cu 324.752†	-174.1	-0.00066	mg/L	0.000899	-0.00066	mg/L	0.000899	135.35%
Fe 273.955†	-1.3	-0.00145	mg/L	0.000659	-0.00145	mg/L	0.000659	45.53%
K 766.490†	11.8	0.00853	mg/L	0.005502	0.00853	mg/L	0.005502	64.52%
Mg 279.077†	4.9	0.00649	mg/L	0.006851	0.00649	mg/L	0.006851	105.54%
Mn 257.610†	1.0	0.00004	mg/L	0.000118	0.00004	mg/L	0.000118	309.89%
Mo 202.031†	19.2	0.00132	mg/L	0.000392	0.00132	mg/L	0.000392	29.77%
Na 589.592†	-173.8	-0.01578	mg/L	0.001149	-0.01578	mg/L	0.001149	7.28%
Na 330.237†	21.6	0.8155	mg/L	0.18757	0.8155	mg/L	0.18757	23.00%
Ni 231.604†	1.7	0.00129	mg/L	0.001400	0.00129	mg/L	0.001400	108.54%
Pb 220.353†	4.8	0.00085	mg/L	0.000315	0.00085	mg/L	0.000315	37.15%
Sb 206.836†	1.7	0.00070	mg/L	0.001732	0.00070	mg/L	0.001732	248.71%
Se 196.026†	5.0	0.00459	mg/L	0.003522	0.00459	mg/L	0.003522	76.67%
Si 288.158†	-3.0	-0.00239	mg/L	0.002498	-0.00239	mg/L	0.002498	104.42%
Sn 189.927†	5.0	0.00163	mg/L	0.000444	0.00163	mg/L	0.000444	27.27%
Sr 421.552†	-3.0	-0.00001	mg/L	0.000036	-0.00001	mg/L	0.000036	699.67%
Ti 334.903†	2.1	0.00011	mg/L	0.000465	0.00011	mg/L	0.000465	437.90%
Tl 190.801†	0.9	0.00065	mg/L	0.001831	0.00065	mg/L	0.001831	283.14%
V 292.402†	6.4	0.00008	mg/L	0.000062	0.00008	mg/L	0.000062	78.62%
Zn 206.200†	0.0	0.00001	mg/L	0.002910	0.00001	mg/L	0.002910	>999.9%

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: RG94

w
8-4-10

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 8/3/10 (B)
ANALYST: KE 17:28 (A)

Instrumentation

Drying Ovens: 12
Muffle Furnace: N / A
Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

8/3/2010 17:28	date/time in oven	KE
8/4/2010 10:14	date/time out	KE
elapsed hrs =	16.8	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02
Date & Time	8/3/10 16:28 KE	8/3/10 15:42 KE	8/4/10 10:38 KE				
Cal Wt (g) 10.0000	10.0000	10.0000	10.0000				
record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*				

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.1526	1.1524			0.00							
RG78 A9		6.5520	1.1360	5.7112			4.58	84.5%						
RG78 C9		6.1372	1.1350	5.8964			4.76	95.2%						
RG78 J9		6.1600	1.0999	5.5068			4.41	87.1%						
RG78 J9 dup		6.1802	1.1402	5.5756			4.44	88.0%						
							RPD =	1.04%				RPD =	NA	
RG78 J9 trp		6.1638	1.1366	5.5786			4.44	88.4%						
							RSD =	0.74%				RSD =	NA	
RG78 K9		6.1602	1.1132	5.9154			4.80	95.1%						
RG79 G9		6.1859	1.1244	5.5354			4.41	87.1%						
RG79 H9		6.4130	1.0894	5.4739			4.38	82.4%						
RG79 O9		6.9182	1.0584	6.0689			5.01	85.5%						
RG79 P9		6.4201	1.0962	5.5806			4.48	84.2%						
RG79 Q9		6.9709	1.1075	5.9864			4.88	83.2%						
RG85 A2		6.4439	1.1431	2.4724			1.33	25.1%						
RG85 A2 dup		6.2689	1.1263	2.3926			1.27	24.6%						
							RPD =	1.83%				RPD =	NA	
RG85 A2 trp		6.5776	1.1256	2.4455			1.32	24.2%						
							RSD =	1.76%				RSD =	NA	
RG85 B2		6.9157	1.1221	3.1484			2.03	35.0%						
RG94 A8		6.5425	1.1181	5.7070			4.59	84.6%						
RG94 B8		6.5975	1.1143	5.6330			4.52	82.4%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 8/3/10 (B)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: KE 17:28 (A)

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

8/3/2010 17:28 date/time in oven KE

8/4/2010 10:14 date/time out KE

elapsed hrs = 16.8

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	8/3/10 16:28 KE	8/3/10 15:42 KE	8/4/10 10:38 KE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
RG94 C8		6.2280	1.1123	5.4849			4.37	**85.5%**						
RG94 D8		6.2910	1.1260	5.5550			4.43	**85.8%**						
RG94 E8		6.7352	1.1076	5.9972			4.89	**86.9%**						
RG94 H20		6.8280	1.1031	5.8644			4.76	**83.2%**						
RG94 H20 dup		6.9314	1.1314	5.9862			4.85	**83.7%**						
							RPD =	0.64%				RPD =	NA	
RG94 H20 trp		6.4831	1.1024	5.6030			4.50	**83.6%**						
							RSD =	0.35%				RSD =	NA	
RG94 I 8		6.0664	1.1359	5.1530			4.02	**81.5%**						
RG94 J 8		6.2985	1.0752	5.0522			3.98	**76.1%**						

RG94 - 91597

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: (W)	Date: 8-3-10	Oven ID: 12	Balance ID: 1123230597
Time in Oven: 17:28	Time Out of Oven: 10:14	Elapsed Time (> 12 Hrs):	16.8

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	8/3/10 16:28	8/3/10 15:42	8/3/10 10:36						
Cal Weight (10.0000):	10.0000 (W)	10.0000 (W)	10.0000 (W)						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	1	Ø	1.1526	1.1524						
RG78 A9	2	6.5520	1.1360	5.7112						
C9	3	6.1372	1.1350	5.8964						
J2	4	6.1600	1.0999	5.5068						
NPJ2	5	6.1802	1.1402	5.5756						
HPJ2	6	6.1638	1.1366	5.5786						
R9	7	6.1602	1.1132	5.9154						
RG79 G9	8	6.1859	1.1244	5.5354						
H9	9	6.4130	1.0894	5.4739						
O9	10	6.9182	1.0584	6.0689						
P9	11	6.4201	1.0962	5.5806						
Q9	12	6.9709	1.1075	5.9864						
RG85 A2	13	6.4439	1.1431	2.4724						
NPA2	14 (D)	~~6.2955~~ (2) 6.2689	1.1263	2.3926						
HPA2	15	6.5776	1.1256	2.4455						
B2	16	6.9157	1.1221	3.1484						
RG94 A8	17	6.5425	1.1181	5.7070						
B8	18	6.5975	1.1143	5.6330						
C7	19	6.2280	1.1123	5.4849						
D8	20	6.290	1.1260	5.5550						
E8	21	6.7352	1.1076	5.9972						
H24	22	6.9280	1.1031	5.8644						

(2) 6.2689 (W) 8-3-10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(08-3-10(W)

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Page 2 of 2

Analyst: (N)		Date: 8-3-10			Oven ID: 12			Balance ID:	1123230597
Time in Oven:	17:28	Time Out of Oven:			10:14		Elapsed Time (> 12 Hrs):		

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02
Date & Time:		8-2-10 16:27	8-2-10 15:42	8-2-10 10:2						
Cal Weight (10.0000):		10.00000(N)	10.00000(W)	10.00100(N)						
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
~~RG94 BLANK~~	20	6.9814	1.1314	5.9862						
HL	24	6.4831	1.1024	~~5.6038~~	5.6030					
JS	25	6.0664	1.1359	5.1530						
JS	26	6.2985	1.0752	~~5.0391~~ (1)	5.0522					

8-3-10 (W)

W
8-5-10

TOC Solids Prep Log

DATE: 8/3/2010
ANALYST: KE 17:54

acid purging to remove IC and drying at 70°C for TOC analysis
General notes regarding prep method and samples (identify the acid used)

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.1109		13.1108	-0.1 mg	
RG78 A9		-	13.2455	18.6691	17.9413	86.58%	
RG78 C9		-	13.1876	18.1132	18.0303	98.32%	
RG78 J 9		-	13.2777	18.3712	18.1538	95.73%	
RG78 J 9 DUP		-	13.1916	18.1631	17.9212	95.13%	
RG78 J 9 TRIP		-	13.1317	18.1559	17.8638	94.19%	
RG78 K9		-	13.0920	18.6683	18.5407	97.71%	
RG79 G9		-	13.1888	18.4005	17.9773	91.88%	
RG79 H9		-	13.2063	18.4675	17.7708	86.76%	
RH79 O9		-	13.2377	18.4247	17.8194	88.33%	
RG79 P9		-	13.2839	18.2859	17.6659	87.60%	
RG79 Q9		-	13.1550	18.8680	18.1901	88.13%	
RG85 A2		+-	13.1024	18.0707	14.6417	30.98%	
RG85 A2 DUP		+-	13.2481	18.0808	14.7059	30.17%	
RG85 A2 TRIP		+-	13.2432	18.4061	14.8372	30.87%	
RG85 B2		+-	13.3016	18.5076	15.3838	40.00%	
RG94 A8		-	13.1438	18.2742	17.6506	87.85%	
RG94 B8		-	13.2481	18.8851	18.0143	84.55%	
RG94 C7		-	13.1111	18.7059	18.0453	88.19%	
RG94 D8		-	13.1426	18.8222	18.1309	87.83%	
RG94 E8		-	13.2496	18.8319	18.3632	91.60%	
RG94 H8		-	13.2717	18.7901	17.9970	85.63%	
RG94 H8 DUP		-	13.1499	18.9721	18.1171	85.31%	
RG94 H8 TRIP		-	13.1472	18.5836	17.8248	86.04%	
RG94 I 8		-	13.1807	19.1775	18.1284	82.51%	
RG94 J 8			13.2580	18.4594	17.5026	81.60%	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC an alysis
Add general notes regarding samples and preparation and identify the acid used

(1) 8-3-10 (W)

Analyst (W) Date 8-3-10 17:54

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1109	Ø	13.1109		
RG78 A9		−	13.2455	18.6691	17.9413		Fine Sand
C9		−	13.1876	18.1132	18.0303		
J22		−	13.2777	18.3712	18.1538		coarse Rocks
dup J22		−	13.1916	18.1631	17.9212		
4th J22		−	13.1317	18.1559	17.8638		
K9		−	13.0920	18.6683	18.5401		
RG79 G9		−	13.1888	18.4005	17.9773		
H9		−	13.2063	18.4675	17.7708		+wet
O9		−	13.2377	18.4247	17.8194		
P9		−	13.2839	18.2859	17.6659		Gray + clay, 15 % fine sand
Q9		−	13.1550	18.8680	18.1901		
RG85 A2		+−	13.1024	18.0707	~~17.6594~~ (1)	14.6417	Very Wet Sediment
dup A2		+−	13.2481	18.0808	14.7059		
4th A2		+−	13.2432	18.4061	14.8372		
B2		+−	13.3016	18.5076	15.3838		
RG94 A8		−	13.1438	18.2712	~~18.5836~~ (2)	17.6506	Sand
B8		−	13.2481	18.8851	18.0143		
C7		−	13.1111	18.7059	18.0453		Clayish -
D8		−	13.1426	18.8222	18.1309		Sand
E9		−	13.2496	18.8319	18.3632		
H20		−	13.2717	18.7901	18 (1) 17.9970		
dup H20		−	13.1499	18.9721	18.1171		
4th H20		−	13.1472	~~18.5830~~ (1)	~~18.5836~~ 18	17.8248	
I8		−	13.1807	19.1775	18.1284		Wet Sandy Sediment
J8		−	13.2580	18.4594	17.5026		Wet Sand
				8-3-10 (W)			

(2) 18.5836 8-3-10 (W)

TOC, Solids Data Analysis

DATE: 8/12/2010

Instrument: Apollo 2 — ANALYST: CR 9:14

Mode: NPOC *Inlet:* Boat

Spike Std = **2,500** *ppm C*

Calibration Data

Cal Curve ID: **CAL 08112010** *Conc:* 5,000 *ppm*

Calibration Curve Standard: **ARI # 00103 - 1** *Curve Date:* **08/11/10**

CalFact: 2.401E+05 *intercept:* -709220 *r2 :* 0.99466

Curve Range (µgC): **8** *to* **100**

Verification Standard Source: ***ERA# 0513 - 10 - 06*** *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
62.9	56.0	40.2				53.0	22.0%	OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
~~ICV~~			-	~~1.00~~		~~40.0~~	~~1028~~	~~1,028~~	~~102.80%~~
ICV				1.00		40.0	980	980	98.00%
Blank				1.00		40.0	95	95	Blank OK
Blank				1.00		40.0	82.65	83	Blank OK
NIST 8704				1.00		2.5	34731	34,731	103.64%
RG78 A9				1.00		3.7	782	782	Range OK!
RG78 C9				1.00		4.1	940	940	Range OK!
RG78 J22				1.00		2.3	16694	16,694	Range OK!
RG78 J22 dup				1.00		2.5	23274	23,274	RPD=32.9%
RG78 J22 trp				1.00		2.4	20035	20,035	RSD=16.4%
RG78 J22 ms				1.00	10	1.5	32404	32,404	Range OK!
Spike =	*0.025*	*mg C to*	*1.5*	*mg samp=*	*16,667*	*ppm*		*94%*	
RG78 K9				1.00		2.8	849	849	Range OK!
RG94 A8				1.00		3.5	1028	1,028	Range OK!
RG94 B8				1.00		5.8	415	415	Range OK!
CCV				1.00		40.0	1034	1,034	103.40%
Blank				1.00		40.0	89.34	89	Blank OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
RG94 C8				1.00		4.5	872	872	*Range OK!*
RG94 D8				1.00		4.0	1287	1,287	*Range OK!*
RG94 E8				1.00		4.0	350	350	*Range OK!*
RG94 H20				1.00		5.4	1464	1,464	*Range OK!*
RG94 H20 dup				1.00		5.4	1053	1,053	*RPD=32.7%*
RG94 H20 trp				1.00		5.5	1942	1,942	*RSD=29.9%*
RG94 H20 ms				1.00	10	5.5	6417	6,417	*Range OK!*
Spike =	*0.025*	*mg C to*	*5.5*	*mg samp=*	*4,545*	*ppm*		*109%*	
RG94 I8				1.00		4.5	1140	1,140	*Range OK!*
RG94 J8				1.00		5.8	581	581	*Range OK!*
CCV				1.00		40.0	1076	1,076	*107.60%*
Blank				1.00		40.0	78.78	79	*Blank OK*
RG85 A2				1.00		1.0	85269	85,269	*Range OK!*
SB 1				1.00		40.0	62.85	63	*Range OK!*
SB 2				1.00		42.3	56	56	*Range OK!*
SB 3				1.00		43.5	40.16	40	*Range OK!*
RG85 A1	10.9	102.5	89.37%	9.40		2.1	12600	118,041	*Range OK!*
RG85 A1 dup	11.0	109.3	89.94%	9.94		2.1	11113	109,949	*RPD=7.1%*
RG85 A1 trp	10.7	107.6	90.06%	10.06		2.2	8256	82,543	*RSD=18%*
RG85 A1 ms	10.9	102.5	89.37%	9.40	10	2.0	24278	227,857	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.2*	*mg samp=*	*117,546*	*ppm*		*93%*	
RG85 B2	10.8	107.1	89.92%	9.92		2.9	8767	86,467	*Range OK!*
NIST 8704				1.00		2.3	32985	32,985	*98.43%*
CCV				1.00		40.0	1008	1,008	*100.80%*
Blank				1.00		40.0	82.41	82	*Blank OK*

Analytical Resources,Incorporated
Analytical Chemists and Consultants

1/2 ou
8-12-10

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC BOAT **INLET:** BOAT SAMPLER

Standards:	Source	Conc (ppm)
Calibration:	ARI 00105-11	5000
Verification:	EPA 1513-10-01	5000 N 1000 PAR CVS
SRM:	NBS 8704	33570

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			Low NPOC Flow
ICV			40			
ICB/ICB			40/40			
NBS 8704			2.5			
RG98 A9			3.7			
C9			4.1			
S22			2.3			
S22 DUP			2.5			
S22 TRP			2.4			
S22 MS			1.5	2500	10	
K9			2.8			
RG94 A8			3.5			
B8			5.8			
CCV			40			
CCB			40			
RG94 C8			4.5			
D8			4.0			
E8			4.0			
H2O			5.4			
H2O DUP			5.4			
H2O TRP			5.5			
H2O MS			5.5	2500	10	
I8			4.5			
J8			5.8			
CCV			40			
CCB			40			
RG85 A2			1.0			
SB1			40.0			
SB2			42.3			
SB3			43.5			
RG85 A2	10.9	102.5	2.1			
A2 DUP	11.0	109.3	2.1			

2/2

CW 8-12-10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE:	NPOC BOAT	INLET:	Boat Sampler
Standards:	~~AR~~ **Source**	**Conc (ppm)**	
Calibration:	APT 00805-11	5000	
Verification:	CCA 1513-10-06	5000 to 1000 ppm CVS	
SRM:	NBS-8704	33.30	

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
RGSS BL TMP	10.7	102.6	2.2			
A2 MS	10.9	102.5	2.0			
B2	10.8	102.1	2.9			
NBS 8704			2.3			
CCV			40			
CCB			40			

CW 8-12-10

Detailed Analysis Report Print Date/Time: 2010/08/12 16:26:57

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08120906
Timestamp: 2010/08/12 09:10
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1028.3962	41.1359	9169528	19.006	20.002	181

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08120952
Timestamp: 2010/08/12 09:55
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	980.7195	39.2288	8711546	21.119	22.113	123

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121002
Timestamp: 2010/08/12 10:04
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	94.7239	3.7890	200696	20.915	21.914	66

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121016
Timestamp: 2010/08/12 10:18
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82.6548	3.3062	84760	20.824	21.822	54

Sample ID: NBS 8704
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121026
Timestamp: 2010/08/12 10:31
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34731.0391	86.8276	20142372	20.728	21.728	206

Sample ID: RG78 A9
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121152
Timestamp: 2010/08/12 11:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	782.2000	2.8941	695026	21.121	22.121	95

Sample ID: RG78 C9
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121158
Timestamp: 2010/08/12 12:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	939.9782	3.8539	925514	21.093	22.087	94

Sample ID: RG78 J22 Mode: TOC
Method: Boat Sampler Filename: 08121205
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:09
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16694.1602	38.3966	9220911	21.003	21.997	139

Sample ID: RG78 J22 DUP Mode: TOC
Method: Boat Sampler Filename: 08121212
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:16
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23274.9590	58.1874	13973667	21.066	22.064	149

Sample ID: RG78 J22 TRP Mode: TOC
Method: Boat Sampler Filename: 08121218
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:22
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20035.1797	48.0844	11547445	21.037	22.033	135

Sample ID: RG78 J22 MS Mode: TOC
Method: Boat Sampler Filename: 08121225
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:29
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32404.2129	48.6063	11672776	20.664	21.663	137

Sample ID: RG78 K9 Mode: TOC
Method: Boat Sampler Filename: 08121236
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:38
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	849.7103	2.3792	571361	20.293	21.292	77

Sample ID: RG94 A8 Mode: TOC
Method: Boat Sampler Filename: 08121241
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:43
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1028.8062	3.6008	864735	20.144	21.144	93

Sample ID: RG94 B8 Mode: TOC
Method: Boat Sampler Filename: 08121246
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 12:48
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	414.6611	2.4050	577568	20.154	21.154	92

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121252
Timestamp: 2010/08/12 12:55
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1034.2053	41.3682	9225330	20.255	21.254	138

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121257
Timestamp: 2010/08/12 12:59
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	89.3368	3.5735	148947	20.189	21.179	61

Sample ID: RG94 C8
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121302
Timestamp: 2010/08/12 13:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	872.2397	3.9251	942605	20.086	21.082	107

Sample ID: RG94 D8
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121307
Timestamp: 2010/08/12 13:10
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1286.6051	5.1464	1235910	19.950	20.948	144

Sample ID: RG94 E8
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121313
Timestamp: 2010/08/12 13:15
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	350.5534	1.4022	336741	20.144	21.143	77

Sample ID: RG94 H20
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121318
Timestamp: 2010/08/12 13:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1463.7434	7.9042	1898192	20.229	21.228	128

Sample ID: RG94 H20 DUP
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121324
Timestamp: 2010/08/12 13:27
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1053.3115	5.6879	1365941	20.341	21.341	115

Sample ID: RG94 H20 TRP
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121330
Timestamp: 2010/08/12 13:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1942.5012	10.6838	2565697	20.478	21.477	121

Sample ID: RG94 H20 MS
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121342
Timestamp: 2010/08/12 13:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6416.5889	35.2912	8475168	20.459	21.458	164

Sample ID: RG94 I8
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121411
Timestamp: 2010/08/12 14:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1139.8992	5.1295	1231857	19.827	20.827	122

Sample ID: RG94 J8
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121419
Timestamp: 2010/08/12 14:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	580.9600	3.3696	809200	19.875	20.875	118

Sample ID: CVS BOAT 1000
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121425
Timestamp: 2010/08/12 14:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1076.3853	43.0554	9630509	20.116	21.113	131

Sample ID: ICB BOAT
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121432
Timestamp: 2010/08/12 14:33
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	78.7767	3.1511	47506	19.826	20.820	46

Sample ID: RG85 A1
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121438
Timestamp: 2010/08/12 14:42
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	85269.1875	85.2692	20477340	19.503	20.500	188

Sample ID: SB 1
Mode: TOC

Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Filename: 08121452
Timestamp: 2010/08/12 14:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	62.8533	2.5141	603768	19.505	20.500	81

Sample ID: SB 2
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121503
Timestamp: 2010/08/12 15:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	56.0011	2.3688	568876	19.778	20.769	79

Sample ID: SB 3
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121513
Timestamp: 2010/08/12 15:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	40.1570	1.8191	436859	19.849	20.843	73

Sample ID: RG85 A2
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121525
Timestamp: 2010/08/12 15:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12599.6465	26.4593	6354174	19.804	20.804	118

Sample ID: RG85 A2 DUP
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121532
Timestamp: 2010/08/12 15:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11113.3076	23.3379	5604593	19.680	20.677	114

Sample ID: RG85 A2 TRP
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121544
Timestamp: 2010/08/12 15:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8256.0518	18.1633	4361908	19.370	20.369	105

Sample ID: RG85 A2 MS
Method: Boat Sampler
Cal. Curve: BOAT CAL 08112010
Operator ID: CARLOS
Mode: TOC
Filename: 08121549
Timestamp: 2010/08/12 15:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24277.5820	48.5552	11660491	19.557	20.548	134

Sample ID: RG85 B2
Method: Boat Sampler
Mode: TOC
Filename: 08121555

Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 15:58
Operator ID: CARLOS Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8767.1660	25.4248	6105745	19.242	20.237	113

Sample ID: NBS 8704 Mode: TOC
Method: Boat Sampler Filename: 08121602
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 16:06
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32984.9336	75.8653	17509794	19.108	20.106	231

Sample ID: CVS BOAT 1000 Mode: TOC
Method: Boat Sampler Filename: 08121610
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 16:13
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1007.5974	40.3039	8969735	19.364	20.362	132

Sample ID: ICB BOAT Mode: TOC
Method: Boat Sampler Filename: 08121623
Cal. Curve: BOAT CAL 08112010 Timestamp: 2010/08/12 16:25
Operator ID: CARLOS Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82.4119	3.2965	82427	19.150	20.149	56

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Conventionals Laboratory Analyst Notes

ARI Job No.: RG78 J22/ RG94 1120 Client ID:

Parameter: TOC Soil Client Project:

List problems, concerns, corrective actions and any other pertinent information
BOTH MB SAMPLES ON DUP AND TRIP RESULTS WERE ~~OUT~~ OUT OF CONTROL LIMITS. CAUSE IS VARIANCE IN MB SAMPLE. ALL OTHER QC'S ARE WITHIN CONTROL LIMITS.

Analyst Initials:		Date:	
	CL		8-12-10

6147F

Revision 007
6/11/10

Table of Contents: ARI Job RG51

Client: Floyd/Snider

Project: POS-LLA Lora Lakes RI

	Page From:	Page To:
Inventory Sheet		
Cover Letter	1	1
Chain of Custody Documentation	2	4
Case Narrative, Data Qualifiers, Control Limits	5	22
Volatile Analysis		
Report and Summary QC Forms	23	64
Semivolatile PAH Analysis		
Report and Summary QC Forms	65	89
PCP/Chlorophenols Analysis		
Report and Summary QC Forms	90	114
TPHD Analysis		
Report and Summary QC Forms	115	132
TPHG/BETX Analysis		
Report and Summary QC Forms	133	172
Metals Analysis		
Report and Summary QC Forms	173	204
General Chemistry Analysis		
Report and Summary QC Forms	205	213
Total Solids		
Report and Summary QC Forms	214	220
Subcontracted Analysis		
Report and Summary QC Forms	& NA	NA
Volatile Raw Data		
Preparation Log	221	223
Initial Calibration	224	317
Run Logs, Continuing Calibrations, and Raw Data	318	456

Signature

August-25-2010
Date

Table of Contents: ARI Job RG51

Client: Floyd/Snider

Project: POS-LLA Lora Lakes RI

	Page From:	Page To:
Semivolatile PAH Raw Data		
Extractions Bench Sheets and Notes	457	459
Initial Calibration	460	573
Run Logs, Continuing Calibrations, and Raw Data	574	640
PCP/Chlorophenols Raw Data		
Extractions Bench Sheets and Notes	641	643
Initial Calibration	644	698
Run Logs, Continuing Calibrations, and Raw Data	699	753
TPHD Raw Data		
Extractions Bench Sheets and Notes	754	756
Initial Calibration	757	838
Run Logs, Continuing Calibrations, and Raw Data	839	934
TPHG/BETX Raw Data		
Preparation Log	935	936
Initial Calibration	937	1003
Run Logs, Continuing Calibrations, and Raw Data	1004	~~1060~~ 1057
Metals Raw Data		
Preparation Bench Sheets and Notes	~~1061~~ 1058	1060
Run Logs, Calibrations, and Raw Data	1061	1189
General Chemistry Raw Data		
Analyst Notes and Raw Data	1190	1199

Signature

August-25-2010
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

August 25, 2010

Jessi Massingale
Floyd-Snider Inc.
601 Union Street, Suite 600
Seattle, WA 98101-2341

RE: Client Project: Lora Lake RI, POS-LLA
ARI Job No: RG51

Dear Ms. Massingale:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the final data package for samples from the project referenced above.

Sample receipt and detail of these analyses are discussed in the Case Narrative.

Semivolatile PAH results for samples **PSB12-8-10-072810** and **PSB12-4-6-072810** will be reported under a separate cover.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan D. Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile RG51

SD/co

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: RG51

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

ARI Assigned Number:	Turn-around Requested: Standard
ARI Client Company: Floyd Snider	Phone: 206-292-2078
Client Contact: M. McCullough / J. Massingale	
Client Project Name: Lora Lake RI	
Client Project #: FOS-LLA	Samplers: MM, AM, KA
Page: 1 of 1	
Date: 7/28/10	Ice Present? yes
No. of Coolers:	Cooler Temps: 7.5

Sample ID	Date	Time	Matrix	No. Containers	PAHs (8270)	PCP (8041)	NWTPH-Dx	NWTPH-Gx + BETX (8021)	Arsenic + Lead (6010)	Dioxin (1613)	Select VOCs* (8260C)	TOC (Plumb-81)	Notes/Comments: *See project list for VOCs
PSB12-0-0.5-072810	7/28/10	15:25	S	9	✓	✓	✓	✓	✓	✓	✓	~~✓~~ NB	
PSB12-1.5-2.0-072810	↓	15:37	↓	9	✓	✓	✓	✓	✓	✓	✓	~~✓~~ NB	
PSB12-2-4-072810		15:43		9	✓	✓	✓	✓	✓	✓	✓	~~✓~~ NB	
PSB12-8-10-072810		16:15		9	✓	✓	✓	✓	✓	ARCHIVE	✓	✓	
PSB12-8-10-072810-D		16:20		6	✓	✓	✓	✓	✓	ARCHIVE	✓	✓	
PSB12-14-17-072810		16:00		22	✓	✓	✓	✓	✓	ARCHIVE	✓	✓	Run MS/MSD
PSB12-4-6-072810		15:56		9	✓	✓	✓	✓	✓	ARCHIVE	✓		
PSB12-TB		17:15	W	3				✓			✓		

NB

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
	(Signature) [signature]	(Signature) [signature]	(Signature)	(Signature)
	Printed Name: Meg McCullough	Printed Name: Jennifer Millsap	Printed Name:	Printed Name:
	Company: F/S	Company: ARI	Company:	Company:
	Date & Time: 7/28/10 17:55	Date & Time: 7/28/10 1755	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Floyd Snider Project Name: Lora Lake

COC No(s): (NA) Delivered by: Fed-Ex UPS Courier (Hand Delivered) Other:

Assigned ARI Job No: RG51 Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 7.5 5.1 0.1 2.7

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 9-877952

Cooler Accepted by: W/JM Date: 7/28/10 Time: 1800

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	NA	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI : (NA) YES Date/Time: Equipment: Split by:

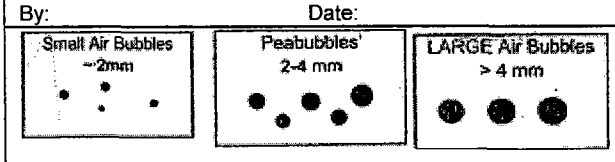
Samples Logged by: MM Date: 7/30/10 Time: 1034

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: RG51

Case Narrative

Client: Floyd Snider
Project: Lora Lake RI, POS-LLA
Matrix: Sediment
ARI Job No.: RG51

Sample receipt

Analytical Resources, Inc. (ARI) accepted seven soil samples and a trip blank on July 28, 2010 under ARI job RG51. The cooler temperature measured by IR thermometer following ARI SOP was 7.5°C. For details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

Dioxin/Furan analyses were subcontracted to Frontier Analytical Laboratory in El Dorado Hills, CA. The dioxin data on CD as generated by Frontier is forwarded with this package.

Volatiles by SW8260C

The samples and associated laboratory QC were analyzed within method recommended holding times.

Initial and continuing calibrations were within method requirements. Internal standards were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike percent recoveries of Trichloroethene and Tetrachloroethene fell outside the advisory control limits low for sample **PSB12-14-17-072810**. No corrective action is required for matrix QC.

PAHs by SW8270D

The samples were initially screened to determine if a response was present that would require modifications in the extraction process. No modifications were required. The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements. Internal standards were within limits.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Pentachlorophenol by SW8041

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limit. The LCS percent recovery was within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Acid/Silica Cleaned NWTPH-Dx

The samples and associated laboratory QC were extracted and analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

BETX by SW8021B Mod and NWTPH-Gx

The samples and associated laboratory QC were analyzed within the method recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank was clean at the reporting limits. The LCS and LCSD percent recoveries were within control limits.

The matrix spike and matrix spike duplicate percent recoveries were within advisory control limits.

Total Arsenic and Lead by SW846 6010B

The samples and associated laboratory QC were digested and analyzed within the method recommended holding time.

The method blank was clean at the reporting limits. The LCS percent recoveries were within control limits.

The SRM results were within advisory ranges.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

General Chemistry (TOC/TS)

The samples and associated laboratory QC were prepared and analyzed within the method recommended holding time.

The method blanks were clean at the reporting limits. The LCS percent recovery was within control limits.

The SRM percent recovery was within limits.

The matrix spike percent recovery and replicate RSDs were within control limit.

Data Reporting Qualifiers

Effective 7/10/2009

Inorganic Data

U Indicates that the target analyte was not detected at the reported concentration

* Duplicate RPD is not within established control limits

B Reported value is less than the CRDL but ≥ the Reporting Limit

N Matrix Spike recovery not within established control limits

NA Not Applicable, analyte not spiked

H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U Indicates that the target analyte was not detected at the reported concentration

* Flagged value is not within established control limits

B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J Estimated concentration when the value is less than ARI's established reporting limits

D The spiked compound was not detected due to sample extract dilution

E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

8/12//2010

SURR SOLUTIONS

LABEL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
A	1752-2	ABN	100/150	MEOH	01/22/11
B	1747-2	SIM PNA	15/75	MEOH	10/07/10
C	1705-4	SIM ABN	25/37.5	MEOH	03/08/11
D	1751-1	LOW PCB	0.2	HEXANE	12/29/10
E	1661-2	HERB	62.5	MEOH	10/02/10
F	1683-3	PCP	12.5	ACETONE	12/09/10
G	1707-2	1,4DIOXANE	100	MEOH	03/19/11
H	1723-2	OP-PEST	25	MEOH	04/02/11
I	1747-1	LOW S. PNA	1.5	MEOH	10/07/10
J	1681-2	TBT-PORE	0.125	MECL2	12/01/10
K	1689-1	MED PCB	20	ACETONE	12/29/10
L	1681-1	TBT	2.5	MECL2	12/01/10
M	1682-1	EPH	1500	MECL2	09/17/10
N	1689-3	PCB	2	ACETONE	12/29/10
O	1755-1	TPH	450	MECL2	06/02/11
P	1742-2	HCID	2250	MECL2	05/13/11
Q	1620-2	EDB	1	MEOH	06/22/10
R	1615-1	RESIN ACID	250	ACETONE	06/17/10
S*	1568-5	PBDE	.25	MEOH	01/13/11
T	1674-2	ALKYL PNA	10	MEOH	07/30/10
U	1633-1	CONGENER	2.5	ACETONE	08/11/10
V					
*reverified solution					

LCS SOLUTIONS

8/12/2010

LABL	SOLN ID	TEST	CONC. UG/ML	SOLVENT	EXP.
1	1754-4	PCB 1660	20	ACETONE	03/30/11
2#		BCOC PEST	10	ACETONE	NA
3	1705-3	PEST	02/04/20	ACETONE	03/08/11
4	1744-3	LOW PEST	0.2/0.4/2	ACETONE	03/08/11
5	1677-1	EPH	1500	MECL2	11/12/10
6	1702-2	PCP	12.5/125	ACETONE	02/18/11
7	1750-1	ABN	100	ACETONE	01/31/11
8	1681-4	TBT	2.5	MECL2	12/01/10
9	1682-2	PORE TBT	.125/.25	MECL2	12/01/10
10	1749-1	ABN ACID	100/200	MECL2	01/28/11
11	1730-2	TPHD	15000	ACETONE	04/26/11
12	1749-2	ABN BASE	200	MEOH	01/29/11
13	1716-2	LOW PCB	2	ACETONE	03/30/11
14	1753-3	LOW ABN ACID	10/20	MEOH	01/28/11
15	1726-3	SIM PNA	15/75	MEOH	10/07/10
16	1707-1	DIOXANE	100	MEOH	11/05/10
17	1644-1	1248 PCB	10	ACETONE	09/10/10
18	1726-4	LOW SIM PNA	1.5	ACETONE	10/07/10
19	1746-3	AK103	7500	ACETONE	12/01/10
20	1682-4	PNA	100	ACETONE	12/04/10
21	1725-1	SKY/BHT	100	MEOH	03/18/11
22	1728-1	HERB	12.5/12500	MEOH	10/20/10
23	1753-4	LW ABN BASE	20	MEOH	01/29/11
24	1696-1	LOW ABN	10	ACETONE	01/13/11
25#		DIPHENYL	100	MEOH	NA
26	1723-3	OP-PEST	25	MEOH	11/20/10
27	1668-3	STEROLS	200	MEOH	10/30/10
28#	1750-2	ADD. PEST	4	ACETONE	09/03/10
29#		DECANES	100	MEOH	NA
30	1620-1	EDB/DBCP	0.2	MEOH	06/22/10

LCS SOLUTIONS

8/12/2010

31	1707-3	TERPINEOL	100	MEOH	03/19/11
32	1619-3	GUAIACOL	50-200	ACETONE	04/30/10
33	1639-3	RETENE	100	MEOH	09/03/10
34	1633-1	CONGENERS	2.5	ACETONE	08/11/10
35	1674-3	ALKYL PNA A	10	MEOH	10/28/10
36	1601-3	ALKYL PNA B	10	MEOH	05/13/10
50	1617-1	FULL RESIN	250	ACETONE	06/17/10
51	1696-3	DDTS	2.5	ACETONE	06/03/10
52	1613-5	1232 PCB	20	ACETONE	06/16/10
53	1703-3	DALAPON	50	MEOH	09/11/10
53	1701-2	PBDE	0.5	ACETONE	02/10/11
54	1753-1	T-CHLORDANE	10	ACETONE	07/21/11
55	1753-2	TOXAPHENE	50	ACETONE	07/21/11
#=PROJECT SPECIFIC SOLUTION					
*=REVERIFIED SOLUTION					

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Analysis of Solid Samples Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C 5 mL Purge Volume [7]

Effective:5/18/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	Low Level [1]	Low Level ME Limits [3]	Medium Level [2]	Medium Level ME Limits [3]
LCS Spike Recovery [8]				
Dichlorodifluoromethane	53 - 148	37 - 164	25 - 128	**10** - 145
Chloromethane	64 - 125	54 - 135	55 - 121	44 - 132
Vinyl Chloride	63 - 137	51 - 149	66 - 123	57 - 133
Bromomethane	57 - 136	44 - 149	40 - 154	21 - 173
Chloroethane	64 - 131	53 - 142	72 - 128	63 - 137
Trichlorofluoromethane	69 - 132	59 - 143	69 - 135	58 - 146
Acrolein	54 - 137	40 - 151	39 - 135	23 - 151
1,1,2-Trichloro-1,2,2-trifluoroethane	74 - 130	65 - 139	65 - 139	53 - 151
Acetone	60 - 131	48 - 143	55 - 130	43 - 143
1,1-Dichloroethene	75 - 126	67 - 135	73 - 133	63 - 143
Bromoethane	76 - 126	68 - 134	74 - 133	64 - 143
Methyl Iodide	65 - 139	53 - 151	47 - 155	29 - 173
Methylene Chloride	70 - 123	61 - 132	**80 - 120**	75 - 122
Acrylonitrile	67 - 125	57 - 135	62 - 129	51 - 140
Methyl tert-Butyl Ether	70 - 120	62 - 128	69 - 128	59 - 138
Carbon Disulfide	71 - 129	61 - 139	64 - 135	52 - 147
trans-1,2-Dichloroethene	80 - **120**	74 - 126	78 - 125	70 - 133
Vinyl Acetate	60 - 136	47 - 149	66 - 132	55 - 143
1,1-Dichloroethane	**80 - 120**	75 - 124	77 - 124	69 132
2-Butanone	70 - **120**	62 - 127	65 - 126	55 - 136
2,2-Dichloropropane	74 - 123	66 - 131	75 - 127	66 - 136
cis-1,2-Dichloroethene	**80 - 120**	76 - 123	**80** - 125	74 - 132
Chloroform	80 - **120**	74 - 123	**80** - 124	73 - 131
Bromodichloromethane	77 - 121	70 - 128	78 - 130	69 - 139
1,1,1-Trichloroethane	77 - 121	70 - 128	76 - 130	67 - 139
1,1-Dichloropropene	**80 - 120**	77 - 123	77 - 131	68 - 140
Carbon Tetrachloride	77 - 122	70 - 130	74 - 129	65 - 138
1,2-Dichloroethane	76 - **120**	69 - 123	73 - 123	65 - 131
Benzene	**80** - 120	80 - 126	**80 - 120**	75 - 130
Trichloroethene	**80 - 120**	77 - 123	**80** - 125	75 - 132
1,2-Dichloropropane	**80 - 120**	76 - 120	**80** - 122	74 - 129
Bromochloromethane	80 - 120	73 - 127	**80** - 127	73 - 135
Dibromomethane	80 - **120**	74 - 121	**80** - 121	76 - 128
2-Chloroethylvinylether	**10** - 191	**10** - 222	61 - 128	50 - 139

Spike Recovery Control Limits for Analysis of Solid Samples Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C 5 mL Purge Volume [7]

Effective:5/18/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	Low Level [1]	Low Level ME Limits [3]	Medium Level [2]	Medium Level ME Limits [3]
4-Methyl-2-Pentanone	67 - **120**	59 - 125	80 - 123	73 - 130
cis-1,3-Dichloropropene	74 - **120**	67 - 125	80 - 122	73 - 129
Toluene	**80** - **120**	79 - **120**	**80** - 122	**80** - 127
trans-1,3-Dichloropropene	65 - **120**	57 - 125	**80** - 123	79 - 129
2-Hexanone	65 - 130	54 - 141	58 - 129	46 - 141
1,1,2-Trichloroethane	**80** - **120**	75 - 122	**80** - 120	77 - 126
1,3-Dichloropropane	80 - **120**	74 - 122	**80** - 120	76 - 126
Tetrachloroethene	**80** - 121	79 - 127	**80** - 130	73 - 138
Dibromochloromethane	64 - **120**	55 - 128	77 - 120	70 - 127
Ethylene Dibromide	75 - **120**	68 - 124	**80** - **120**	**80** - 120
Chlorobenzene	**80** - **120**	82 - 120	**80** - 121	80 - 127
Ethylbenzene	**80** - 127	80 - 134	**80** - 126	**80** - 132
1,1,2,2-Tetrachloroethane	74 - 120	66 - 128	79 - **120**	73 - 123
m,p-Xylene	**80** - 125	**80** - 131	**80** - 130	**80** - 137
o-Xylene	78 - **120**	71 - 126	**80** - 124	**80** - 130
Styrene	**80** - 123	78 - 130	**80** - 132	77 - 140
Isopropylbenzene	**80** - 127	84 - 133	**80** - 130	**80** - 137
Bromoform	60 - **120**	50 - 128	68 - 129	58 - 139
1,1,1,2-Tetrachloroethane	69 - 121	60 - 130	**80** - 126	76 - 133
1,2,3-Trichloropropane	72 - 121	64 - 129	77 - **120**	71 - 121
trans-1,4-Dichloro-2-butene	65 - 126	55 - 136	66 - 127	56 - 137
n-Propylbenzene	**80** - 132	**80** - 139	**80** - 132	77 - 140
Bromobenzene	**80** - **120**	78 - 122	**80** - 121	80 - 127
1,3,5-Trimethylbenzene	**80** - 125	**80** - 131	78 - 137	68 - 147
2-Chlorotoluene	**80** - 125	77 - 132	**80** - 123	**80** - 129
4-Chlorotoluene	**80** - 127	77 - 134	**80** - 130	74 - 138
tert-Butylbenzene	87 - 122	**80** - 128	**80** - 133	78 - 141
1,2,4-Trimethylbenzene	**80** - 126	**80** - 132	**80** - 131	79 - 139
sec-Butylbenzene	**80** - 134	80 - 142	**80** - 136	76 - 146
4-Isopropyltoluene	**80** - 131	**80** - 138	**80** - 141	71 - 151
1,3-Dichlorobenzene	**80** - 120	**80** - 126	**80** 126	77 - 133
1,4-Dichlorobenzene	**80** - 120	79 - 126	**80** 121	77 - 127
n-Butylbenzene	**80** - 138	**80** - 146	**80** - 138	77 - 147
1,2-Dichlorobenzene	**80** - **120**	78 - 122	**80** - **120**	**80** - 121
1,2-Dibromo-3-chloropropane	59 - 120	49 - 130	67 - 121	58 - 130
1,2,4-Trichlorobenzene	78 - 130	69 - 139	**80** - 133	72 - 142

Spike Recovery Control Limits for Analysis of Solid Samples Volatile Organic Compounds (VOA) EPA SW-846 Methods 8260C 5 mL Purge Volume [7]

Effective:5/18/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	Low Level [1]	Low Level ME Limits [3]	Medium Level [2]	Medium Level ME Limits [3]
Hexachloro-1,3-butadiene	76 - 129	67 - 138	62 - 148	48 - 162
Naphthalene	66 - **120**	58 - 126	74 - 133	64 - 143
1,2,3-Trichlorobenzene	73 - 123	65 - 131	80 - 126	72 - 134
MB/LCS Surrogate Recovery				
Dibromofluoromethane	**80 - 120**	(4)	**80 - 120**	(4)
d4-1,2-Dichloroethane	79 - 121	(4)	76 - **120**	(4)
d8-Toluene	**80 - 120**	(4)	**80 - 120**	(4)
4-Bromofluorobenzene	**80 - 120**	(4)	**80 - 120**	(4)
d4-1,2-Dichlorobenzene	**80 - 120**	(4)	**80 - 120**	(4)
Sample Surrogate Recovery				
Dibromofluoromethane	30 - 160[6]	(4)	30 - 160[6]	(4)
d4-1,2-Dichloroethane	75 - 152	(4)	69 - **120**	(4)
d8-Toluene	82 - 115	(4)	**80 - 120**	(4)
4-Bromofluorobenzene	64 - **120**	(4)	76 - 128	(4)
d4-1,2-Dichlorobenzene	**80 - 120**	(4)	**80 - 120**	(4)

(1) Control Limits calculated using all data generated 1/1/08 through 12/31/08.
(2) Control Limits calculated using all data generated 3/1/07 through 11/15/07.
(3) **ME** = A **marginal exceedance** defined in the NELAC Standard[5] as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of four marginal exceedances are acceptable. Five or more marginal exceedances require corrective action.
(4) Marginal Exceedances not allowed for surrogate standards
(5) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.
(6) 30 – 160 are default, advisory control limits used when there is insufficient data to calculate historic control limits. **DO NOT** use these limits as the sole reason to reject the data from a batch of analyses
(7) Highlighted control limits (**bold font**) are adjusted from the calculated values as follows:
a) ARI does not use control limits < 10
b) Control limits for analyzes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.
(8) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Polycyclic Aromatic Hydrocarbons EPA Method SW-846-8270D [1,2]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Sample Matrix	Water		Soil	
Sample Volume / Final Volume	**500 mL to 0.5 mL**		**7.5 g / 0.5 mL**	
LCS Spike Recovery [6]	**Control Limits**	**ME Limits [3]**	**Control Limits**	**ME Limits [3]**
Napthalene	30 - **100**	21 - **100**	37 - **100**	31 - **100**
2-Methylnapthalene	33 - 108	21 - 121	43 - 101	33 - 111
1-Methylnapthalene	34 - **100**	26 - **100**	39 - **100**	32 - **100**
Acenaphthylene	45 - **100**	38 - **100**	44 - **100**	37 - **100**
Acenapthene	40 - **100**	32 - **100**	41 - **100**	35 - **100**
Dibenzofuran	45 - **100**	37 - **100**	44 - **100**	37 - **100**
Fluorene	45 - **100**	37 - 105	49 - **100**	43 - **100**
Phenanthrene	47 - 101	38 - 110	48 - **100**	42 - **100**
Anthracene	47 - **100**	38 - 108	50 - **100**	44 - **100**
Fluoranthene	48 - 110	38 - 120	54 - **100**	47 - 107
Pyrene	48 - 109	38 - 119	41 - 105	30 - 116
Benz(a)anthracene	44 - 105	34 - 115	49 - **100**	42 - 102
Chyrsene	50 - 103	41 - 112	50 - **100**	43 - 101
Benzofluoranthene(s) (Total)	30 - 160[7]	30 - 160[7]	30 - 160[7]	30 - 160[7]
Benzo(a)pyrene	44 - 107	34 - 118	50 - **100**	42 - 105
Indeno(1,2,3-cd)pyrene	30 - 106	17 - 119	33 - 101	22 - 112
Dibenzo(a,h)anthracene	42 - 103	32 - 113	37 - 104	26 - 115
Benzo(g,h,i)Perylene	42 - 102	32 - 112	33 - 107	21 - 119
MB / LCS Surrogate Recovery		-		
d14-p-Terphenyl	52 - 110	(5)	47 - 112	(5)
2-Fluorobiphenyl	36 - **100**	(5)	40 - **100**	(5)
Sample Surrogate Recovery				
d14-p-Terphenyl	23 - 120	(5)	35 - 112	(5)
2-Fluorobiphenyl	38 - **100**	(5)	34 - **100**	(5)

(1) Control limits calculated using all available spike recovery data from 7/1/07 through 2/27/09.
(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
(3) **ME** = A marginal exceedance defined in the NELAC Standard (4) as beyond the LCS-CL but still within the ME limits. ME limits are between 3 and 4 standard deviations around the mean. A maximum of one marginal exceedance is acceptable. Two or more marginal exceedances require corrective action.
(4) **2003 NELAC Standard (EPA/600/R-04/003), July 2003**, Chapter 5, pages 251-252.
(5) Marginal Exceedances are not allowed for surrogate standards.
(6) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
(7) Default limits pending generation of historic limits for total benzofluoranthrenes (7/29/10)

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Chlorinated Phenols
EPA Method SW-846-8041[1,2]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Calculated Control Limits	
Sample Matrix:	Water	Soil / Sediment
Sample Amount / Final Volume:	500 / 50 mL	10 g / 25 mL
LCS Spike Recovery [3]		
Pentachlorophenol	27 - 115	**10** - 162
Method Blank/LCS Surrogate Recovery		
2,4,6-Tribromophenol	40 - 130	50 - 115
Sample Surrogate Recovery		
2,4,6-Tribromophenol	11 - 156	**10** - 146

(1) ARI's Control limits calculated using all available spike recovery data from 1/1/08 through 12/1/08.
(2) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10.
(3) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits Hydrocarbon Identification (NWTPH-HCID) and Diesel Range Petroleum Hydrocarbons (NWTPH-D & AK-102) [1]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Method:	NWTPH-HCID [2]	NWTPH-D		AK102 [2]
Sample Matrix:	Water& Soil	Water	Soil	Water & Soil
Preparation:	500 to 1 mL	500 to 1 mL	10g to 1 mL	500 to 1 mL or 10g to 1 mL
LCS Spike Recovery [3]				
Diesel	-- - --	56 - 103	55 - 104	75 - 125
Diesel with Acid & Silica Clean-up	-- - --	43 - 100	54 - 96	(4)
Diesel with Silica Clean-up	-- --	43 - 100	54 - 96	75 - 125
Method Blank/LCS Surrogate Recovery				
o-Terphenyl	-- - --	57 - 120	58 - 121	60 - 120
o-Terphenyl with Acid & Silica Clean-up	-- - --	51 - 120	63 - 115	(4)
o-Terphenyl Silica Clean-up		51 - 120	63 - 115	60 - 120
Sample Surrogate Recovery				
o-Terphenyl	50 - 150	35 - 131	53 - 118	50 - 150
o-Terphenyl with Acid & Silica Clean-up	-- - --	41 - 121	49 - 120	(4)
o-Terphenyl with Silica Clean-up		41 - 121	49 - 120	50 - 150

1. Control Limits calculated using all data generated 1/1/08 through 12/31/08
2. Method specified, non-prescriptive limits. The NWTPH-HCID Method does not include LCS or MS analyses.
3. Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.
4. Alaska State UST Methods do not allow acid cleanup of sample extracts.

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits BTEX – EPA Method 8021 & Gasoline – Methods NWTPH-G and AK101[1,2]

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Sample Matrix:	Aqueous Samples		Soil / Sediment Samples	
Analytical Method:	Method 8021B	NWTPH-G AK-101	Method 8021B	NWTPH-G AK-101
LCS Spike Recovery [3]				
Benzene	73 - **120**		72 - **120**	
Toluene	73 - **120**		72 - **120**	
Ethyl benzene	69 - **120**		71 - **120**	
m,p-Xylenes	72 - **120**		72 - **120**	
o-Xlyene	73 - **120**		72 - **120**	
MTBE	30 - 182		40 - 163	
Gasoline		75 - 124		74 - 124
Method Blank/LCS Surrogate Recovery				
Trifluorotoluene (TFT)	79 - **120**	**80 - 120**	80 - **120**	**80 - 120**
Bromobenzene	79 - **120**	**80 - 120**	77 - **120**	**80 - 120**
Sample Surrogate Recovery				
Trifluorotoluene (TFT)	**80 - 120**	**80** - 120	68 - 124	66 - 123
Bromobenzene	**80 - 120**	**80** - 120	62 - 134	62 - 130

(1) Control Limits calculated using all data generated 1/1/08 through 12/31/08.
(2) Highlighted control limits (bold font) are adjusted from the calculated values as follows:
a) Highlighted control limits (**bold font**) adjusted to demonstrate that ARI does not use control limits < 10 for the lower limit or < 100 for the upper limit.
b) Control limits for analytes with no separate preparation procedure are adjusted to reflect the minimum uncertainty in the calibration of the instrument allowed by the referenced analytical method.
(3) Laboratory Control Sample (LCS) spike recovery control limits also used as advisory control limits for sample matrix spike (MS) analyzes. MS recovery values are advisory and not used to assess the acceptability of an analytical batch.

Summary of Laboratory Control Limits Metals Analyses (All Methods & Sample Matrices)

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

Element	Matrix Spike Recovery	LCS Recovery	Replicate RPD
Aluminum	75 - 125	80 - 120	≤ 20%
Antimony	75 - 125	80 - 120	≤ 20%
Arsenic	75 - 125	80 - 120	≤ 20%
Barium	75 - 125	80 - 120	≤ 20%
Beryllium	75 - 125	80 - 120	≤ 20%
Boron	75 - 125	80 - 120	≤ 20%
Cadmium	75 - 125	80 - 120	≤ 20%
Calcium	75 - 125	80 - 120	≤ 20%
Chromium	75 - 125	80 - 120	≤ 20%
Cobalt	75 - 125	80 - 120	≤ 20%
Copper	75 - 125	80 - 120	≤ 20%
Iron	75 - 125	80 - 120	≤ 20%
Lead	75 - 125	80 - 120	≤ 20%
Magnesium	75 - 125	80 - 120	≤ 20%
Manganese	75 - 125	80 - 120	≤ 20%
Mercury	75 - 125	80 - 120	≤ 20%
Nickel	75 - 125	80 - 120	≤ 20%
Potassium	75 - 125	80 - 120	≤ 20%
Selenium	75 - 125	80 - 120	≤ 20%
Silica	75 - 125	80 - 120	≤ 20%
Silver	75 - 125	80 - 120	≤ 20%
Sodium	75 - 125	80 - 120	≤ 20%
Strontium	75 - 125	80 - 120	≤ 20%
Thallium	75 - 125	80 - 120	≤ 20%
Vanadium	75 - 125	80 - 120	≤ 20%
Zinc	75 - 125	80 - 120	≤ 20%

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Volatile Analysis
Report and Summary QC Forms

ARI Job ID: RG51

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C Sample ID: PSB12-0-0.5-072810
  SAMPLE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/03/10 00:27

Sample Amount: 8.43 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 9.1%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	124%
d8-Toluene	104%
Bromofluorobenzene	94.7%
d4-1,2-Dichlorobenzene	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C Sample ID: PSB12-1.5-2.0-072810
  SAMPLE

Lab Sample ID: RG51B
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/03/10 00:53

Sample Amount: 7.33 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 5.9%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
79-01-6	Trichloroethene	0.7	< 0.7	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	127%
d8-Toluene	106%
Bromofluorobenzene	88.6%
d4-1,2-Dichlorobenzene	105%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: PSB12-2-4-072810**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RG51C
LIMS ID: 10-18185
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/03/10 01:19

Sample Amount: 9.61 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 6.7%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.5	< 0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	< 0.5	U
107-06-2	1,2-Dichloroethane	0.5	< 0.5	U
79-01-6	Trichloroethene	0.5	< 0.5	U
127-18-4	Tetrachloroethene	0.5	< 0.5	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	123%
d8-Toluene	104%
Bromofluorobenzene	84.9%
d4-1,2-Dichlorobenzene	96.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: PSB12-8-10-072810**
Page 1 of 1 **SAMPLE**

Lab Sample ID: RG51D
LIMS ID: 10-18186
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/03/10 23:49

Sample Amount: 6.78 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 4.6%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.7	< 0.7	U
156-59-2	cis-1,2-Dichloroethene	0.7	< 0.7	U
107-06-2	1,2-Dichloroethane	0.7	< 0.7	U
79-01-6	Trichloroethene	0.7	< 0.7	U
127-18-4	Tetrachloroethene	0.7	< 0.7	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	121%
d8-Toluene	101%
Bromofluorobenzene	89.7%
d4-1,2-Dichlorobenzene	104%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1

Sample ID: PSB12-8-10-072810-D
SAMPLE

Lab Sample ID: RG51E
LIMS ID: 10-18187
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/04/10 00:15

Sample Amount: 6.33 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 4.6%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.8	< 0.8	U
156-59-2	cis-1,2-Dichloroethene	0.8	< 0.8	U
107-06-2	1,2-Dichloroethane	0.8	< 0.8	U
79-01-6	Trichloroethene	0.8	< 0.8	U
127-18-4	Tetrachloroethene	0.8	< 0.8	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	128%
d8-Toluene	104%
Bromofluorobenzene	89.7%
d4-1,2-Dichlorobenzene	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C Sample ID: PSB12-14-17-072810
  SAMPLE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/04/10 00:41

Sample Amount: 8.88 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 4.7%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	133%
d8-Toluene	105%
Bromofluorobenzene	97.6%
d4-1,2-Dichlorobenzene	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1

Sample ID: PSB12-4-6-072810
SAMPLE

Lab Sample ID: RG51G
LIMS ID: 10-18189
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/04/10 01:08

Sample Amount: 9.02 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 8.4%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.6	< 0.6	U
156-59-2	cis-1,2-Dichloroethene	0.6	< 0.6	U
107-06-2	1,2-Dichloroethane	0.6	< 0.6	U
79-01-6	Trichloroethene	0.6	< 0.6	U
127-18-4	Tetrachloroethene	0.6	< 0.6	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	137%
d8-Toluene	106%
Bromofluorobenzene	95.7%
d4-1,2-Dichlorobenzene	104%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C
Page 1 of 1

Sample ID: PSB12-TB
TRIP BLANK

Lab Sample ID: RG51H
LIMS ID: 10-18190
Matrix: Water
Data Release Authorized: MW
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/04/10 01:34

Sample Amount: 5.00 mL
Purge Volume: 5.0 mL

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in µg/L (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	120%
d8-Toluene	106%
Bromofluorobenzene	93.0%
d4-1,2-Dichlorobenzene	104%

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA

ARI ID	Client ID	Level	DCE	TOL	BFB	DCB	TOT OUT
MB-080210	Method Blank	Low	103%	101%	93.4%	102%	0
LCS-080210	Lab Control	Low	96.9%	103%	98.8%	97.0%	0
LCSD-080210	Lab Control Dup	Low	104%	104%	98.9%	101%	0
RG51A	PSB12-0-0.5-072810	Low	124%	104%	94.7%	102%	0
RG51B	PSB12-1.5-2.0-072810	Low	127%	106%	88.6%	105%	0
RG51C	PSB12-2-4-072810	Low	123%	104%	84.9%	96.3%	0
RG51D	PSB12-8-10-072810	Low	121%	101%	89.7%	104%	0
RG51E	PSB12-8-10-072810-D	Low	128%	104%	89.7%	106%	0
MB-080310	Method Blank	Low	108%	106%	93.8%	102%	0
LCS-080310	Lab Control	Low	89.5%	105%	97.6%	97.9%	0
LCSD-080310	Lab Control Dup	Low	104%	105%	98.2%	100%	0
RG51F	PSB12-14-17-072810	Low	133%	105%	97.6%	106%	0
RG51FMS	PSB12-14-17-072810	Low	119%	102%	99.6%	104%	0
RG51FMSD	PSB12-14-17-072810	Low	112%	104%	96.8%	102%	0
RG51G	PSB12-4-6-072810	Low	137%	106%	95.7%	104%	0

	LCS/MB LIMITS		QC LIMITS	
SW8260C	Low	Med	Low	Med
(DCE) = d4-1,2-Dichloroethane	79-121	76-120	75-152	69-120
(TOL) = d8-Toluene	80-120	80-120	82-115	80-120
(BFB) = Bromofluorobenzene	80-120	80-120	64-120	76-128
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120	80-120	80-120

Log Number Range: 10-18183 to 10-18189

ANALYTICAL RESOURCES INCORPORATED

VOA SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA

ARI ID	Client ID	PV	DCE	TOL	BFB	DCB	TOT OUT
RG51H	PSB12-TB	5	120%	106%	93.0%	104%	0

SW8260C	LCS/MB LIMITS	QC LIMITS
(DCE) = d4-1,2-Dichloroethane	80-122	80-125
(TOL) = d8-Toluene	80-120	80-120
(BFB) = Bromofluorobenzene	80-120	80-120
(DCB) = d4-1,2-Dichlorobenzene	80-120	80-120

Prep Method: SW5030B
Log Number Range: 10-18190 to 10-18190

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: PSB12-14-17-072810**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized: MW
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst MS: FINN5/PAB
MSD: FINN5/PAB
Date Analyzed MS: 08/04/10 03:46
MSD: 08/04/10 04:12

Sample Amount MS: 9.11 g-dry-wt
MSD: 9.20 g-dry-wt
Purge Volume MS: 5.0 mL
MSD: 5.0 mL
Moisture: 4.7%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
trans-1,2-Dichloroethene	< 0.6 U	23.0	27.4	83.9%	27.6	27.2	101%	18.2%
cis-1,2-Dichloroethene	< 0.6 U	23.3	27.4	85.0%	28.7	27.2	106%	20.8%
1,2-Dichloroethane	< 0.6 U	22.7	27.4	82.8%	28.5	27.2	105%	22.7%
Trichloroethene	< 0.6 U	18.9	27.4	69.0%	25.5	27.2	93.8%	29.7%
Tetrachloroethene	< 0.6 U	14.3	27.4	52.2%	22.6	27.2	83.1%	45.0%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: PSB12-14-17-072810**
Page 1 of 1 **MATRIX SPIKE**

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/04/10 03:46

Sample Amount: 9.11 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 4.7%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.6	---	
156-59-2	cis-1,2-Dichloroethene	0.6	---	
107-06-2	1,2-Dichloroethane	0.6	---	
79-01-6	Trichloroethene	0.6	---	
127-18-4	Tetrachloroethene	0.6	---	

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	119%
d8-Toluene	102%
Bromofluorobenzene	99.6%
d4-1,2-Dichlorobenzene	104%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: PSB12-14-17-072810**
Page 1 of 1 **MATRIX SPIKE DUP**

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/04/10 04:12

Sample Amount: 9.20 g-dry-wt
Purge Volume: 5.0 mL
Moisture: 4.7%

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	0.5	---	
156-59-2	cis-1,2-Dichloroethene	0.5	---	
107-06-2	1,2-Dichloroethane	0.5	---	
79-01-6	Trichloroethene	0.5	---	
127-18-4	Tetrachloroethene	0.5	---	

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	112%
d8-Toluene	104%
Bromofluorobenzene	96.8%
d4-1,2-Dichlorobenzene	102%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-080210**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-080210
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized: NW
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: FINN5/PAB
LCSD: FINN5/PAB
Date Analyzed LCS: 08/02/10 18:24
LCSD: 08/02/10 18:57

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
trans-1,2-Dichloroethene	48.7	50.0	97.4%	45.9	50.0	91.8%	5.9%
cis-1,2-Dichloroethene	49.6	50.0	99.2%	47.6	50.0	95.2%	4.1%
1,2-Dichloroethane	50.2	50.0	100%	47.2	50.0	94.4%	6.2%
Trichloroethene	49.2	50.0	98.4%	47.2	50.0	94.4%	4.1%
Tetrachloroethene	48.8	50.0	97.6%	45.8	50.0	91.6%	6.3%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	96.9%	104%
d8-Toluene	103%	104%
Bromofluorobenzene	98.8%	98.9%
d4-1,2-Dichlorobenzene	97.0%	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: LCS-080310**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-080310
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst LCS: FINN5/PAB
LCSD: FINN5/PAB
Date Analyzed LCS: 08/03/10 18:05
LCSD: 08/03/10 18:43

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Purge Volume LCS: 5.0 mL
LCSD: 5.0 mL
Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
trans-1,2-Dichloroethene	48.9	50.0	97.8%	50.0	50.0	100%	2.2%
cis-1,2-Dichloroethene	50.2	50.0	100%	50.4	50.0	101%	0.4%
1,2-Dichloroethane	51.7	50.0	103%	49.5	50.0	99.0%	4.3%
Trichloroethene	51.5	50.0	103%	50.4	50.0	101%	2.2%
Tetrachloroethene	50.3	50.0	101%	47.2	50.0	94.4%	6.4%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

Volatile Surrogate Recovery

	LCS	LCSD
d4-1,2-Dichloroethane	89.5%	104%
d8-Toluene	105%	105%
Bromofluorobenzene	97.6%	98.2%
d4-1,2-Dichlorobenzene	97.9%	100%

4A

VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0802

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD SNIDER

ARI Job No: RG51

Project: LORA LAKES RI

Lab File ID: MB0802

Lab Sample ID: MB0802

Date Analyzed: 08/02/10

Time Analyzed: 1950

Instrument ID: FINN5

Heated Purge: (Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS0802	LCS0802	LCS0802	1824
02	LCS0802	LCS0802	LCS0802A	1857
03	PSB12-0-0.5-	RG51A	RG51A	0027
04	PSB12-1.5-2.	RG51B	RG51B	0053
05	PSB12-2-4-07	RG51C	RG51C	0119
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C Sample ID: MB-080210
  METHOD BLANK

Lab Sample ID: MB-080210
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/02/10 19:50

Sample Amount: 5.00 g-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	103%
d8-Toluene	101%
Bromofluorobenzene	93.4%
d4-1,2-Dichlorobenzene	102%

4A

VOLATILE METHOD BLANK SUMMARY

Method Blank ID.

MB0803

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD SNIDER

ARI Job No: RG51

Project: LORA LAKES RI

Lab File ID: MB0803

Lab Sample ID: MB0803

Date Analyzed: 08/03/10

Time Analyzed: 1910

Instrument ID: FINN5

Heated Purge: (Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LCS0803	LCS0803	LCS0803	1805
02	LCS0803	LCS0803	LCS0803A	1843
03	PSB12-8-10-0	RG51D	RG51D	2349
04	PSB12-8-10-0	RG51E	RG51E	0015
05	PSB12-14-17-	RG51F	RG51F	0041
06	PSB12-4-6-07	RG51G	RG51G	0108
07	PSB12-TB	RG51H	RG51H	0134
08	PSB12-14-17-	RG51FMS	RG51FMS	0346
09	PSB12-14-17-	RG51FMSD	RG51FMSD	0412
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Volatiles by Purge & Trap GC/MS-Method SW8260C **Sample ID: MB-080310**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-080310
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/09/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Instrument/Analyst: FINN5/PAB
Date Analyzed: 08/03/10 19:10

Sample Amount: 5.00 g-dry-wt
Purge Volume: 5.0 mL
Moisture: NA

CAS Number	Analyte	RL	Result	Q
156-60-5	trans-1,2-Dichloroethene	1.0	< 1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	< 1.0	U
107-06-2	1,2-Dichloroethane	1.0	< 1.0	U
79-01-6	Trichloroethene	1.0	< 1.0	U
127-18-4	Tetrachloroethene	1.0	< 1.0	U

Reported in µg/kg (ppb)

Volatile Surrogate Recovery

d4-1,2-Dichloroethane	108%
d8-Toluene	106%
Bromofluorobenzene	93.8%
d4-1,2-Dichlorobenzene	102%

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD SNIDER

Lab Code: ARI Case No.: LORA LAKES RI SDG No.: RG51

Lab File ID: BFB07231 BFB Injection Date: 07/23/10

Instrument ID: FINN5 BFB Injection Time: 1648

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	24.7
75	30.0 - 66.0% of mass 95	49.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 101.0% of mass 95	77.4
175	4.0 - 9.0% of mass 174	5.7 (7.4)1
176	93.0 - 101.0% of mass 174	76.4 (98.8)1
177	5.0 - 9.0% of mass 176	5.5 (7.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD200	IC0723	2000723	07/23/10	1718
02	VSTD150	IC0723	1500723	07/23/10	1749
03	VSTD100	IC0723	1000723	07/23/10	1816
04	VSTD050	IC0723	0500723	07/23/10	1842
05	VSTD010	IC0723	0100723	07/23/10	1909
06	VSTD005	IC0723	0050723	07/23/10	1935
07	VSTD002	IC0723	0020723	07/23/10	2002
08	VSTD001	IC0723	0010723	07/23/10	2028
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD SNIDER

Lab Code: ARI Case No.: LORA LAKES RI SDG No.: RG51

Lab File ID: BFB0802 BFB Injection Date: 08/02/10

Instrument ID: FINN5 BFB Injection Time: 1649

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	28.8
75	30.0 - 66.0% of mass 95	52.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 101.0% of mass 95	77.3
175	4.0 - 9.0% of mass 174	5.9 (7.7)1
176	93.0 - 101.0% of mass 174	75.9 (98.2)1
177	5.0 - 9.0% of mass 176	5.1 (6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	CC0802	0500802	08/02/10	1723
02	LCS0802	LCS0802	LCS0802	08/02/10	1824
03	LCS0802	LCS0802	LCS0802A	08/02/10	1857
04	MB0802	MB0802	MB0802	08/02/10	1950
05	PSB12-0-0.5-0728	RG51A	RG51A	08/03/10	0027
06	PSB12-1.5-2.0-07	RG51B	RG51B	08/03/10	0053
07	PSB12-2-4-072810	RG51C	RG51C	08/03/10	0119
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ANALYTICAL RESOURCES, INC Contract: FLOYD SNIDER

Lab Code: ARI Case No.: LORA LAKES RI SDG No.: RG51

Lab File ID: BFB0803 BFB Injection Date: 08/03/10

Instrument ID: FINN5 BFB Injection Time: 1658

GC Column: RTX502.2 ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	28.5
75	30.0 - 66.0% of mass 95	53.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 101.0% of mass 95	69.5
175	4.0 - 9.0% of mass 174	4.8 (6.8)1
176	93.0 - 101.0% of mass 174	68.1 (98.1)1
177	5.0 - 9.0% of mass 176	4.4 (6.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	CC0803	0500803	08/03/10	1732
02	LCS0803	LCS0803	LCS0803	08/03/10	1805
03	LCS0803	LCS0803	LCS0803A	08/03/10	1843
04	MB0803	MB0803	MB0803	08/03/10	1910
05	PSB12-8-10-07281	RG51D	RG51D	08/03/10	2349
06	PSB12-8-10-07281	RG51E	RG51E	08/04/10	0015
07	PSB12-14-17-0728	RG51F	RG51F	08/04/10	0041
08	PSB12-4-6-072810	RG51G	RG51G	08/04/10	0108
09	PSB12-TB	RG51H	RG51H	08/04/10	0134
10	PSB12-14-17-072	RG51FMS	RG51FMS	08/04/10	0346
11	PSB12-14-17-072	RG51FMSD	RG51FMSD	08/04/10	0412
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

LAB FILE ID: RF1: 0010723 RF2: 0020723 RF5: 0050723
RF10: 0100723 RF50: 0500723

COMPOUND	RF1	RF2	RF5	RF10	RF50
Chloromethane	2.155	1.962	1.917	2.009	1.652
Vinyl Chloride	1.519	1.452	1.513	1.597	1.363
Bromomethane	0.934	0.851	0.777	0.625	0.810
Chloroethane	1.071	1.093	0.988	0.871	0.876
Trichlorofluoromethane	1.476	1.559	1.505	1.410	1.426
Acrolein	0.205	0.197	0.177	0.164	0.157
112Trichloro122Trifluoroetha	1.274	1.182	1.204	1.123	1.014
Acetone	0.308	0.320	0.314	0.301	0.268
1,1-Dichloroethene	1.036	1.019	1.041	1.032	0.979
Bromoethane	0.707	0.744	0.729	0.753	0.727
Iodomethane	1.011	1.066	1.142	1.140	1.253
Methylene Chloride		1.396	1.190	1.128	0.935
Acrylonitrile	0.196	0.243	0.283	0.285	0.261
Carbon Disulfide	3.372	3.310	3.395	3.282	3.176
Trans-1,2-Dichloroethene	0.815	0.825	0.806	0.895	0.794
Vinyl Acetate	1.378	1.475	1.529	1.560	1.561
1,1-Dichloroethane	1.593	1.577	1.616	1.674	1.534
2-Butanone	0.326	0.330	0.344	0.353	0.328
2,2-Dichloropropane	0.887	0.897	0.933	0.951	0.913
Cis-1,2-Dichloroethene	0.703	0.702	0.718	0.759	0.692
Chloroform	1.249	1.296	1.316	1.320	1.203
Bromochloromethane	0.301	0.323	0.367	0.357	0.335
1,1,1-Trichloroethane	0.977	0.934	0.973	0.985	0.933
1,1-Dichloropropene	0.670	0.690	0.712	0.765	0.673
Carbon Tetrachloride	0.581	0.624	0.604	0.630	0.570
1,2-Dichloroethane	0.571	0.629	0.633	0.678	0.586
Benzene	1.759	1.768	1.800	1.965	1.656
Trichloroethene	0.436	0.500	0.510	0.540	0.468
1,2-Dichloropropane	0.524	0.521	0.548	0.582	0.501
Bromodichloromethane	0.521	0.592	0.582	0.604	0.542
Dibromomethane	0.253	0.259	0.260	0.288	0.249
2-Chloroethyl Vinyl Ether		0.142	0.173	0.190	0.185
4-Methyl-2-Pentanone	0.141	0.137	0.132	0.143	0.133
Cis 1,3-dichloropropene	0.503	0.566	0.600	0.660	0.638
Toluene	1.257	1.104	1.022	1.052	0.921
Trans 1,3-Dichloropropene	0.446	0.472	0.491	0.540	0.521
2-Hexanone	0.489	0.418	0.404	0.438	0.381

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

LAB FILE ID: RF1: 0010723 RF2: 0020723 RF5: 0050723
RF10: 0100723 RF50: 0500723

COMPOUND	RF1	RF2	RF5	RF10	RF50
1,1,2-Trichloroethane	0.269	0.295	0.323	0.339	0.296
1,3-Dichloropropane	0.683	0.714	0.715	0.756	0.678
Tetrachloroethene	0.617	0.527	0.565	0.567	0.490
Chlorodibromomethane	0.427	0.440	0.465	0.502	0.453
1,2-Dibromoethane	0.301	0.328	0.338	0.349	0.322
Chlorobenzene	1.449	1.256	1.215	1.285	1.093
Ethyl Benzene	2.203	2.176	2.088	2.268	2.021
1,1,1,2-Tetrachloroethane	0.488	0.463	0.438	0.454	0.389
m,p-xylene	0.686	0.701	0.756	0.820	0.768
o-Xylene	0.597	0.672	0.700	0.773	0.750
Styrene	1.013	1.042	1.151	1.321	1.228
Bromoform	0.588	0.562	0.563	0.584	0.521
1,1,2,2-Tetrachloroethane	1.199	1.124	1.036	1.126	0.917
1,2,3-Trichloropropane		0.226	0.221	0.226	0.186
Trans-1,4-Dichloro 2-Butene		0.322	0.326	0.349	0.301
N-Propyl Benzene	4.356	4.362	4.593	5.132	4.292
Bromobenzene	0.977	0.937	0.972	1.058	0.917
Isopropyl Benzene	3.581	3.464	3.670	4.080	3.636
2-Chloro Toluene	3.123	2.806	3.073	3.372	2.810
4-Chloro Toluene	2.626	2.911	2.880	3.298	2.959
T-Butyl Benzene	2.255	2.386	2.573	2.864	2.638
1,3,5-Trimethyl Benzene	2.663	2.667	2.918	3.226	2.998
1,2,4-Trimethylbenzene	2.438	2.545	2.851	3.260	2.948
S-Butyl Benzene	3.651	3.689	3.984	4.454	4.031
4-Isopropyl Toluene	2.226	2.542	2.823	3.180	2.946
1,3-Dichlorobenzene	1.562	1.533	1.674	1.912	1.646
1,4-Dichlorobenzene	1.655	1.573	1.702	1.839	1.597
N-Butyl Benzene	2.810	2.765	3.045	3.430	3.102
1,2-Dichlorobenzene	1.537	1.602	1.638	1.750	1.517
1,2-Dibromo 3-Chloropropane	0.152	0.209	0.190	0.200	0.171
1,2,4-Trichlorobenzene	0.965	1.017	0.971	1.126	0.860
Hexachloro 1,3-Butadiene	0.585	0.688	0.689	0.751	0.589
Naphthalene	1.716	1.756	1.742	2.094	1.618
1,2,3-Trichlorobenzene	0.961	1.020	0.960	1.136	0.809
Dichlorodifluoromethane	0.618	0.692	0.660	0.633	0.675
Methyl tert-Butyl Ether	1.392	1.482	1.616	1.631	1.525

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

LAB FILE ID: RF1: 0010723 RF2: 0020723 RF5: 0050723
RF10: 0100723 RF50: 0500723

COMPOUND	RF1	RF2	RF5	RF10	RF50
d4-1,2-Dichloroethane	0.718	0.705	0.687	0.646	0.643
d8-Toluene	1.123	1.149	1.122	1.106	1.114
4-Bromofluorobenzene	0.550	0.557	0.558	0.551	0.566
d4-1,2-Dichlorobenzene	0.929	0.920	0.920	0.926	0.925
Dibromofluoromethane	0.649	0.629	0.614	0.586	0.599

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

LAB FILE ID: RF100: 1000723 RF150: 1500723 RF200: 2000723

COMPOUND	RF100	RF150	RF200
Chloromethane	1.566	1.388	1.306
Vinyl Chloride	1.358	1.171	1.061
Bromomethane	0.769	0.647	0.579
Chloroethane	0.778	0.629	
Trichlorofluoromethane	1.280	1.042	0.967
Acrolein	0.146	0.119	
112Trichloro122Trifluoroetha	0.976	0.818	0.758
Acetone	0.244	0.204	
1,1-Dichloroethene	0.934	0.797	0.739
Bromoethane	0.727	0.633	0.591
Iodomethane	1.256	1.066	1.025
Methylene Chloride	0.929	0.821	
Acrylonitrile	0.258	0.230	0.220
Carbon Disulfide	2.867	2.186	1.913
Trans-1,2-Dichloroethene	0.835	0.766	0.722
Vinyl Acetate	1.554	1.197	1.056
1,1-Dichloroethane	1.561	1.255	1.069
2-Butanone	0.323	0.268	0.247
2,2-Dichloropropane	0.956	0.876	0.855
Cis-1,2-Dichloroethene	0.742	0.687	0.690
Chloroform	1.234	1.073	0.959
Bromochloromethane	0.351	0.332	0.335
1,1,1-Trichloroethane	0.962	0.878	0.863
1,1-Dichloropropene	0.695	0.631	0.596
Carbon Tetrachloride	0.592	0.551	0.570
1,2-Dichloroethane	0.598	0.544	0.529
Benzene	1.455	1.088	
Trichloroethene	0.485	0.448	0.461
1,2-Dichloropropane	0.518	0.470	0.475
Bromodichloromethane	0.555	0.516	0.514
Dibromomethane	0.260	0.237	0.249
2-Chloroethyl Vinyl Ether	0.194	0.187	0.198
4-Methyl-2-Pentanone	0.132	0.122	0.117
Cis 1,3-dichloropropene	0.676	0.620	0.570
Toluene	0.946	0.783	0.707
Trans 1,3-Dichloropropene	0.559	0.524	0.508
2-Hexanone	0.322		

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

LAB FILE ID: RF100: 1000723 RF150: 1500723 RF200: 2000723

COMPOUND	RF100	RF150	RF200
1,1,2-Trichloroethane	0.308	0.291	0.306
1,3-Dichloropropane	0.724	0.676	0.684
Tetrachloroethene	0.546	0.543	0.590
Chlorodibromomethane	0.493	0.479	0.528
1,2-Dibromoethane	0.328	0.309	0.324
Chlorobenzene	1.173	0.982	0.930
Ethyl Benzene	1.784	1.342	
1,1,1,2-Tetrachloroethane	0.428	0.439	0.492
m,p-xylene	0.804	0.647	0.616
o-Xylene	0.840	0.828	0.865
Styrene	1.342	1.127	1.094
Bromoform	0.539	0.500	0.474
1,1,2,2-Tetrachloroethane	0.890	0.780	0.707
1,2,3-Trichloropropane	0.183	0.160	0.146
Trans-1,4-Dichloro 2-Butene	0.299	0.258	0.237
N-Propyl Benzene	3.334		
Bromobenzene	0.956	0.872	0.817
Isopropyl Benzene	3.053	2.076	
2-Chloro Toluene	2.821	1.980	
4-Chloro Toluene	2.626	1.857	
T-Butyl Benzene	2.560	1.958	1.463
1,3,5-Trimethyl Benzene	2.733	1.921	
1,2,4-Trimethylbenzene	2.800	1.985	
S-Butyl Benzene	3.263		
4-Isopropyl Toluene	2.747	2.006	
1,3-Dichlorobenzene	1.804	1.479	1.214
1,4-Dichlorobenzene	1.775	1.484	1.208
N-Butyl Benzene	2.846	1.945	
1,2-Dichlorobenzene	1.586	1.401	1.156
1,2-Dibromo 3-Chloropropane	0.158	0.137	0.128
1,2,4-Trichlorobenzene	0.913	0.825	0.739
Hexachloro 1,3-Butadiene	0.597	0.554	0.542
Naphthalene	1.558	1.287	
1,2,3-Trichlorobenzene	0.822	0.736	0.646
Dichlorodifluoromethane	0.674	0.632	0.601
Methyl tert-Butyl Ether	1.542	1.313	1.151

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

LAB FILE ID: RF100: 1000723 RF150: 1500723 RF200: 2000723

COMPOUND	RF100	RF150	RF200
d4-1,2-Dichloroethane	0.641	0.617	0.560
d8-Toluene	1.080	1.048	1.047
4-Bromofluorobenzene	0.592	0.613	0.695
d4-1,2-Dichlorobenzene	0.902	0.880	0.873
Dibromofluoromethane	0.586	0.572	0.533

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
Chloromethane	AVRG	1.744	17.8
Vinyl Chloride	AVRG	1.379	13.3
Bromomethane	AVRG	0.749	16.3
Chloroethane	AVRG	0.901	18.3
Trichlorofluoromethane	AVRG	1.333	16.4
Acrolein	AVRG	0.166	17.8
112Trichloro122Trifluoroetha	AVRG	1.044	17.8
Acetone	AVRG	0.280	15.4
1,1-Dichloroethene	AVRG	0.947	12.4
Bromoethane	AVRG	0.701	8.2
Iodomethane	AVRG	1.120	8.5
Methylene Chloride	AVRG	1.066	19.9
Acrylonitrile	AVRG	0.247	12.5
Carbon Disulfide	AVRG	2.938	19.6
Trans-1,2-Dichloroethene	AVRG	0.807	6.3
Vinyl Acetate	AVRG	1.414	13.5
1,1-Dichloroethane	AVRG	1.485	14.1
2-Butanone	AVRG	0.315	11.8
2,2-Dichloropropane	AVRG	0.909	4.0
Cis-1,2-Dichloroethene	AVRG	0.711	3.7
Chloroform	AVRG	1.206	10.6
Bromochloromethane	AVRG	0.338	6.1
1,1,1-Trichloroethane	AVRG	0.938	4.9
1,1-Dichloropropene	AVRG	0.679	7.5
Carbon Tetrachloride	AVRG	0.590	4.7
1,2-Dichloroethane	AVRG	0.596	8.3
Benzene	AVRG	1.642	17.6
Trichloroethene	AVRG	0.481	7.2
1,2-Dichloropropane	AVRG	0.518	7.1
Bromodichloromethane	AVRG	0.553	6.5
Dibromomethane	AVRG	0.257	5.7
2-Chloroethyl Vinyl Ether	AVRG	0.181	10.5
4-Methyl-2-Pentanone	AVRG	0.132	6.7
Cis 1,3-dichloropropene	AVRG	0.604	9.4
Toluene	AVRG	0.974	18.0
Trans 1,3-Dichloropropene	AVRG	0.508	7.2
2-Hexanone	AVRG	0.409	13.6

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
1,1,2-Trichloroethane	AVRG	0.303	7.0
1,3-Dichloropropane	AVRG	0.704	4.0
Tetrachloroethene	AVRG	0.556	7.0
Chlorodibromomethane	AVRG	0.473	7.2
1,2-Dibromoethane	AVRG	0.325	4.7
Chlorobenzene	AVRG	1.173	14.4
Ethyl Benzene	AVRG	1.983	16.3
1,1,1,2-Tetrachloroethane	AVRG	0.449	7.4
m,p-xylene	AVRG	0.725	10.2
o-Xylene	AVRG	0.753	12.3
Styrene	AVRG	1.165	10.5
Bromoform	AVRG	0.541	7.5
1,1,2,2-Tetrachloroethane	AVRG	0.972	18.2
1,2,3-Trichloropropane	AVRG	0.193	17.0
Trans-1,4-Dichloro 2-Butene	AVRG	0.299	13.1
N-Propyl Benzene	AVRG	4.345	13.4
Bromobenzene	AVRG	0.938	7.7
Isopropyl Benzene	AVRG	3.366	19.2
2-Chloro Toluene	AVRG	2.855	15.4
4-Chloro Toluene	AVRG	2.736	16.4
T-Butyl Benzene	AVRG	2.337	19.1
1,3,5-Trimethyl Benzene	AVRG	2.732	15.0
1,2,4-Trimethylbenzene	AVRG	2.690	15.2
S-Butyl Benzene	AVRG	3.845	10.6
4-Isopropyl Toluene	AVRG	2.638	15.6
1,3-Dichlorobenzene	AVRG	1.603	13.2
1,4-Dichlorobenzene	AVRG	1.604	12.2
N-Butyl Benzene	AVRG	2.849	16.1
1,2-Dichlorobenzene	AVRG	1.523	11.8
1,2-Dibromo 3-Chloropropane	AVRG	0.168	17.6
1,2,4-Trichlorobenzene	AVRG	0.927	13.0
Hexachloro 1,3-Butadiene	AVRG	0.624	12.0
Naphthalene	AVRG	1.682	14.5
1,2,3-Trichlorobenzene	AVRG	0.886	18.2
Dichlorodifluoromethane	AVRG	0.648	4.8
Methyl tert-Butyl Ether	AVRG	1.456	11.2

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Calibration Date: 07/23/10

COMPOUND	CURVE TYPE	AVE RF	%RSD OR R^2
d4-1,2-Dichloroethane	AVRG	0.652	7.8
d8-Toluene	AVRG	1.099	3.4
4-Bromofluorobenzene	AVRG	0.585	8.5
d4-1,2-Dichlorobenzene	AVRG	0.909	2.4
Dibromofluoromethane	AVRG	0.596	6.0

<- Indicates value outside QC limits:
(%RSD < 20% or R^2 > 0.990)

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Cont. Calib. Date: 08/02/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1723

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Chloromethane	1.744	1.313	0.100	AVRG	-24.7	<-
Vinyl Chloride	1.379	1.199	0.010	AVRG	-13.0	
Bromomethane	0.749	0.875	0.010	AVRG	16.8	
Chloroethane	0.901	0.840	0.010	AVRG	-6.8	
Trichlorofluoromethane	1.333	1.303	0.010	AVRG	-2.2	
Acrolein	0.166	0.137	0.010	AVRG	-17.5	
112Trichloro122Trifluoroetha	1.044	0.902	0.010	AVRG	-13.6	
Acetone	0.280	0.244	0.010	AVRG	-12.8	
1,1-Dichloroethene	0.947	0.833	0.010	AVRG	-12.0	
Bromoethane	0.701	0.627	0.010	AVRG	-10.6	
Iodomethane	1.120	1.187	0.010	AVRG	6.0	
Methylene Chloride	1.066	0.810	0.010	AVRG	-24.0	<-
Acrylonitrile	0.247	0.224	0.010	AVRG	-9.3	
Carbon Disulfide	2.938	2.768	0.010	AVRG	-5.8	
Trans-1,2-Dichloroethene	0.807	0.692	0.010	AVRG	-14.2	
Vinyl Acetate	1.414	1.353	0.010	AVRG	-4.3	
1,1-Dichloroethane	1.485	1.358	0.100	AVRG	-8.6	
2-Butanone	0.315	0.281	0.010	AVRG	-10.8	
2,2-Dichloropropane	0.908	0.860	0.010	AVRG	-5.3	
Cis-1,2-Dichloroethene	0.712	0.632	0.010	AVRG	-11.2	
Chloroform	1.206	1.086	0.010	AVRG	-10.0	
Bromochloromethane	0.338	0.300	0.010	AVRG	-11.2	
1,1,1-Trichloroethane	0.938	0.845	0.010	AVRG	-9.9	
1,1-Dichloropropene	0.679	0.631	0.010	AVRG	-7.1	
Carbon Tetrachloride	0.590	0.547	0.010	AVRG	-7.3	
1,2-Dichloroethane	0.596	0.572	0.010	AVRG	-4.0	
Benzene	1.642	1.543	0.010	AVRG	-6.0	
Trichloroethene	0.481	0.435	0.010	AVRG	-9.6	
1,2-Dichloropropane	0.517	0.462	0.010	AVRG	-10.6	
Bromodichloromethane	0.553	0.525	0.010	AVRG	-5.1	
Dibromomethane	0.257	0.235	0.010	AVRG	-8.6	
2-Chloroethyl Vinyl Ether	0.181	0.187	0.010	AVRG	3.3	
4-Methyl-2-Pentanone	0.132	0.120	0.010	AVRG	-9.1	
Cis 1,3-dichloropropene	0.604	0.606	0.010	AVRG	0.3	
Toluene	0.974	0.871	0.010	AVRG	-10.6	
Trans 1,3-Dichloropropene	0.508	0.500	0.010	AVRG	-1.6	
2-Hexanone	0.409	0.342	0.010	AVRG	-16.4	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Cont. Calib. Date: 08/02/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1723

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
1,1,2-Trichloroethane	0.303	0.280	0.010	AVRG	-7.6
1,3-Dichloropropane	0.704	0.633	0.010	AVRG	-10.1
Tetrachloroethene	0.556	0.483	0.010	AVRG	-13.1
Chlorodibromomethane	0.473	0.436	0.010	AVRG	-7.8
1,2-Dibromoethane	0.325	0.298	0.010	AVRG	-8.3
Chlorobenzene	1.173	1.049	0.300	AVRG	-10.6
Ethyl Benzene	1.983	1.932	0.010	AVRG	-2.6
1,1,1,2-Tetrachloroethane	0.449	0.377	0.010	AVRG	-16.0
m,p-xylene	0.725	0.736	0.010	AVRG	1.5
o-Xylene	0.753	0.712	0.010	AVRG	-5.4
Styrene	1.165	1.174	0.010	AVRG	0.8
Bromoform	0.541	0.506	0.100	AVRG	-6.5
1,1,2,2-Tetrachloroethane	0.972	0.832	0.300	AVRG	-14.4
1,2,3-Trichloropropane	0.192	0.177	0.010	AVRG	-7.8
Trans-1,4-Dichloro 2-Butene	0.299	0.300	0.010	AVRG	0.3
N-Propyl Benzene	4.345	4.361	0.010	AVRG	0.4
Bromobenzene	0.938	0.867	0.010	AVRG	-7.6
Isopropyl Benzene	3.366	3.550	0.010	AVRG	5.5
2-Chloro Toluene	2.855	2.759	0.010	AVRG	-3.4
4-Chloro Toluene	2.737	2.788	0.010	AVRG	1.9
T-Butyl Benzene	2.337	2.555	0.010	AVRG	9.3
1,3,5-Trimethyl Benzene	2.732	2.958	0.010	AVRG	8.3
1,2,4-Trimethylbenzene	2.690	2.924	0.010	AVRG	8.7
S-Butyl Benzene	3.845	3.912	0.010	AVRG	1.7
4-Isopropyl Toluene	2.638	2.961	0.010	AVRG	12.2
1,3-Dichlorobenzene	1.603	1.610	0.010	AVRG	0.4
1,4-Dichlorobenzene	1.604	1.569	0.010	AVRG	-2.2
N-Butyl Benzene	2.849	3.133	0.010	AVRG	10.0
1,2-Dichlorobenzene	1.523	1.447	0.010	AVRG	-5.0
1,2-Dibromo 3-Chloropropane	0.168	0.150	0.010	AVRG	-10.7
1,2,4-Trichlorobenzene	0.927	0.866	0.010	AVRG	-6.6
Hexachloro 1,3-Butadiene	0.624	0.606	0.010	AVRG	-2.9
Naphthalene	1.682	1.425	0.010	AVRG	-15.3
1,2,3-Trichlorobenzene	0.886	0.750	0.010	AVRG	-15.3
Dichlorodifluoromethane	0.648	0.621	0.010	AVRG	-4.2
Methyl tert-Butyl Ether	1.456	1.339	0.010	AVRG	-8.0

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Cont. Calib. Date: 08/02/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1723

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
d4-1,2-Dichloroethane	0.652	0.619	0.010	AVRG	-5.1
d8-Toluene	1.099	1.183	0.010	AVRG	7.6
4-Bromofluorobenzene	0.585	0.576	0.010	AVRG	-1.5
d4-1,2-Dichlorobenzene	0.909	0.903	0.010	AVRG	-0.7
Dibromofluoromethane	0.596	0.562	0.010	AVRG	-5.7

<- Exceeds QC limit of 20% D
* RF less than minimum RF

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Cont. Calib. Date: 08/03/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1732

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
Chloromethane	1.744	1.486	0.100	AVRG	-14.8	
Vinyl Chloride	1.379	1.348	0.010	AVRG	-2.2	
Bromomethane	0.749	1.014	0.010	AVRG	35.4	<-
Chloroethane	0.901	0.912	0.010	AVRG	1.2	
Trichlorofluoromethane	1.333	1.413	0.010	AVRG	6.0	
Acrolein	0.166	0.144	0.010	AVRG	-13.2	
112Trichloro122Trifluoroetha	1.044	1.031	0.010	AVRG	-1.2	
Acetone	0.280	0.241	0.010	AVRG	-13.9	
1,1-Dichloroethene	0.947	0.907	0.010	AVRG	-4.2	
Bromoethane	0.701	0.688	0.010	AVRG	-1.8	
Iodomethane	1.120	1.305	0.010	AVRG	16.5	
Methylene Chloride	1.066	0.888	0.010	AVRG	-16.7	
Acrylonitrile	0.247	0.235	0.010	AVRG	-4.8	
Carbon Disulfide	2.938	3.126	0.010	AVRG	6.4	
Trans-1,2-Dichloroethene	0.807	0.769	0.010	AVRG	-4.7	
Vinyl Acetate	1.414	1.405	0.010	AVRG	-0.6	
1,1-Dichloroethane	1.485	1.486	0.100	AVRG	0.1	
2-Butanone	0.315	0.288	0.010	AVRG	-8.6	
2,2-Dichloropropane	0.908	0.910	0.010	AVRG	0.2	
Cis-1,2-Dichloroethene	0.712	0.694	0.010	AVRG	-2.5	
Chloroform	1.206	1.191	0.010	AVRG	-1.2	
Bromochloromethane	0.338	0.329	0.010	AVRG	-2.7	
1,1,1-Trichloroethane	0.938	0.918	0.010	AVRG	-2.1	
1,1-Dichloropropene	0.679	0.688	0.010	AVRG	1.3	
Carbon Tetrachloride	0.590	0.596	0.010	AVRG	1.0	
1,2-Dichloroethane	0.596	0.613	0.010	AVRG	2.8	
Benzene	1.642	1.702	0.010	AVRG	3.6	
Trichloroethene	0.481	0.489	0.010	AVRG	1.7	
1,2-Dichloropropane	0.517	0.508	0.010	AVRG	-1.7	
Bromodichloromethane	0.553	0.569	0.010	AVRG	2.9	
Dibromomethane	0.257	0.256	0.010	AVRG	-0.4	
2-Chloroethyl Vinyl Ether	0.181	0.198	0.010	AVRG	9.4	
4-Methyl-2-Pentanone	0.132	0.123	0.010	AVRG	-6.8	
Cis 1,3-dichloropropene	0.604	0.653	0.010	AVRG	8.1	
Toluene	0.974	0.965	0.010	AVRG	-0.9	
Trans 1,3-Dichloropropene	0.508	0.535	0.010	AVRG	5.3	
2-Hexanone	0.409	0.349	0.010	AVRG	-14.7	

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Cont. Calib. Date: 08/03/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1732

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift	
1,1,2-Trichloroethane	0.303	0.305	0.010	AVRG	0.7	
1,3-Dichloropropane	0.704	0.674	0.010	AVRG	-4.3	
Tetrachloroethene	0.556	0.544	0.010	AVRG	-2.2	
Chlorodibromomethane	0.473	0.461	0.010	AVRG	-2.5	
1,2-Dibromoethane	0.325	0.321	0.010	AVRG	-1.2	
Chlorobenzene	1.173	1.175	0.300	AVRG	0.2	
Ethyl Benzene	1.983	2.183	0.010	AVRG	10.1	
1,1,1,2-Tetrachloroethane	0.449	0.403	0.010	AVRG	-10.2	
m,p-xylene	0.725	0.831	0.010	AVRG	14.6	
o-Xylene	0.753	0.806	0.010	AVRG	7.0	
Styrene	1.165	1.345	0.010	AVRG	15.4	
Bromoform	0.541	0.506	0.100	AVRG	-6.5	
1,1,2,2-Tetrachloroethane	0.972	0.863	0.300	AVRG	-11.2	
1,2,3-Trichloropropane	0.192	0.176	0.010	AVRG	-8.3	
Trans-1,4-Dichloro 2-Butene	0.299	0.311	0.010	AVRG	4.0	
N-Propyl Benzene	4.345	4.855	0.010	AVRG	11.7	
Bromobenzene	0.938	0.952	0.010	AVRG	1.5	
Isopropyl Benzene	3.366	3.879	0.010	AVRG	15.2	
2-Chloro Toluene	2.855	3.025	0.010	AVRG	6.0	
4-Chloro Toluene	2.737	3.157	0.010	AVRG	15.3	
T-Butyl Benzene	2.337	2.796	0.010	AVRG	19.6	
1,3,5-Trimethyl Benzene	2.732	3.254	0.010	AVRG	19.1	
1,2,4-Trimethylbenzene	2.690	3.250	0.010	AVRG	20.8	<-
S-Butyl Benzene	3.845	4.399	0.010	AVRG	14.4	
4-Isopropyl Toluene	2.638	3.274	0.010	AVRG	24.1	<-
1,3-Dichlorobenzene	1.603	1.802	0.010	AVRG	12.4	
1,4-Dichlorobenzene	1.604	1.769	0.010	AVRG	10.3	
N-Butyl Benzene	2.849	3.564	0.010	AVRG	25.1	<-
1,2-Dichlorobenzene	1.523	1.612	0.010	AVRG	5.8	
1,2-Dibromo 3-Chloropropane	0.168	0.145	0.010	AVRG	-13.7	
1,2,4-Trichlorobenzene	0.927	0.954	0.010	AVRG	2.9	
Hexachloro 1,3-Butadiene	0.624	0.664	0.010	AVRG	6.4	
Naphthalene	1.682	1.420	0.010	AVRG	-15.6	
1,2,3-Trichlorobenzene	0.886	0.826	0.010	AVRG	-6.8	
Dichlorodifluoromethane	0.648	0.681	0.010	AVRG	5.1	
Methyl tert-Butyl Ether	1.456	1.326	0.010	AVRG	-8.9	

<- Exceeds QC limit of 20% D
* RF less than minimum RF

FORM VII VOA

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: FINN5 Cont. Calib. Date: 08/03/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1732

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
d4-1,2-Dichloroethane	0.652	0.603	0.010	AVRG	-7.5
d8-Toluene	1.099	1.178	0.010	AVRG	7.2
4-Bromofluorobenzene	0.585	0.579	0.010	AVRG	-1.0
d4-1,2-Dichlorobenzene	0.909	0.885	0.010	AVRG	-2.6
Dibromofluoromethane	0.596	0.554	0.010	AVRG	-7.0

<- Exceeds QC limit of 20% D
* RF less than minimum RF

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 0500723 Ical Date: 07/23/10

Instrument ID: FINN5 Project Run Date: 08/02/10

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	131115	6.62	191559	7.63	161199	10.78
	UPPER LIMIT	262230	7.12	383118	8.13	322398	11.28
	LOWER LIMIT	65558	6.12	95780	7.13	80600	10.28
	Sample ID						
01	LCS0802	89180	6.62	129391	7.64	106762	10.78
02	LCS0802	97066	6.63	140229	7.65	118689	10.79
03	MB0802	91877	6.63	128423	7.65	108723	10.79
04	PSB12-0-0.5-	96287	6.63	141895	7.64	121920	10.79
05	PSB12-1.5-2.	84498	6.62	125463	7.64	104826	10.78
06	PSB12-2-4-07	84168	6.61	120928	7.63	92903	10.77
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 0500723 Ical Date: 07/23/10

Instrument ID: FINN5 Project Run Date: 08/02/10

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	88279	13.47				
	UPPER LIMIT	176558	13.97				
	LOWER LIMIT	44140	12.97				
	Sample ID						
01	LCS0802	58659	13.47				
02	LCS0802	64347	13.48				
03	MB0802	53818	13.48				
04	PSB12-0-0.5-	58871	13.47				
05	PSB12-1.5-2.	43188*	13.47				
06	PSB12-2-4-07	36001*	13.46				
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 0500723 Ical Date: 07/23/10

Instrument ID: FINN5 Project Run Date: 08/03/10

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CLB) AREA #	RT #
	ICAL MIDPT	131115	6.62	191559	7.63	161199	10.78
	UPPER LIMIT	262230	7.12	383118	8.13	322398	11.28
	LOWER LIMIT	65558	6.12	95780	7.13	80600	10.28
	Sample ID						
01	LCS0803	104522	6.61	144956	7.62	122538	10.77
02	LCS0803	102338	6.63	150681	7.65	128428	10.79
03	MB0803	99355	6.61	143410	7.63	123593	10.77
04	PSB12-8-10-0	104577	6.62	154963	7.63	129225	10.78
05	PSB12-8-10-0	104607	6.62	157265	7.63	135951	10.78
06	PSB12-14-17-	101147	6.61	155868	7.63	140121	10.77
07	PSB12-4-6-07	102851	6.61	158461	7.62	135053	10.77
08	PSB12-TB	97270	6.62	150952	7.63	133384	10.78
09	PSB12-14-17-	121614	6.62	185937	7.64	157720	10.78
10	PSB12-14-17-	121485	6.61	182664	7.63	155101	10.77
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CLB) = d5-Chlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 0500723 Ical Date: 07/23/10

Instrument ID: FINN5 Project Run Date: 08/03/10

		IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	88279	13.47				
	UPPER LIMIT	176558	13.97				
	LOWER LIMIT	44140	12.97				
	Sample ID						
01	LCS0803	66534	13.46				
02	LCS0803	70841	13.48				
03	MB0803	59605	13.46				
04	PSB12-8-10-0	58507	13.46				
05	PSB12-8-10-0	61970	13.47				
06	PSB12-14-17-	70324	13.46				
07	PSB12-4-6-07	64952	13.45				
08	PSB12-TB	64254	13.46				
09	PSB12-14-17-	85323	13.47				
10	PSB12-14-17-	79938	13.46				
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (DCB) = d4-1,4-Dichlorobenzene

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Ical midpoint
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Ical midpoint

* Values outside of QC limits.

Semivolatile PAH Analysis
Report and Summary QC Forms

ARI Job ID: RG51

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS
Page 1 of 1

Sample ID: PSB12-0-0.5-072810
SAMPLE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 13:52
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 9.1%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	19	< 19 U
218-01-9	**Chrysene**	**19**	**17 J**
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
TOTBFA	Total Benzofluoranthenes	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery	
d14-p-Terphenyl	84.4%
2-Fluorobiphenyl	81.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: PSB12-1.5-2.0-072810
SAMPLE

Lab Sample ID: RG51B
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 14:25
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.4 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 5.9%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	20	< 20 U
218-01-9	Chrysene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
TOTBFA	Total Benzofluoranthenes	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	84.4%
2-Fluorobiphenyl	70.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS
Page 1 of 1

Sample ID: PSB12-2-4-072810
SAMPLE

Lab Sample ID: RG51C
LIMS ID: 10-18185
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 14:57
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.2 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 6.7%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	20	< 20 U
218-01-9	Chrysene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
TOTBFA	Total Benzofluoranthenes	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	71.6%
2-Fluorobiphenyl	66.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: PSB12-8-10-072810-D
SAMPLE

Lab Sample ID: RG51E
LIMS ID: 10-18187
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 15:30
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	19	< 19 U
218-01-9	Chrysene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
TOTBFA	Total Benzofluoranthenes	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery	
d14-p-Terphenyl	57.6%
2-Fluorobiphenyl	57.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: PSB12-14-17-072810
SAMPLE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 16:03
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 26.1 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	19	< 19 U
218-01-9	Chrysene	19	< 19 U
50-32-8	Benzo(a)pyrene	19	< 19 U
193-39-5	Indeno(1,2,3-cd)pyrene	19	< 19 U
53-70-3	Dibenz(a,h)anthracene	19	< 19 U
TOTBFA	Total Benzofluoranthenes	19	< 19 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	79.6%
2-Fluorobiphenyl	69.2%

ANALYTICAL RESOURCES INCORPORATED

SW8270 PNA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA

Client ID	TER	FBP	TOT OUT
PSB12-0-0.5-072810	84.4%	81.6%	0
PSB12-1.5-2.0-072810	84.4%	70.0%	0
PSB12-2-4-072810	71.6%	66.8%	0
PSB12-8-10-072810-D	57.6%	57.6%	0
MB-081010	74.4%	54.4%	0
LCS-081010	92.8%	64.8%	0
PSB12-14-17-072810	79.6%	69.2%	0
PSB12-14-17-072810 MS	80.0%	73.6%	0
PSB12-14-17-072810 MSD	77.2%	66.8%	0

	LCS/MB LIMITS	QC LIMITS
(TER) = d14-p-Terphenyl	(47-112)	(35-112)
(FBP) = 2-Fluorobiphenyl	(40-100)	(34-100)

Prep Method: SW3550C
Log Number Range: 10-18183 to 10-18188

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: PSB12-14-17-072810
MS/MSD

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted MS/MSD: 08/10/10

Date Analyzed MS: 08/12/10 16:36
MSD: 08/12/10 17:08
Instrument/Analyst MS: NT6/JZ
MSD: NT6/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes

Sample Amount MS: 25.8 g-dry-wt
MSD: 25.8 g-dry-wt
Final Extract Volume MS: 0.5 mL
MSD: 0.5 mL
Dilution Factor MS: 1.00
MSD: 1.00
Alumina Cleanup: No

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Benzo(a)anthracene	< 19.2	378	484	78.1%	348	484	71.9%	8.3%
Chrysene	< 19.2	373	484	77.1%	349	484	72.1%	6.6%
Benzo(a)pyrene	< 19.2	313	484	64.7%	297	484	61.4%	5.2%
Indeno(1,2,3-cd)pyrene	< 19.2	293	484	60.5%	284	484	58.7%	3.1%
Dibenz(a,h)anthracene	< 19.2	305	484	63.0%	295	484	61.0%	3.3%
Total Benzofluoranthenes	< 19.2	688	969	71.0%	659	969	68.0%	4.3%

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS
Page 1 of 1

Sample ID: PSB12-14-17-072810
MATRIX SPIKE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 16:36
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	19	---
218-01-9	Chrysene	19	---
50-32-8	Benzo(a)pyrene	19	---
193-39-5	Indeno(1,2,3-cd)pyrene	19	---
53-70-3	Dibenz(a,h)anthracene	19	---
TOTBFA	Total Benzofluoranthenes	19	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	80.0%
2-Fluorobiphenyl	73.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: PSB12-14-17-072810
MATRIX SPIKE DUPLICATE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 17:08
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.8 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	19	---
218-01-9	Chrysene	19	---
50-32-8	Benzo(a)pyrene	19	---
193-39-5	Indeno(1,2,3-cd)pyrene	19	---
53-70-3	Dibenz(a,h)anthracene	19	---
TOTBFA	Total Benzofluoranthenes	19	---

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	77.2%
2-Fluorobiphenyl	66.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: LCS-081010
LAB CONTROL

Lab Sample ID: LCS-081010
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: 07/28/10

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 12:47
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes

Sample Amount: 25.0 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: No

Analyte	Lab Control	Spike Added	Recovery
Benzo(a)anthracene	390	500	78.0%
Chrysene	383	500	76.6%
Benzo(a)pyrene	337	500	67.4%
Indeno(1,2,3-cd)pyrene	352	500	70.4%
Dibenz(a,h)anthracene	356	500	71.2%
Total Benzofluoranthenes	752	1000	75.2%

Semivolatile Surrogate Recovery	
d14-p-Terphenyl	92.8%
2-Fluorobiphenyl	64.8%

Results reported in µg/kg

4B

SEMIVOLATILE METHOD BLANK SUMMARY

BLANK NO.

RG51MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Lab File ID: 08121002 Date Extracted: 08/10/10

Instrument ID: NT6 Date Analyzed: 08/12/10

Matrix: SOLID Time Analyzed: 1214

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	RG51LCSS1	RG51LCSS1	08121003	08/12/10
02	PSB12-0-0.5-0728	RG51A	08121005	08/12/10
03	PSB12-1.5-2.0-07	RG51B	08121006	08/12/10
04	PSB12-2-4-072810	RG51C	08121007	08/12/10
05	PSB12-8-10-07281	RG51E	08121008	08/12/10
06	PSB12-14-17-0728	RG51F	08121009	08/12/10
07	PSB12-14-17-072	RG51FMS	08121010	08/12/10
08	PSB12-14-17-072	RG51FMSD	08121011	08/12/10
09	PSB14-0-.5-07281	RG54A	08121012	08/12/10
10	PSB14-1.5-2.0-07	RG54B	08121013	08/12/10
11	PSB14-2-4-072810	RG54C	08121014	08/12/10
12	PSB14-7-9-072810	RG54E	08121015	08/12/10
13	PSB14-12-14-0728	RG54F	08121016	08/12/10
14	PSB17-1.5-2-0728	RG54I	08121018	08/12/10
15	PSB17-2-4-072810	RG54J	08121019	08/12/10
16	PSB17-10-13-0728	RG54L	08121020	08/12/10
17	PSB13-0-0.5-0729	RG60A	08121021	08/12/10
18	PSB13-1.5-2-0729	RG60B	08121022	08/12/10
19	PSB13-4-6-072910	RG60D	08131002	08/13/10
20	PSB13-11-13-0729	RG60E	08131003	08/13/10
21	PSB13-14.5-16.5-	RG60F	08131004	08/13/10
22	PSB17-0-0.5-0728	RG54H	08131006	08/13/10
23	PSB13-2-4-072910	RG60C	08131007	08/13/10
24				
25				
26				
27				
28				
29				
30				

FORM IV SV

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: MB-081010
METHOD BLANK

Lab Sample ID: MB-081010
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/16/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted: 08/10/10
Date Analyzed: 08/12/10 12:14
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: Yes

Sample Amount: 25.0 g
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	20	< 20 U
218-01-9	Chrysene	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
TOTBFA	Total Benzofluoranthenes	20	< 20 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	74.4%
2-Fluorobiphenyl	54.4%

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

Instrument ID: NT6 Project: LORA LAKES RI

DFTPP Injection Date: 07/23/10 DFTPP Injection Time: 1501

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	39.4
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	10.0 - 80.0% of mass 198	50.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 60.0% of mass 198	26.8
365	Greater than 1.0% of mass 198	3.26
441	0.0 - 24.0% of mass 442	10.5 (15.1)2
442	50.0 - 200.0% of mass 198	69.5
443	15.0 - 24.0% of mass 442	14.4 (20.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	IC250723	IC250723	07231001	07/23/10	1501
02	IC010723	IC010723	07231002	07/23/10	1538
03	IC050723	IC050723	07231003	07/23/10	1616
04	IC100723	IC100723	07231004	07/23/10	1652
05	IC400723	IC400723	07231005	07/23/10	1729
06	IC600723	IC600723	07231006	07/23/10	1801
07	IC800723	IC800723	07231007	07/23/10	1838
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

Instrument ID: NT6 Project: LORA LAKES RI

DFTPP Injection Date: 08/12/10 DFTPP Injection Time: 1142

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	37.3
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	10.0 - 80.0% of mass 198	47.8
197	Less than 2.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.3
275	10.0 - 60.0% of mass 198	27.4
365	Greater than 1.0% of mass 198	3.34
441	0.0 - 24.0% of mass 442	11.8 (15.2)2
442	50.0 - 200.0% of mass 198	77.6
443	15.0 - 24.0% of mass 442	15.3 (19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0812	CC0812	08121001	08/12/10	1142
02	RG51MBS1	RG51MBS1	08121002	08/12/10	1214
03	RG51LCSS1	RG51LCSS1	08121003	08/12/10	1247
04	PSB12-0-0.5-0728	RG51A	08121005	08/12/10	1352
05	PSB12-1.5-2.0-07	RG51B	08121006	08/12/10	1425
06	PSB12-2-4-072810	RG51C	08121007	08/12/10	1457
07	PSB12-8-10-07281	RG51E	08121008	08/12/10	1530
08	PSB12-14-17-0728	RG51F	08121009	08/12/10	1603
09	PSB12-14-17-072	RG51FMS	08121010	08/12/10	1636
10	PSB12-14-17-072	RG51FMSD	08121011	08/12/10	1708
11	PSB14-0-.5-07281	RG54A	08121012	08/12/10	1741
12	PSB14-1.5-2.0-07	RG54B	08121013	08/12/10	1814
13	PSB14-2-4-072810	RG54C	08121014	08/12/10	1846
14	PSB14-7-9-072810	RG54E	08121015	08/12/10	1919
15	PSB14-12-14-0728	RG54F	08121016	08/12/10	1951
16	PSB17-1.5-2-0728	RG54I	08121018	08/12/10	2056
17	PSB17-2-4-072810	RG54J	08121019	08/12/10	2129
18	PSB17-10-13-0728	RG54L	08121020	08/12/10	2201
19	PSB13-0-0.5-0729	RG60A	08121021	08/12/10	2233
20	PSB13-1.5-2-0729	RG60B	08121022	08/12/10	2306
21					
22					

FORM V SV

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

Instrument ID: NT6 Project: LORA LAKES RI

DFTPP Injection Date: 08/13/10 DFTPP Injection Time: 1124

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	37.6
70	Less than 2.0% of mass 69	0.3 (0.9)1
127	10.0 - 80.0% of mass 198	49.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	26.9
365	Greater than 1.0% of mass 198	2.89
441	0.0 - 24.0% of mass 442	11.2 (14.5)2
442	50.0 - 200.0% of mass 198	77.1
443	15.0 - 24.0% of mass 442	15.6 (20.2)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CC0813	CC0813	08131001	08/13/10	1124
02	PSB13-4-6-072910	RG60D	08131002	08/13/10	1157
03	PSB13-11-13-0729	RG60E	08131003	08/13/10	1230
04	PSB13-14.5-16.5-	RG60F	08131004	08/13/10	1303
05	PSB17-0-0.5-0728	RG54H	08131006	08/13/10	1409
06	PSB13-2-4-072910	RG60C	08131007	08/13/10	1442
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

6C

SEMIVOLATILE 8270-D INITIAL CALIBRATION DATA

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: NT6 Calibration Date: 07/23/10

LAB FILE ID: RRF1 =07231002 RRF5 =07231003 RRF10 =07231004
RRF25 =07231001 RRF40 =07231005 RRF60 =07231006
RRF80 =07231007

COMPOUND	RRF 1	RRF 5	RRF 10	RRF 25	RRF 40	RRF 60	RRF 80	___ RRF	%RSD /R^2
Naphthalene	1.344	1.200	1.234	1.150	1.086	0.978	0.921	1.130	13.0
2-Methylnaphthalene	0.728	0.638	0.666	0.617	0.598	0.559	0.536	0.620	10.5
Acenaphthylene	2.388	2.206	2.262	2.117	1.979	1.779	1.677	2.058	12.6
Acenaphthene	1.449	1.311	1.358	1.306	1.260	1.174	1.140	1.285	8.3
Dibenzofuran	1.971	1.742	1.824	1.716	1.655	1.552	1.492	1.707	9.5
Fluorene	1.725	1.509	1.552	1.465	1.398	1.296	1.238	1.455	11.3
Phenanthrene	1.456	1.294	1.343	1.256	1.196	1.102	1.049	1.242	11.3
Anthracene	1.476	1.349	1.393	1.324	1.242	1.132	1.067	1.283	11.3
Fluoranthene	1.469	1.440	1.474	1.407	1.319	1.196	1.117	1.346	10.5
Pyrene	1.491	1.147	1.199	1.298	1.134	1.109	1.052	1.204	12.3
Benzo(a)anthracene	1.391	1.067	1.108	1.258	1.104	1.098	1.067	1.156	10.6
Chrysene	1.340	1.001	1.042	1.160	1.031	1.015	0.986	1.082	11.7
Benzo(a)pyrene	1.398	1.287	1.363	1.282	1.246	1.150	1.101	1.261	8.5
Indeno(1,2,3-cd)pyrene	1.859	1.700	1.761	1.708	1.672	1.582	1.529	1.687	6.5
Dibenzo(a,h)anthracene	1.371	1.330	1.381	1.333	1.299	1.220	1.142	1.296	6.7
Benzo(g,h,i)perylene	1.721	1.540	1.579	1.535	1.502	1.415	1.360	1.522	7.7
1-methylnaphthalene	0.741	0.665	0.679	0.642	0.620	0.581	0.557	0.641	9.7
Total Benzofluoranthenes	1.545	1.350	1.369	1.319	1.237	1.131	1.063	1.288	12.5
Terphenyl-d14	0.848	0.620	0.666	0.760	0.675	0.682		0.708	11.6
2-Fluorobiphenyl	1.655	1.418	1.444	1.370	1.295	1.218		1.400	10.7

<- Outside QC limits: %RSD <20% or R^2 > 0.990

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: NT6 Cont. Calib. Date: 08/12/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1142

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	1.130	1.144	0.700	AVRG	1.2
2-Methylnaphthalene	0.620	0.638	0.400	AVRG	2.9
Acenaphthylene	2.058	2.069	0.900	AVRG	0.5
Acenaphthene	1.285	1.266	0.900	AVRG	-1.5
Dibenzofuran	1.707	1.712	0.800	AVRG	0.3
Fluorene	1.455	1.508	0.900	AVRG	3.6
Phenanthrene	1.242	1.275	0.700	AVRG	2.6
Anthracene	1.283	1.321	0.700	AVRG	3.0
Fluoranthene	1.346	1.462	0.600	AVRG	8.6
Pyrene	1.204	1.244	0.600	AVRG	3.3
Benzo(a)anthracene	1.156	1.243	0.800	AVRG	7.5
Chrysene	1.082	1.106	0.700	AVRG	2.2
Benzo(a)pyrene	1.261	1.301	0.700	AVRG	3.2
Indeno(1,2,3-cd)pyrene	1.687	1.630	0.500	AVRG	-3.4
Dibenzo(a,h)anthracene	1.296	1.283	0.400	AVRG	-1.0
Benzo(g,h,i)perylene	1.522	1.456	0.500	AVRG	-4.3
1-methylnaphthalene	0.641	0.662	0.010	AVRG	3.3
Total Benzofluoranthenes	1.288	1.322	0.010	AVRG	2.6
Terphenyl-d14	0.708	0.765	0.010	AVRG	8.0
2-Fluorobiphenyl	1.400	1.344	0.010	AVRG	-4.0

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

7B

SEMIVOLATILE 8270-D CONTINUING CALIBRATION CHECK

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Instrument ID: NT6 Cont. Calib. Date: 08/13/10

Init. Calib. Date: 07/23/10 Cont. Calib. Time: 1124

COMPOUND	CalAmt or ARF	CC Amt or RF	MIN RRF	CURVE TYPE	%D or Drift
Naphthalene	1.130	1.148	0.700	AVRG	1.6
2-Methylnaphthalene	0.620	0.630	0.400	AVRG	1.6
Acenaphthylene	2.058	2.075	0.900	AVRG	0.8
Acenaphthene	1.285	1.260	0.900	AVRG	-1.9
Dibenzofuran	1.707	1.727	0.800	AVRG	1.2
Fluorene	1.455	1.471	0.900	AVRG	1.1
Phenanthrene	1.242	1.268	0.700	AVRG	2.1
Anthracene	1.283	1.336	0.700	AVRG	4.1
Fluoranthene	1.346	1.474	0.600	AVRG	9.5
Pyrene	1.204	1.232	0.600	AVRG	2.3
Benzo(a)anthracene	1.156	1.243	0.800	AVRG	7.5
Chrysene	1.082	1.132	0.700	AVRG	4.6
Benzo(a)pyrene	1.261	1.264	0.700	AVRG	0.2
Indeno(1,2,3-cd)pyrene	1.687	1.659	0.500	AVRG	-1.6
Dibenzo(a,h)anthracene	1.296	1.311	0.400	AVRG	1.2
Benzo(g,h,i)perylene	1.522	1.479	0.500	AVRG	-2.8
1-methylnaphthalene	0.641	0.656	0.010	AVRG	2.3
Total Benzofluoranthenes	1.288	1.281	0.010	AVRG	-0.5
Terphenyl-d14	0.708	0.758	0.010	AVRG	7.1
2-Fluorobiphenyl	1.400	1.351	0.010	AVRG	-3.5

<- Exceeds QC limit of 20% D

* RF less than minimum RF

FORM VII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 07231001 Ical Date: 07/23/10

Instrument ID: NT6 Cont. Cal Date: 08/12/10

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	182786	7.59	584137	9.64	320442	12.50
	UPPER LIMIT	365572		1168274		640884	
	LOWER LIMIT	91393		292068		160221	
	CCAL	170078	7.25	563656	9.33	331873	12.20
	UPPER LIMIT		7.75		9.83		12.70
	LOWER LIMIT		6.75		8.83		11.70
01	RG51MBS1			654011	9.32	386336	12.19
02	RG51LCSS1			659808	9.32	376047	12.19
03	PSB12-0-0.5-			624298	9.32	363695	12.19
04	PSB12-1.5-2.			644085	9.32	378101	12.20
05	PSB12-2-4-07			675619	9.32	402393	12.20
06	PSB12-8-10-0			690383	9.33	400767	12.20
07	PSB12-14-17-			672234	9.32	389561	12.20
08	PSB12-14-17-			647337	9.32	368766	12.20
09	PSB12-14-17-			684526	9.32	391450	12.20
10	PSB14-0-.5-0			646802	9.32	372263	12.19
11	PSB14-1.5-2.			684688	9.32	394732	12.20
12	PSB14-2-4-07			697008	9.32	405526	12.19
13	PSB14-7-9-07			688034	9.33	406917	12.20
14	PSB14-12-14-			680198	9.32	399910	12.20
15	PSB17-1.5-2-			666015	9.33	391326	12.20
16	PSB17-2-4-07			675475	9.33	399146	12.20
17	PSB17-10-13-			673627	9.32	398471	12.20
18	PSB13-0-0.5-			635836	9.32	370489	12.20
19	PSB13-1.5-2-			672506	9.33	396543	12.20
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 07231001 Ical Date: 07/23/10

Instrument ID: NT6 Cont. Cal Date: 08/12/10

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	503793		14.86		532343		19.16		517269		21.31	
	UPPER LIMIT	1007586				1064686				1034538			
	LOWER LIMIT	251896				266172				258634			
	CCAL	526027		14.57		597231		18.89		556523		21.04	
	UPPER LIMIT			15.07				19.39				21.54	
	LOWER LIMIT			14.07				18.39				20.54	
01	RG51MBS1	624497		14.56		689136		18.88		618317		21.04	
02	RG51LCSS1	616996		14.56		660878		18.89		624348		21.04	
03	PSB12-0-0.5-	582400		14.57		758225		18.89		752564		21.06	
04	PSB12-1.5-2.	606153		14.57		727151		18.89		726625		21.05	
05	PSB12-2-4-07	645964		14.57		772569		18.89		779609		21.06	
06	PSB12-8-10-0	655503		14.57		758101		18.89		745929		21.05	
07	PSB12-14-17-	623192		14.57		771041		18.89		770890		21.05	
08	PSB12-14-17-	609818		14.57		724259		18.89		744130		21.05	
09	PSB12-14-17-	646825		14.57		805012		18.89		809972		21.05	
10	PSB14-0-.5-0	604870		14.57		792141		18.89		779443		21.07	
11	PSB14-1.5-2.	650726		14.57		791148		18.89		754770		21.05	
12	PSB14-2-4-07	659514		14.57		805472		18.89		768749		21.05	
13	PSB14-7-9-07	657807		14.57		815444		18.89		808589		21.06	
14	PSB14-12-14-	646609		14.57		802236		18.89		765842		21.05	
15	PSB17-1.5-2-	638836		14.57		777046		18.89		722521		21.05	
16	PSB17-2-4-07	666150		14.57		834140		18.89		744511		21.05	
17	PSB17-10-13-	658509		14.57		817846		18.89		755989		21.05	
18	PSB13-0-0.5-	618800		14.57		763836		18.89		732220		21.05	
19	PSB13-1.5-2-	662430		14.57		834468		18.89		779307		21.06	
20													
21													
22													
23													
24													
25													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 07231001 Ical Date: 07/23/10

Instrument ID: NT6 Cont. Cal Date: 08/12/10

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	719428	20.35				
	UPPER LIMIT	1438856					
	LOWER LIMIT	359714					
	CCAL	727831	20.13				
	UPPER LIMIT		20.63				
	LOWER LIMIT		19.63				
01	RG51MBS1						
02	RG51LCSS1						
03	PSB12-0-0.5-						
04	PSB12-1.5-2.						
05	PSB12-2-4-07						
06	PSB12-8-10-0						
07	PSB12-14-17-						
08	PSB12-14-17-						
09	PSB12-14-17-						
10	PSB14-0-.5-0						
11	PSB14-1.5-2.						
12	PSB14-2-4-07						
13	PSB14-7-9-07						
14	PSB14-12-14-						
15	PSB17-1.5-2-						
16	PSB17-2-4-07						
17	PSB17-10-13-						
18	PSB13-0-0.5-						
19	PSB13-1.5-2-						
20							
21							
22							
23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 07231001 Ical Date: 07/23/10

Instrument ID: NT6 Cont. Cal Date: 08/13/10

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	ICAL MIDPT	182786	7.59	584137	9.64	320442	12.50
	UPPER LIMIT	365572		1168274		640884	
	LOWER LIMIT	91393		292068		160221	
	CCAL	166565	7.19	550174	9.25	321882	12.09
	UPPER LIMIT		7.69		9.75		12.59
	LOWER LIMIT		6.69		8.75		11.59
01	PSB13-4-6-07			646607	9.24	380788	12.09
02	PSB13-11-13-			655374	9.24	389020	12.08
03	PSB13-14.5-1			657063	9.24	382063	12.09
04	PSB17-0-0.5-			626035	9.24	374024	12.09
05	PSB13-2-4-07			667186	9.25	410669	12.09
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS1 = 1,4-Dichlorobenzene-d4
IS2 = Naphthalene-d8
IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 07231001 Ical Date: 07/23/10

Instrument ID: NT6 Cont. Cal Date: 08/13/10

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	ICAL MIDPT	503793		14.86		532343		19.16		517269		21.31	
	UPPER LIMIT	1007586				1064686				1034538			
	LOWER LIMIT	251896				266172				258634			
	CCAL	505369		14.44		591540		18.72		590209		20.85	
	UPPER LIMIT			14.94				19.22				21.35	
	LOWER LIMIT			13.94				18.22				20.35	
01	PSB13-4-6-07	616103		14.44		683741		18.71		676003		20.85	
02	PSB13-11-13-	630919		14.43		730490		18.71		755660		20.85	
03	PSB13-14.5-1	634253		14.43		767749		18.71		788938		20.86	
04	PSB17-0-0.5-	619985		14.44		848355		18.73		705991		20.89	
05	PSB13-2-4-07	703145		14.44		724927		18.76		307927		20.94	
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

IS4 = Phenanthrene-d10
IS5 = Chrysene-d12
IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-2

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No: RG51 Project: LORA LAKES RI

Ical Midpoint ID: 07231001 Ical Date: 07/23/10

Instrument ID: NT6 Cont. Cal Date: 08/13/10

		IS7 AREA #	RT #	AREA #	RT #	AREA #	RT #
	ICAL MIDPT	719428	20.35				
	UPPER LIMIT	1438856					
	LOWER LIMIT	359714					
	CCAL	731396	19.94				
	UPPER LIMIT		20.44				
	LOWER LIMIT		19.44				
01	PSB13-4-6-07						
02	PSB13-11-13-						
03	PSB13-14.5-1						
04	PSB17-0-0.5-						
05	PSB13-2-4-07						
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

IS7 = Di-n-octylphthalate-d4

AREA UPPER LIMIT = +100% of internal standard area from Ical midpoint
AREA LOWER LIMIT = - 50% of internal standard area from Ical midpoint
RT UPPER LIMIT = + 0.50 minutes of internal standard RT from Cont. Cal
RT LOWER LIMIT = - 0.50 minutes of internal standard RT from Cont. Cal

* Values outside of QC limits.

FORM VIII SV-3

PCP/Chlorophenols Analysis
Report and Summary QC Forms

ARI Job ID: RG51

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-0-0.5-072810
SAMPLE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 18:17
Instrument/Analyst: ECD1/YZ

Sample Amount: 9.21 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 9.1%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.8	< 6.8 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery	
2,4,6-Tribromophenol	88.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-1.5-2.0-072810
SAMPLE

Lab Sample ID: RG51B
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 18:37
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.1 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 5.9%

CAS Number	Analyte	RL	Result
87-86-5	**Pentachlorophenol**	**6.2**	**27**

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	54.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-2-4-072810
SAMPLE

Lab Sample ID: RG51C
LIMS ID: 10-18185
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 18:57
Instrument/Analyst: ECD1/YZ

Sample Amount: 9.59 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 6.7%

CAS Number	Analyte	RL	Result
87-86-5	**Pentachlorophenol**	**6.5**	**14**

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	70.0%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-8-10-072810
SAMPLE

Lab Sample ID: RG51D
LIMS ID: 10-18186
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 19:17
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.0 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery	
2,4,6-Tribromophenol	56.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-8-10-072810-D
SAMPLE

Lab Sample ID: RG51E
LIMS ID: 10-18187
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 19:37
Instrument/Analyst: ECD1/YZ

Sample Amount: 9.95 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.3	< 6.3 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery	
2,4,6-Tribromophenol	54.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-14-17-072810
SAMPLE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 19:57
Instrument/Analyst: ECD1/YZ

Sample Amount: 9.61 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
87-86-5	**Pentachlorophenol**	**6.5**	**61**

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	66.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-4-6-072810
SAMPLE

Lab Sample ID: RG51G
LIMS ID: 10-18189
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 20:57
Instrument/Analyst: ECD1/YZ

Sample Amount: 9.32 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 8.4%

CAS Number	Analyte	RL	Result
87-86-5	**Pentachlorophenol**	6.7	16

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	80.8%

FORM I

ANALYTICAL RESOURCES INCORPORATED

SW8041 CHLOROPHENOLICS SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA

Client ID	TBP	TOT OUT
PSB12-0-0.5-072810	88.0%	0
PSB12-1.5-2.0-072810	54.8%	0
PSB12-2-4-072810	70.0%	0
PSB12-8-10-072810	56.0%	0
PSB12-8-10-072810-D	54.8%	0
MB-080710	58.0%	0
LCS-080710	62.4%	0
PSB12-14-17-072810	66.8%	0
PSB12-14-17-072810 MS	74.2%	0
PSB12-14-17-072810 MSD	67.2%	0
PSB12-4-6-072810	80.8%	0

	LCS/MB LIMITS	QC LIMITS
(TBP) = 2,4,6-Tribromophenol	(50-115)	(10-146)

Prep Method: SW3550B
Log Number Range: 10-18183 to 10-18189

FORM-II SW8041

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-14-17-072810
MS/MSD

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted MS/MSD: 08/07/10

Sample Amount MS: 9.78 g-dry-wt
MSD: 10.3 g-dry-wt
Date Analyzed MS: 08/18/10 20:17
MSD: 08/18/10 20:37
Final Extract Volume MS: 25 mL
MSD: 25 mL
Instrument/Analyst MS: ECD1/YZ
MSD: ECD1/YZ
Dilution Factor MS: 1.00
MSD: 1.00
Percent Moisture: 4.7%

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Pentachlorophenol	61.1	112	63.9	79.7%	98.3	60.7	61.3%	13.0%

Results reported in µg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-14-17-072810
MATRIX SPIKE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 20:17
Instrument/Analyst: ECD1/YZ

Sample Amount: 9.78 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.4	---

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	74.2%

FORM I

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: PSB12-14-17-072810
MATRIX SPIKE DUP

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 20:37
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.3 g-dry-wt
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.1	---

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	67.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: LCS-080710
LAB CONTROL

Lab Sample ID: LCS-080710
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 17:57
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.0 g
Final Extract Volume: 25 mL
Dilution Factor: 1.00

Analyte	Lab Control	Spike Added	Recovery
Pentachlorophenol	47.6	62.5	76.2%

Chlorophenols Surrogate Recovery

2,4,6-Tribromophenol	62.4%

Results reported in µg/kg

FORM III

4

CHLOROPHENOL METHOD BLANK SUMMARY

SAMPLE NO.

RG51MBS1

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

Lab Sample ID: RG51MBS1 Lab File ID: 0818A005

Matrix (soil/water) SOLID Extraction:(SepF/Cont/Sonc) SW3550C

Sulfur Cleanup (Y/N) Y Date Extracted: 08/07/10

Date Analyzed (1): 08/18/10 Date Analyzed (2): 08/18/10

Time Analyzed (1): 1737 Time Analyzed (2): 1737

Instrument ID (1): ECD1 Instrument ID (2): ECD1

GC Column (1): ZB5 ID: 0.53(mm) GC Column (2): ZB35 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	RG51LCSS1	RG51LCSS1	08/18/10	08/18/10
02	PSB12-0-0.5-	RG51A	08/18/10	08/18/10
03	PSB12-1.5-2.	RG51B	08/18/10	08/18/10
04	PSB12-2-4-07	RG51C	08/18/10	08/18/10
05	PSB12-8-10-0	RG51D	08/18/10	08/18/10
06	PSB12-8-10-0	RG51E	08/18/10	08/18/10
07	PSB12-14-17-	RG51F	08/18/10	08/18/10
08	PSB12-14-17-	RG51FMS	08/18/10	08/18/10
09	PSB12-14-17-	RG51FMSD	08/18/10	08/18/10
10	PSB12-4-6-07	RG51G	08/18/10	08/18/10

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PCP by GC/ECD Method SW8041
Page 1 of 1

Sample ID: MB-080710
METHOD BLANK

Lab Sample ID: MB-080710
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/19/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Date Extracted: 08/07/10
Date Analyzed: 08/18/10 17:37
Instrument/Analyst: ECD1/YZ

Sample Amount: 10.0 g
Final Extract Volume: 25 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
87-86-5	Pentachlorophenol	6.2	< 6.2 U

Reported in µg/kg (ppb)

Chlorophenol Surrogate Recovery

2,4,6-Tribromophenol	58.0%

FORM I

6D
CHLOROPHENOL INITIAL CALIBRATION
RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 08/09/10

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol___	11.22	11.22	11.22	11.21	11.21	11.21	11.15	11.29
2,4,6-Trichloropheno	7.26	7.26	7.26	7.26	7.26	7.26	7.19	7.33
2,3,6-Trichloropheno	7.62	7.62	7.62	7.61	7.61	7.62	7.55	7.69
2,4,5-Trichloropheno	8.25	8.24	8.23	8.22	8.21	8.23	8.17	8.31
2,3,4-Trichloropheno	8.81	8.79	8.78	8.77	8.76	8.78	8.72	8.86
2,3,5,6-Tetrachlorop	9.01	9.01	9.00	9.00	8.99	9.00	8.94	9.08
2,3,4,5-Tetrachlorop	10.42	10.41	10.41	10.40	10.39	10.40	10.34	10.48
2,4-Dichlorophenol__	6.90	6.89	6.89	6.89	6.88	6.89	6.82	6.96
2,4,6-Tribromophenol	10.01	10.00	10.00	9.99	9.98	10.00	9.93	10.07

6D
CHLOROPHENOL INITIAL CALIBRATION
RETENTION TIME WINDOWS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 08/09/10

	RT OF STANDARDS					MEAN	RT WINDOW	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	RT	FROM	TO
Pentachlorophenol___	11.66	11.65	11.65	11.65	11.65	11.65	11.59	11.73
2,4,6-Trichloropheno	7.33	7.33	7.33	7.33	7.33	7.33	7.26	7.40
2,3,6-Trichloropheno	7.86	7.86	7.86	7.86	7.85	7.86	7.79	7.93
2,4,5-Trichloropheno	8.62	8.61	8.60	8.59	8.59	8.60	8.54	8.69
2,3,4-Trichloropheno	9.38	9.37	9.36	9.36	9.35	9.36	9.31	9.45
2,3,5,6-Tetrachlorop	9.28	9.27	9.27	9.26	9.26	9.27	9.21	9.35
2,3,4,5-Tetrachlorop	11.13	11.12	11.11	11.11	11.10	11.11	11.06	11.20
2,4-Dichlorophenol__	7.17	7.16	7.16	7.16	7.15	7.16	7.10	7.24
2,4,6-Tribromophenol	10.65	10.64	10.64	10.63	10.63	10.64	10.58	10.72

6E
CHLOROPHENOL INITIAL CALIBRATION
CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 08/09/10

	CALIBRATION FACTORS						R^2/	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	%RSD	CT
Pentachlorophenol____	24528	19824	17830	15337	13686	11965	0.9996	Q
2,4,6-Trichlorophenol	13540	10473	9560	8413	7539	6660	0.9997	Q
2,3,6-Trichlorophenol	12902	10500	9607	8801	8025	7161	0.9998	Q
2,4,5-Trichlorophenol	6404	5362	5688	4915	4290	3627	19.7	A
2,3,4-Trichlorophenol	8393	7068	7135	7922	5474	5053	19.4	A
2,3,5,6-Tetrachloroph	17905	15060	14996	14233	11882	10558	18.4	A
2,3,4,5-Tetrachloroph	16324	13459	12294	10216	8895	7628	0.9995	Q
2,4-Dichlorophenol___	721	627	611	486	409	342	0.9993	Q
2,4,6-Tribromophenol	18561	14998	13969	12135	11200	9940	0.9997	Q
						AVE RSD	23.3	

CT stands for Curve Types:
- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20100809.b/ical-1.b/0809A006.d/0809A006.cdf
LVL 2: /chem2/ecd1.i/FPCP20100809.b/ical-1.b/0809A007.d/0809A007.cdf
LVL 3: /chem2/ecd1.i/FPCP20100809.b/ical-1.b/0809A008.d
LVL 4: /chem2/ecd1.i/FPCP20100809.b/ical-1.b/0809A005.d/0809A005.cdf
LVL 5: /chem2/ecd1.i/FPCP20100809.b/ical-1.b/0809A009.d
LVL 6: /chem2/ecd1.i/FPCP20100809.b/ical-1.b/0809A010.d

6E
CHLOROPHENOL INITIAL CALIBRATION
CALIBRATION FACTORS

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Calibration Date: 08/09/10

	CALIBRATION FACTORS						R^2/	
COMPOUND	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	%RSD	CT
Pentachlorophenol____	28790	24995	23903	21206	20507	18368	16.2	A
2,4,6-Trichlorophenol	14811	12542	14020	12241	11222	10070	14.0	A
2,3,6-Trichlorophenol	15358	13183	12610	12054	11138	10108	14.6	A
2,4,5-Trichlorophenol	9451	7724	7152	6203	5568	4896	0.9997	Q
2,3,4-Trichlorophenol	13138	11714	9430	8408	7532	6669	0.9995	Q
2,3,5,6-Tetrachloroph	22710	20100	18581	17733	16666	15298	14.2	A
2,3,4,5-Tetrachloroph	18414	16106	15136	13550	12798	11541	17.0	A
2,4-Dichlorophenol___	859	720	733	619	536	458	0.9997	Q
2,4,6-Tribromophenol	22648	19438	18816	17793	17226	16083	12.2	A
						AVE RSD	17.9	

CT stands for Curve Types:
- A Indicates an Average Response Factor Curve
- L Indicates a Linear Curve
- Q Indicates a Quadratic Curve

CALIBRATION FILES

LVL 1: /chem2/ecd1.i/FPCP20100809.b/ical-2.b/0809A006.d/0809A006.cdf
LVL 2: /chem2/ecd1.i/FPCP20100809.b/ical-2.b/0809A007.d/0809A007.cdf
LVL 3: /chem2/ecd1.i/FPCP20100809.b/ical-2.b/0809A008.d
LVL 4: /chem2/ecd1.i/FPCP20100809.b/ical-2.b/0809A005.d
LVL 5: /chem2/ecd1.i/FPCP20100809.b/ical-2.b/0809A009.d
LVL 6: /chem2/ecd1.i/FPCP20100809.b/ical-2.b/0809A010.d

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 08/09/10 08/09/10

Client Sample No.(PCP): Date Analyzed :08/18/10

Lab Sample ID (PCP): PCPCCAL Time Analyzed :1717

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.21	11.15	11.29	23.8	25.0	-4.8
2,4,6-Trichlorophenol	7.26	7.19	7.33	24.8	25.0	-0.8
2,3,6-Trichlorophenol	7.62	7.55	7.69	22.8	25.0	-8.8
2,4,5-Trichlorophenol	8.22	8.17	8.31	24.0	25.0	-4.0
2,3,4-Trichlorophenol	8.77	8.72	8.86	24.5	25.0	-2.0
2,3,5,6-Tetrachlorophenol	8.99	8.94	9.08	24.0	25.0	-4.0
2,3,4,5-Tetrachlorophenol	10.39	10.34	10.48	23.7	25.0	-5.2
2,4-Dichlorophenol	6.89	6.82	6.96	218	250	-12.8
2,4,6-Tribromophenol (surr	9.99	9.93	10.07	23.7	25.0	-5.2

AVERAGE %D = 5.3

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 08/09/10 08/09/10

Client Sample No.(PCP): Date Analyzed :08/18/10

Lab Sample ID (PCP): PCPCCAL Time Analyzed :1717

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.65	11.59	11.73	22.5	25.0	-10.0
2,4,6-Trichlorophenol	7.33	7.26	7.40	24.5	25.0	-2.0
2,3,6-Trichlorophenol	7.86	7.79	7.93	23.1	25.0	-7.6
2,4,5-Trichlorophenol	8.59	8.54	8.69	24.6	25.0	-1.6
2,3,4-Trichlorophenol	9.36	9.31	9.45	24.9	25.0	-0.4
2,3,5,6-Tetrachlorophenol	9.26	9.21	9.35	24.6	25.0	-1.6
2,3,4,5-Tetrachlorophenol	11.11	11.06	11.20	22.0	25.0	-12.0
2,4-Dichlorophenol	7.16	7.10	7.24	235	250	-6.0
2,4,6-Tribromophenol (surr	10.63	10.58	10.72	23.4	25.0	-6.4

AVERAGE %D = 5.3

FORM VII PCP

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm)

Init. Calib. Date(s): 08/09/10 08/09/10

Client Sample No.(PCP): Date Analyzed :08/18/10

Lab Sample ID (PCP): PCPCCAL Time Analyzed :2137

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.21	11.15	11.29	21.9	25.0	-12.4
2,4,6-Trichlorophenol	7.26	7.19	7.33	25.4	25.0	1.6
2,3,6-Trichlorophenol	7.62	7.55	7.69	23.7	25.0	-5.2
2,4,5-Trichlorophenol	8.22	8.17	8.31	23.7	25.0	-5.2
2,3,4-Trichlorophenol	8.77	8.72	8.86	24.7	25.0	-1.2
2,3,5,6-Tetrachlorophenol	9.00	8.94	9.08	24.3	25.0	-2.8
2,3,4,5-Tetrachlorophenol	10.39	10.34	10.48	22.1	25.0	-11.6
2,4-Dichlorophenol	6.89	6.82	6.96	212	250	-15.2
2,4,6-Tribromophenol (surr	9.99	9.93	10.07	23.1	25.0	-7.6

AVERAGE %D = 7.0

FORM VII PCP

7E

CHLOROPHENOL CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm)

Init. Calib. Date(s): 08/09/10 08/09/10

Client Sample No.(PCP): Date Analyzed :08/18/10

Lab Sample ID (PCP): PCPCCAL Time Analyzed :2137

PCP MIX COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT	NOM AMOUNT	%D
Pentachlorophenol	11.65	11.59	11.73	22.9	25.0	-8.4
2,4,6-Trichlorophenol	7.33	7.26	7.40	25.2	25.0	0.8
2,3,6-Trichlorophenol	7.86	7.79	7.93	23.5	25.0	-6.0
2,4,5-Trichlorophenol	8.59	8.54	8.69	24.7	25.0	-1.2
2,3,4-Trichlorophenol	9.36	9.31	9.45	23.3	25.0	-6.8
2,3,5,6-Tetrachlorophenol	9.26	9.21	9.35	24.1	25.0	-3.6
2,3,4,5-Tetrachlorophenol	11.11	11.06	11.20	21.9	25.0	-12.4
2,4-Dichlorophenol	7.16	7.10	7.24	240	250	-4.0
2,4,6-Tribromophenol (surr	10.63	10.58	10.72	23.4	25.0	-6.4

AVERAGE %D = 5.5

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB5 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 08/09/10 08/09/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.00

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	#
01		PCPD	08/09/10	1223	9.99	
02		PCPA	08/09/10	1243	10.01	
03		PCPB	08/09/10	1303	10.00	
04		PCPC	08/09/10	1323	10.00	
05		PCPE	08/09/10	1343	9.98	
06		PCPF	08/09/10	1403	9.98	
07		PCPCCAL	08/18/10	1717	9.99	
08	RG51MBS1	RG51MBS1	08/18/10	1737	9.98	
09	RG51LCSS1	RG51LCSS1	08/18/10	1757	9.98	
10	PSB12-0-0.5-	RG51A	08/18/10	1817	9.98	
11	PSB12-1.5-2.	RG51B	08/18/10	1837	9.98	
12	PSB12-2-4-07	RG51C	08/18/10	1857	9.98	
13	PSB12-8-10-0	RG51D	08/18/10	1917	9.99	
14	PSB12-8-10-0	RG51E	08/18/10	1937	9.99	
15	PSB12-14-17-	RG51F	08/18/10	1957	9.99	
16	PSB12-14-17-	RG51FMS	08/18/10	2017	9.99	
17	PSB12-14-17-	RG51FMSD	08/18/10	2037	9.99	
18	PSB12-4-6-07	RG51G	08/18/10	2057	9.99	
19		PCPCCAL	08/18/10	2137	9.99	

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

CHLOROPHENOL ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

ARI Job No.: RG51 Project: POS-LLA

GC Column: ZB35 ID: 0.53 (mm) Instrument ID: ECD1

Init. Calib. Date(s): 08/09/10 08/09/10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 10.65

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #
01		PCPD	08/09/10	1223	10.63
02		PCPA	08/09/10	1243	10.65
03		PCPB	08/09/10	1303	10.64
04		PCPC	08/09/10	1323	10.64
05		PCPE	08/09/10	1343	10.63
06		PCPF	08/09/10	1403	10.63
07		PCPCCAL	08/18/10	1717	10.63
08	RG51MBS1	RG51MBS1	08/18/10	1737	10.63
09	RG51LCSS1	RG51LCSS1	08/18/10	1757	10.63
10	PSB12-0-0.5-	RG51A	08/18/10	1817	10.63
11	PSB12-1.5-2.	RG51B	08/18/10	1837	10.63
12	PSB12-2-4-07	RG51C	08/18/10	1857	10.63
13	PSB12-8-10-0	RG51D	08/18/10	1917	10.63
14	PSB12-8-10-0	RG51E	08/18/10	1937	10.63
15	PSB12-14-17-	RG51F	08/18/10	1957	10.63
16	PSB12-14-17-	RG51FMS	08/18/10	2017	10.63
17	PSB12-14-17-	RG51FMSD	08/18/10	2037	10.63
18	PSB12-4-6-07	RG51G	08/18/10	2057	10.63
19		PCPCCAL	08/18/10	2137	10.63

QC LIMITS

S1 = 2,4,6-Tribromophenol (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII PCP

TPHD Analysis
Report and Summary QC Forms

ARI Job ID: RG51

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1
Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA

Data Release Authorized: MW
Reported: 08/05/10

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
RG51A	PSB12-0-0.5-072810	08/02/10	08/03/10	1.00	**Diesel**	**5.4**	**14**
10-18183	HC ID: **DRO/MOTOR OIL**		FID9	1.0	**Motor Oil**	**11**	**200**
					o-Terphenyl		113%
RG51B	PSB12-1.5-2.0-072810	08/02/10	08/03/10	1.00	Diesel	5.1	< 5.1 U
10-18184	HC ID: **MOTOR OIL**		FID9	1.0	**Motor Oil**	**10**	**12**
					o-Terphenyl		115%
RG51C	PSB12-2-4-072810	08/02/10	08/03/10	1.00	**Diesel**	**5.3**	**6.0**
10-18185	HC ID: **DRO/MOTOR OIL**		FID9	1.0	**Motor Oil**	**11**	**50**
					o-Terphenyl		117%
RG51D	PSB12-8-10-072810	08/02/10	08/03/10	1.00	Diesel	5.2	< 5.2 U
10-18186	HC ID: ---		FID9	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		116%
RG51E	PSB12-8-10-072810-D	08/02/10	08/03/10	1.00	Diesel	5.1	< 5.1 U
10-18187	HC ID: ---		FID9	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		116%
MB-080210	Method Blank	08/02/10	08/04/10	1.00	Diesel	5.0	< 5.0 U
10-18188	HC ID: ---		FID9	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		103%
RG51F	PSB12-14-17-072810	08/02/10	08/03/10	1.00	Diesel	5.1	< 5.1 U
10-18188	HC ID: **MOTOR OIL**		FID9	1.0	**Motor Oil**	**10**	**42**
					o-Terphenyl		116%
RG51G	PSB12-4-6-072810	08/02/10	08/03/10	1.00	**Diesel**	**5.4**	**10**
10-18189	HC ID: **DRO/MOTOR OIL**		FID9	1.0	**Motor Oil**	**11**	**110**
					o-Terphenyl		115%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA

Client ID	OTER	TOT OUT
PSB12-0-0.5-072810	113%	0
PSB12-1.5-2.0-0728	115%	0
PSB12-2-4-072810	117%	0
PSB12-8-10-072810	116%	0
PSB12-8-10-072810-	116%	0
MB-080210	103%	0
LCS-080210	105%	0
LCSD-080210	110%	0
PSB12-14-17-072810	116%	0
PSB12-14-17-072810 MS	118%	0
PSB12-14-17-072810 MSD	120%	0
PSB12-4-6-072810	115%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(63-115)	(49-120)

Prep Method: SW3546
Log Number Range: 10-18183 to 10-18189

FORM-II TPHD

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned
Page 1 of 1

Sample ID: PSB12-14-17-072810
MS/MSD

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/05/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Extracted MS/MSD: 08/02/10

Date Analyzed MS: 08/03/10 23:26
MSD: 08/03/10 23:47
Instrument/Analyst MS: FID/MS
MSD: FID/MS

Sample Amount MS: 9.95 g-dry-wt
MSD: 9.58 g-dry-wt
Final Extract Volume MS: 1.0 mL
MSD: 1.0 mL
Dilution Factor MS: 1.0
MSD: 1.0
Percent Moisture: 4.7%

Range	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Diesel	< 5.1	131	151	86.8%	139	157	88.5%	5.9%

TPHD Surrogate Recovery

	MS	MSD
o-Terphenyl	118%	120%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-080210**
Page 1 of 1 LCS/LCSD

Lab Sample ID: LCS-080210 QC Report No: RG51-Floyd/Snider
LIMS ID: 10-18188 Project: Lora Lakes RI
Matrix: Soil POS-LLA
Data Release Authorized: MW Date Sampled: 07/28/10
Reported: 08/05/10 Date Received: 07/28/10

Date Extracted LCS/LCSD: 08/02/10 Sample Amount LCS: 10.0 g
LCSD: 10.0 g
Date Analyzed LCS: 08/04/10 00:09 Final Extract Volume LCS: 1.0 mL
LCSD: 08/04/10 00:30 LCSD: 1.0 mL
Instrument/Analyst LCS: FID/MS Dilution Factor LCS: 1.0
LCSD: FID/MS LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	126	150	84.0%	131	150	87.3%	3.9%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	105%	110%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: RG51
Matrix: Soil Project: Lora Lakes RI
Date Received: 07/28/10 POS-LLA

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
10-18183-RG51A	PSB12-0-0.5-072810	9.21 g	1.00 mL	D	08/02/10
10-18184-RG51B	PSB12-1.5-2.0-072819	9.72 g	1.00 mL	D	08/02/10
10-18185-RG51C	PSB12-2-4-072810	9.45 g	1.00 mL	D	08/02/10
10-18186-RG51D	PSB12-8-10-072810	9.69 g	1.00 mL	D	08/02/10
10-18187-RG51E	PSB12-8-10-072810-D	9.73 g	1.00 mL	D	08/02/10
10-18188-080210MB1	Method Blank	10.0 g	1.00 mL	-	08/02/10
10-18188-080210LCS1	Lab Control	10.0 g	1.00 mL	-	08/02/10
10-18188-080210LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	08/02/10
10-18188-RG51F	PSB12-14-17-072810	9.76 g	1.00 mL	D	08/02/10
10-18188-RG51FMS	PSB12-14-17-072810	9.95 g	1.00 mL	D	08/02/10
10-18188-RG51FMSD	PSB12-14-17-072810	9.58 g	1.00 mL	D	08/02/10
10-18189-RG51G	PSB12-4-6-072810	9.24 g	1.00 mL	D	08/02/10

Basis: D=Dry Weight W=As Received

TPH METHOD BLANK SUMMARY

BLANK NO.

RG66MBS1

Lab Name: ANALYTICAL RESOURCES, INC

Client: FLOYD/SNIDER

SDG No.: RG51,RG54

Project No.: LORA LAKE APTS.

Date Extracted: 08/02/10

Matrix: SOLID

Date Analyzed : 08/04/10

Instrument ID : FID9

Time Analyzed : 0052

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	PSB12-14-17-	RG51F	08/03/10
02	PSB12-1.5-2.	RG51B	08/03/10
03	PSB12-0-0.5-	RG51A	08/03/10
04	PSB12-2-4-07	RG51C	08/03/10
05	PSB12-8-10-0	RG51D	08/03/10
06	PSB12-8-10-0	RG51E	08/03/10
07	PSB12-4-6-07	RG51G	08/03/10
08	PSB12-14-17-	RG51FMS	08/03/10
09	PSB12-14-17-	RG51FMSD	08/03/10
10	RG66LCSS1	RG66LCSS1	08/04/10
11	RG66LCSDS1	RG66LCSDS1	08/04/10
12	PSB14-0-.5-0	RG54A	08/04/10
13	PSB14-1.5-2.	RG54B	08/04/10
14	PSB14-2-4-07	RG54C	08/04/10
15	PSB14-7-9-07	RG54E	08/04/10
16	PSB14-12-14-	RG54F	08/04/10
17	PSB17-0-0.5-	RG54H	08/04/10
18	PSB17-1.5-2-	RG54I	08/04/10
19	PSB17-2-4-07	RG54J	08/04/10
20	PSB17-4-6-07	RG54K	08/04/10
21	PSB17-10-13-	RG54L	08/04/10
22			
23			
24			
25			
26			
27			
28			
29			
30			

FORM IV TPH

6a
NW DIESEL INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: FLOYD/SNIDER

Instrument: FID9.I
Project: LORA LAKE APTS.

Calibration Date: 28-JUL-2010
SDG No.: RG51,RG54

Diesel Range	RF1 50	RF2 100	RF3 250	RF4 500	RF5 1000	RF6 2500	Ave RF	%RSD
WA Diesel	25798	26021	26287	26699	26258	26926	26331	1.6
AK Diesel	28440	28641	29044	29481	28983	29726	29053	1.7
OR Diesel	28651	28856	29299	29708	29231	30010	29293	1.7
o-Terph	25541	25406	25759	26018	26067	25782	25762	1.0

<- Indicates %RSD outside limits
Surrogate areas are not included in Diesel RF calculation.

Quant Ranges :

WA Diesel	C12-C24	(3.091-6.020)
AK Diesel	C10-C25	(2.455-6.212)
OR Diesel	C10-C28	(2.455-6.723)

Calibration Files	Analysis Time
0728A012.D	28-JUL-2010 20:24
0728A013.D	28-JUL-2010 20:45
0728A014.D	28-JUL-2010 21:07
0728A015.D	28-JUL-2010 21:28
0728A016.D	28-JUL-2010 21:49
0728A017.D	28-JUL-2010 22:11

FORM VI-Diesel

NW MOTOR OIL RANGE INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC.

Client: FLOYD/SNIDER

Instrument: FID9.I

Project: LORA LAKE APTS.

Calibration Date: 29-JUL-2010

SDG No.: RG51,RG54

Product Range	RF1 100	RF2 250	RF3 500	RF4 1000	RF5 2500	RF6 5000	Ave RF	%RSD
WA M.Oil C24-C38	14669	13064	12525	12576	12003	11886	12787	7.9
Triac Surr	20395	20154	19766	20069	19304	19306	19832	2.3

<- Indicates %RSD outside limits
Surrogate areas are not included in Motor Oil RF calculation.

Calibration Files	Analysis Time
0728A019.D	28-JUL-2010 22:53
0728A020.D	28-JUL-2010 23:15
0728A021.D	28-JUL-2010 23:36
0728A022.D	28-JUL-2010 23:57
0728A023.D	29-JUL-2010 00:18
0728A024.D	29-JUL-2010 00:40

FORM VI-M.Oil

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010
Project: LORA LAKE APTS.

CCal Date: 03-AUG-2010
SDG No.: RG51,RG54

Analysis Time: 18:03
Lab ID: DIESEL#2

Instrument: FID9.I
Lab File Name: 0803A017.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	6132149	232.9	250	-6.8
AK102 (C10-C25)	6816350	234.6	250	-6.2
Terphenyl	1064000	41.3	45	-8.2

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

FORM VII-Diesel

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKE APTS.

CCal Date: 03-AUG-2010 SDG No.: RG51,RG54

Analysis Time: 18:25 Lab ID: MOIL#2

Instrument: FID9.I Lab File Name: 0803A018.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D	
WAMoil(C24-C38)	6588886	515.3	500	3.1	
AK103 (C25-C36)	5607210	1119.4	500	123.9	<-
n-Triacontane	881439	44.4	45	-1.2	

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKE APTS.

CCal Date: 04-AUG-2010 SDG No.: RG51,RG54

Analysis Time: 01:13 Lab ID: DIESEL#3

Instrument: FID9.I Lab File Name: 0803A037.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	6231950	236.7	250	-5.3
AK102 (C10-C25)	6922487	238.3	250	-4.7
Terphenyl	1056576	41.0	45	-8.9

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010
Project: LORA LAKE APTS.

CCal Date: 04-AUG-2010
SDG No.: RG51,RG54

Analysis Time: 01:34
Lab ID: MOIL#3

Instrument: FID9.I
Lab File Name: 0803A038.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D	
WAMoil(C24-C38)	6524419	510.2	500	2.0	
AK103 (C25-C36)	5611144	1120.2	500	124.0	<-
n-Triacontane	903945	45.6	45	1.3	

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

FORM VII-Diesel

7a

DIESEL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKE APTS.

CCal Date: 04-AUG-2010 SDG No.: RG51,RG54

Analysis Time: 05:49 Lab ID: DIESEL#4

Instrument: FID9.I Lab File Name: 0803A050.D

Diesel Range	Area*	CalcAmnt	NomAmnt	% D
WADies(C12-C24)	6276395	238.4	250	-4.7
AK102 (C10-C25)	6977114	240.2	250	-3.9
Terphenyl	1075829	41.8	45	-7.2

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA Diesel C12-C24
AK Diesel C10-C25

MOTOR OIL CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC.
Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010
Project: LORA LAKE APTS.

CCal Date: 04-AUG-2010
SDG No.: RG51,RG54

Analysis Time: 06:11
Lab ID: MOIL#4

Instrument: FID9.I
Lab File Name: 0803A051.D

M.oil Range	Area*	CalcAmnt	NomAmnt	% D	
WAMoil(C24-C38)	6698090	523.8	500	4.8	
AK103 (C25-C36)	5786031	1155.1	500	131.0	<-
n-Triacontane	925341	46.7	45	3.7	

* Surrogate areas are subtracted from range areas
<- Indicates a %D outside QC limits

Quant Ranges : WA M.Oil C24-C38
AK M.Oil C25-C36

FORM VII-Diesel

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC
Client: FLOYD/SNIDER

SDG No.: RG51,RG54
Project: LORA LAKE APTS.

Instrument ID: FID9
GC Column: RTX-1

Run Date: 07/29/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.77 TRIAC: 7.04

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01		RT	07/28/10	1941	4.77	7.08
02		IB	07/28/10	2002	4.77	7.08
03		DIESEL 50	07/28/10	2024	4.76	7.04
04		DIESEL 100	07/28/10	2045	4.76	7.04
05		DIESEL 250	07/28/10	2107	4.77	7.04
06		DIESEL 500	07/28/10	2128	4.78	7.04
07		DIESEL 1000	07/28/10	2149	4.80	7.03
08		DIESEL 2500	07/28/10	2211	4.83*	7.04
09		DIESEL ICV	07/28/10	2232	4.77	7.04
10		MOIL 100	07/28/10	2253	4.77	7.08
11		MOIL 250	07/28/10	2315	4.77	7.09
12		MOIL 500	07/28/10	2336	4.76	7.09*
13		MOIL 1000	07/28/10	2357	4.76	7.10*
14		MOIL 2500	07/29/10	0018	4.76	7.13*
15		MOIL 5000	07/29/10	0040	4.76	7.16*
16		MOIL ICV	07/29/10	0101	4.76	7.09*
				QC LIMITS	(+/- 0.05 MINUTES)	(+/- 0.05 MINUTES)

TERPH = o-terph
TRIAC = Triacon Surr

* Values outside of QC limits.

FORM VIII TPH

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51,RG54 Project: LORA LAKE APTS.

Instrument ID: FID9 GC Column: RTX-1

Run Date: 08/03/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.79 TRIAC: 7.12

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	RT	RT	08/03/10	1238	4.79	7.14
02	IB	IB	08/03/10	1342	4.79	7.14
03	DIESEL#2	DIESEL#2	08/03/10	1803	4.79	7.12
04	MOIL#2	MOIL#2	08/03/10	1825	4.81	7.13
05	ZZZZZ	ZZZZZ	08/03/10	1847	4.80	7.13
06	ZZZZZ	ZZZZZ	08/03/10	1908	4.78	7.12
07	PSB12-14-17-	RG51F	08/03/10	1930	4.79	7.13
08	ZZZZZ	ZZZZZ	08/03/10	1951	4.78	7.11
09	ZZZZZ	ZZZZZ	08/03/10	2013	4.78	7.12
10	ZZZZZ	ZZZZZ	08/03/10	2035	4.78	7.12
11	ZZZZZ	ZZZZZ	08/03/10	2056	4.78	7.12
12	PSB12-1.5-2.	RG51B	08/03/10	2117	4.79	7.13
13	PSB12-0-0.5-	RG51A	08/03/10	2139	4.79	7.15
14	PSB12-2-4-07	RG51C	08/03/10	2200	4.79	7.13
15	PSB12-8-10-0	RG51D	08/03/10	2222	4.79	7.13
16	PSB12-8-10-0	RG51E	08/03/10	2243	4.79	7.13
17	PSB12-4-6-07	RG51G	08/03/10	2305	4.79	7.13
18	PSB12-14-17-	RG51FMS	08/03/10	2326	4.80	7.13
19	PSB12-14-17-	RG51FMSD	08/03/10	2347	4.80	7.13
20	RG66LCSS1	RG66LCSS1	08/04/10	0009	4.80	7.12
21	RG66LCSDS1	RG66LCSDS1	08/04/10	0030	4.80	7.12
22	RG66MBS1	RG66MBS1	08/04/10	0052	4.79	7.12
23	DIESEL#3	DIESEL#3	08/04/10	0113	4.79	7.11
24	MOIL#3	MOIL#3	08/04/10	0134	4.78	7.13
25	ZZZZZ	ZZZZZ	08/04/10	0156	4.78	7.13
26	PSB14-0-.5-0	RG54A	08/04/10	0217	4.79	7.14
27	PSB14-1.5-2.	RG54B	08/04/10	0238	4.79	7.13
28	PSB14-2-4-07	RG54C	08/04/10	0259	4.79	7.13
29	PSB14-7-9-07	RG54E	08/04/10	0321	4.79	7.13
30	PSB14-12-14-	RG54F	08/04/10	0342	4.79	7.13
31	PSB17-0-0.5-	RG54H	08/04/10	0403	4.79	7.15
32	PSB17-1.5-2-	RG54I	08/04/10	0424	4.79	7.13

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51,RG54 Project: LORA LAKE APTS.

Instrument ID: FID9 GC Column: RTX-1

Run Date: 08/03/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
TERPH: 4.79 TRIAC: 7.12

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TERPH RT #	TRIAC RT #
01	PSB17-2-4-07	RG54J	08/04/10	0446	4.79	7.13
02	PSB17-4-6-07	RG54K	08/04/10	0507	4.79	7.13
03	PSB17-10-13-	RG54L	08/04/10	0528	4.79	7.13
04	DIESEL#4	DIESEL#4	08/04/10	0549	4.79	7.11
05	MOIL#4	MOIL#4	08/04/10	0611	4.78	7.13
06	ZZZZZ	ZZZZZ	08/04/10	0632	4.78	7.13

QC LIMITS

TERPH = o-terph (+/- 0.05 MINUTES)
TRIAC = Triacon Surr (+/- 0.05 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

TPHG/BETX Analysis
Report and Summary QC Forms

ARI Job ID: RG51

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: PSB12-0-0.5-072810
SAMPLE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 12:50
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 150 mg-dry-wt
Percent Moisture: 9.1%

CAS Number	Analyte	RL	Result
71-43-2	Benzene	8.4	< 8.4 U
108-88-3	Toluene	8.4	< 8.4 U
100-41-4	Ethylbenzene	8.4	< 8.4 U
179601-23-1	m,p-Xylene	17	< 17 U
95-47-6	o-Xylene	8.4	< 8.4 U

			GAS ID
	Gasoline Range Hydrocarbons	3.3	< 3.3 U	---

BETX Surrogate Recovery

Trifluorotoluene	94.9%
Bromobenzene	96.6%

Gasoline Surrogate Recovery

Trifluorotoluene	99.3%
Bromobenzene	100%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG

Sample ID: PSB12-1.5-2.0-072810
SAMPLE

Lab Sample ID: RG51B
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 13:15
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 140 mg-dry-wt
Percent Moisture: 5.9%

CAS Number	Analyte	RL	Result
71-43-2	Benzene	8.8	< 8.8 U
108-88-3	Toluene	8.8	< 8.8 U
100-41-4	Ethylbenzene	8.8	< 8.8 U
179601-23-1	m,p-Xylene	18	< 18 U
95-47-6	o-Xylene	8.8	< 8.8 U

			GAS ID
Gasoline Range Hydrocarbons	3.5	< 3.5 U	---

BETX Surrogate Recovery

Trifluorotoluene	95.4%
Bromobenzene	97.0%

Gasoline Surrogate Recovery

Trifluorotoluene	99.2%
Bromobenzene	100%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: PSB12-2-4-072810
SAMPLE

Lab Sample ID: RG51C
LIMS ID: 10-18185
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 13:39
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 170 mg-dry-wt
Percent Moisture: 6.7%

CAS Number	Analyte	RL	Result	
71-43-2	Benzene	7.3	< 7.3 U	
108-88-3	Toluene	7.3	< 7.3 U	
100-41-4	Ethylbenzene	7.3	< 7.3 U	
179601-23-1	m,p-Xylene	15	< 15 U	
95-47-6	o-Xylene	7.3	< 7.3 U	
	Gasoline Range Hydrocarbons	2.9	< 2.9 U	GAS ID ---

BETX Surrogate Recovery

Trifluorotoluene	92.5%
Bromobenzene	95.1%

Gasoline Surrogate Recovery

Trifluorotoluene	96.9%
Bromobenzene	98.6%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: PSB12-8-10-072810
SAMPLE

Lab Sample ID: RG51D
LIMS ID: 10-18186
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 14:04
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 100 mg-dry-wt
Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
71-43-2	Benzene	12	< 12 U
108-88-3	Toluene	12	< 12 U
100-41-4	Ethylbenzene	12	< 12 U
179601-23-1	m,p-Xylene	24	< 24 U
95-47-6	o-Xylene	12	< 12 U

			GAS ID
Gasoline Range Hydrocarbons	4.8	< 4.8 U	---

BETX Surrogate Recovery

Trifluorotoluene	91.4%
Bromobenzene	94.2%

Gasoline Surrogate Recovery

Trifluorotoluene	96.2%
Bromobenzene	96.5%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG

Sample ID: PSB12-8-10-072810-D
SAMPLE

Lab Sample ID: RG51E
LIMS ID: 10-18187
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 14:29
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 150 mg-dry-wt
Percent Moisture: 4.6%

CAS Number	Analyte	RL	Result
71-43-2	Benzene	8.2	< 8.2 U
108-88-3	Toluene	8.2	< 8.2 U
100-41-4	Ethylbenzene	8.2	< 8.2 U
179601-23-1	m,p-Xylene	16	< 16 U
95-47-6	o-Xylene	8.2	< 8.2 U

			GAS ID
	Gasoline Range Hydrocarbons	3.3	< 3.3 U ---

BETX Surrogate Recovery

Trifluorotoluene	93.2%
Bromobenzene	97.2%

Gasoline Surrogate Recovery

Trifluorotoluene	98.4%
Bromobenzene	100%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: PSB12-14-17-072810
SAMPLE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 14:54
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 200 mg-dry-wt
Percent Moisture: 4.7%

CAS Number	Analyte	RL	Result
71-43-2	Benzene	6.4	< 6.4 U
108-88-3	Toluene	6.4	< 6.4 U
100-41-4	Ethylbenzene	6.4	< 6.4 U
179601-23-1	m,p-Xylene	13	< 13 U
95-47-6	o-Xylene	6.4	< 6.4 U

			GAS ID
	Gasoline Range Hydrocarbons	2.6	< 2.6 U ---

BETX Surrogate Recovery

Trifluorotoluene	90.6%
Bromobenzene	92.1%

Gasoline Surrogate Recovery

Trifluorotoluene	95.2%
Bromobenzene	95.8%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG

Sample ID: PSB12-4-6-072810
SAMPLE

Lab Sample ID: RG51G
LIMS ID: 10-18189
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 16:08
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 140 mg-dry-wt
Percent Moisture: 8.4%

CAS Number	Analyte	RL	Result	
71-43-2	Benzene	9.1	< 9.1 U	
108-88-3	Toluene	9.1	< 9.1 U	
100-41-4	Ethylbenzene	9.1	< 9.1 U	
179601-23-1	m,p-Xylene	18	< 18 U	
95-47-6	o-Xylene	9.1	< 9.1 U	
	Gasoline Range Hydrocarbons	3.6	< 3.6 U	GAS ID ---

BETX Surrogate Recovery

Trifluorotoluene	95.7%
Bromobenzene	97.8%

Gasoline Surrogate Recovery

Trifluorotoluene	99.4%
Bromobenzene	101%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: PSB12-TB
SAMPLE

Lab Sample ID: RG51H
LIMS ID: 10-18190
Matrix: Water
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed: 08/04/10 12:26
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
179601-23-1	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

			GAS ID
Gasoline Range Hydrocarbons	0.25	< 0.25 U	---

BETX Surrogate Recovery

Trifluorotoluene	99.0%
Bromobenzene	99.7%

Gasoline Surrogate Recovery

Trifluorotoluene	103%
Bromobenzene	102%

BETX values reported in µg/L (ppb)
Gasoline values reported in mg/L (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

ANALYTICAL RESOURCES INCORPORATED

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RG51
Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA

Client ID	BFB	TFT	BBZ	TOT OUT
PSB12-0-0.5-072810	NA	99.3%	100%	0
PSB12-1.5-2.0-072810	NA	99.2%	100%	0
PSB12-2-4-072810	NA	96.9%	98.6%	0
PSB12-8-10-072810	NA	96.2%	96.5%	0
PSB12-8-10-072810-D	NA	98.4%	100%	0
MB-080410	NA	101%	102%	0
LCS-080410	NA	102%	101%	0
LCSD-080410	NA	103%	103%	0
PSB12-14-17-072810	NA	95.2%	95.8%	0
PSB12-14-17-072810 MS	NA	99.1%	98.7%	0
PSB12-14-17-072810 MSD	NA	111%	109%	0
PSB12-4-6-072810	NA	99.4%	101%	0

	LCS/MB LIMITS	QC LIMITS
(BFB) = Bromofluorobenzene	(70-130)	(70-130)
(TFT) = Trifluorotoluene	(80-120)	(66-123)
(BBZ) = Bromobenzene	(80-120)	(62-130)

Log Number Range: 10-18183 to 10-18189

ANALYTICAL RESOURCES INCORPORATED

BETX SOIL SURROGATE RECOVERY SUMMARY

ARI Job: RG51
Matrix: Soil

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA

Client ID	TFT	BBZ	TOT OUT
PSB12-0-0.5-072810	94.9%	96.6%	0
PSB12-1.5-2.0-072810	95.4%	97.0%	0
PSB12-2-4-072810	92.5%	95.1%	0
PSB12-8-10-072810	91.4%	94.2%	0
PSB12-8-10-072810-D	93.2%	97.2%	0
MB-080410	97.2%	98.5%	0
LCS-080410	98.6%	97.3%	0
LCSD-080410	98.4%	101%	0
PSB12-14-17-072810	90.6%	92.1%	0
PSB12-14-17-072810 MS	94.9%	96.7%	0
PSB12-14-17-072810 MSD	106%	106%	0
PSB12-4-6-072810	95.7%	97.8%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(68-124)
(BBZ) = Bromobenzene	(77-120)	(62-134)

Log Number Range: 10-18183 to 10-18189

ANALYTICAL RESOURCES INCORPORATED

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: RG51
Matrix: Water

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA

Client ID	TFT	BBZ	TOT OUT
MB-080410	101%	102%	0
LCS-080410	102%	101%	0
LCSD-080410	103%	103%	0
PSB12-TB	103%	102%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 10-18190 to 10-18190

ANALYTICAL RESOURCES INCORPORATED

BETX WATER SURROGATE RECOVERY SUMMARY

ARI Job: RG51
Matrix: Water

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA

Client ID	TFT	BBZ	TOT OUT
MB-080410	97.2%	98.5%	0
LCS-080410	98.6%	97.3%	0
LCSD-080410	98.4%	101%	0
PSB12-TB	99.0%	99.7%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(79-120)	(80-120)
(BBZ) = Bromobenzene	(79-120)	(80-120)

Log Number Range: 10-18190 to 10-18190

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: PSB12-14-17-072810
MATRIX SPIKE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed MS: 08/04/10 15:18
MSD: 08/04/10 15:43
Instrument/Analyst MS: PID3/AAR
MSD: PID3/AAR

Purge Volume: 5.0 mL

Sample Amount MS: 196 mg-dry-wt
MSD: 196 mg-dry-wt

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Gasoline Range Hydrocarbons	< 2.55 U	23.6	25.5	92.5%	27.0	25.5	106%	13.4%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	MS	MSD
Trifluorotoluene	99.1%	111%
Bromobenzene	98.7%	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: PSB12-14-17-072810
MATRIX SPIKE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Date Analyzed MS: 08/04/10 15:18
MSD: 08/04/10 15:43
Instrument/Analyst MS: PID3/AAR
MSD: PID3/AAR

Purge Volume: 5.0 mL

Sample Amount MS: 196 mg-dry-wt
MSD: 196 mg-dry-wt

Analyte	Sample	MS	Spike Added-MS	MS Recovery	MSD	Spike Added-MSD	MSD Recovery	RPD
Benzene	< 6.37 U	52.5	53.6	97.9%	59.6	53.6	111%	12.7%
Toluene	< 6.37 U	701	732	95.8%	792	732	108%	12.2%
Ethylbenzene	< 6.37 U	216	235	91.9%	245	235	104%	12.6%
m,p-Xylene	< 12.7 U	770	862	89.3%	874	862	101%	12.7%
o-Xylene	< 6.37 U	338	357	94.7%	378	357	106%	11.2%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

BETX Surrogate Recovery

	MS	MSD
Trifluorotoluene	94.9%	106%
Bromobenzene	96.7%	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-080410
LAB CONTROL SAMPLE

Lab Sample ID: LCS-080410
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 08/04/10 07:47
LCSD: 08/04/10 08:11
Instrument/Analyst LCS: PID3/AAR
LCSD: PID3/AAR

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	50.7	50.0	101%	50.2	50.0	100%	1.0%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	102%	103%
Bromobenzene	101%	103%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: LCS-080410
LAB CONTROL SAMPLE

Lab Sample ID: LCS-080410
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 08/04/10 07:47
LCSD: 08/04/10 08:11
Instrument/Analyst LCS: PID3/AAR
LCSD: PID3/AAR

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	110	105	105%	118	105	112%	7.0%
Toluene	1510	1440	105%	1600	1440	111%	5.8%
Ethylbenzene	447	460	97.2%	487	460	106%	8.6%
m,p-Xylene	1650	1690	97.6%	1740	1690	103%	5.3%
o-Xylene	705	700	101%	756	700	108%	7.0%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

BETX Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.6%	98.4%
Bromobenzene	97.3%	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-080410
LAB CONTROL SAMPLE

Lab Sample ID: LCS-080410
LIMS ID: 10-18190
Matrix: Water
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 08/04/10 07:47
LCSD: 08/04/10 08:11
Instrument/Analyst LCS: PID3/AAR
LCSD: PID3/AAR

Purge Volume: 5.0 mL

Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	1.01	1.00	101%	1.00	1.00	100%	1.0%

Reported in mg/L (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	102%	103%
Bromobenzene	101%	103%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: LCS-080410
LAB CONTROL SAMPLE

Lab Sample ID: LCS-080410
LIMS ID: 10-18190
Matrix: Water
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 08/04/10 07:47
LCSD: 08/04/10 08:11
Instrument/Analyst LCS: PID3/AAR
LCSD: PID3/AAR

Purge Volume: 5.0 mL

Dilution Factor LCS: 1.0
LCSD: 1.0

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	2.21	2.10	105%	2.35	2.10	112%	6.1%
Toluene	30.2	28.7	105%	32.0	28.7	111%	5.8%
Ethylbenzene	8.94	9.20	97.2%	9.74	9.20	106%	8.6%
m,p-Xylene	33.0	33.8	97.6%	34.7	33.8	103%	5.0%
o-Xylene	14.1	14.0	101%	15.1	14.0	108%	6.8%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

BETX Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	98.6%	98.4%
Bromobenzene	97.3%	101%

TPH METHOD BLANK SUMMARY

BLANK NO.: MB0804S1

Lab Name: ANALYTICAL RESOURCES, INC
Client: FLOYD/SNIDER

SDG No.: RG51
Project No.: LORA LAKES RI

Date Extracted:
Matrix: WATER

Date Analyzed : 08/04/10
Instrument ID : PID3

Time Analyzed : 0836

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, and MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED
01	LCS0804S1	LCS0804	08/04/10
02	LCSD0804S1	LCSD0804	08/04/10
03	PSB12-TB	RG51H	08/04/10
04	PSB12-0-0.5-	RG51A	08/04/10
05	PSB12-1.5-2.	RG51B	08/04/10
06	PSB12-2-4-07	RG51C	08/04/10
07	PSB12-8-10-0	RG51D	08/04/10
08	PSB12-8-10-0	RG51E	08/04/10
09	PSB12-14-17-	RG51F	08/04/10
10	PSB12-14-17-	RG51FMS	08/04/10
11	PSB12-14-17-	RG51FMSD	08/04/10
12	PSB12-4-6-07	RG51G	08/04/10
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

FORM IV TPH

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod **Sample ID: MB-080410**
TPHG by Method NWTPHG **METHOD BLANK**

Lab Sample ID: MB-080410
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Analyzed: 08/04/10 08:36
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Sample Amount: 100 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	12	< 12 U
108-88-3	Toluene	12	< 12 U
100-41-4	Ethylbenzene	12	< 12 U
179601-23-1	m,p-Xylene	25	< 25 U
95-47-6	o-Xylene	12	< 12 U

			GAS ID
Gasoline Range Hydrocarbons	5.0	< 5.0 U	---

BETX Surrogate Recovery

Trifluorotoluene	97.2%
Bromobenzene	98.5%

Gasoline Surrogate Recovery

Trifluorotoluene	101%
Bromobenzene	102%

BETX values reported in µg/kg (ppb)
Gasoline values reported in mg/kg (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: MB-080410
METHOD BLANK

Lab Sample ID: MB-080410
LIMS ID: 10-18190
Matrix: Water
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Date Analyzed: 08/04/10 08:36
Instrument/Analyst: PID3/AAR

Purge Volume: 5.0 mL
Dilution Factor: 1.00

CAS Number	Analyte	RL	Result
71-43-2	Benzene	1.0	< 1.0 U
108-88-3	Toluene	1.0	< 1.0 U
100-41-4	Ethylbenzene	1.0	< 1.0 U
179601-23-1	m,p-Xylene	1.0	< 1.0 U
95-47-6	o-Xylene	1.0	< 1.0 U

			GAS ID
Gasoline Range Hydrocarbons	0.25	< 0.25 U	---

BETX Surrogate Recovery

Trifluorotoluene	97.2%
Bromobenzene	98.5%

Gasoline Surrogate Recovery

Trifluorotoluene	101%
Bromobenzene	102%

BETX values reported in µg/L (ppb)
Gasoline values reported in mg/L (ppm)

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

Instrument/Det: PID3.I/RTX 502-2 FID Project: LORA LAKES RI

Calibration Date: 28-JUL-2010 SDG No.: RG51

Gas Range	RF1 0.1	RF2 0.25	RF3 1.0	RF4 2.5	RF5 5.0	RF6 20	Ave RF	%RSD
WA Gas	1009250	772696	761867	782843	800745	839442	827807	11.2
AK Gas	1342560	1066876	1050254	1042480	1063396	1225137	1131784	10.9
NW Gas	1102210	829838	811111	828987	844316	875713	882029	12.5
8015Gas	1959390	1600162	1564234	1551602	1571254	1738000	1664107	9.6
$TFT(Surr)	78.13636	73.54545	71.97015	70.35000	70.48120	69.03933		
	70.30000						71.97607	4.271
$BB(Surr)	48.72727	43.22727	42.49254	41.18000	42.06767	41.53933		
	42.23000						43.06630	5.994

<- Indicates %RSD outside limits
Surrogate areas are not included in RF calculation.

Quant Ranges : WA Gas Toluene - nC12
AK Gas nC6 - nC10
NW Gas Toluene - Naphthalene
8015 Gas 2-Methylpentane - 1,2,4-Trimethylbenzene

Calibration Files	Analysis Time
0728a012.d	28-JUL-2010 11:42
0728a004.d	28-JUL-2010 08:07
0728a005.d	28-JUL-2010 08:31
0728a006.d	28-JUL-2010 08:56
0728a007.d	28-JUL-2010 09:20
0728a008.d	28-JUL-2010 09:45

Surr Calibration Files	Analysis Time
0629a005.d	29-JUN-2010 07:59
0629a006.d	29-JUN-2010 08:24
0629a007.d	29-JUN-2010 08:48
0629a008.d	29-JUN-2010 09:12
0629a009.d	29-JUN-2010 09:37
0629a010.d	29-JUN-2010 10:01
0629a011.d	29-JUN-2010 10:26

BETX INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51 Project No.: LORA LAKES RI

Instrument/Det: PID3 /RTX 502-2 PID Calibration Date: 06/29/10

COMPOUND	CALIBRATION FACTORS 0.25	0.5	5	25	50	MEAN	%RSD
Benzene	1564	1462	1257	1240	1256		
Toluene	1608	1252	1288	1275	1275		
Ethylbenzene	1404	1420	1164	1185	1190		
M/P-Xylene	1614	1381	1314	1300	1302		
O-Xylene	1352	1232	1295	1269	1282		
MTBE	464	288	367	346	348		
TFT(Surr)	243	220	213	214	217		
BB(Surr)	496	451	434	440	456		

Calibration Files

/chem3/pid3.i/20100629-1.b/0629a005.d
/chem3/pid3.i/20100629-1.b/0629a006.d
/chem3/pid3.i/20100629-1.b/0629a007.d
/chem3/pid3.i/20100629-1.b/0629a008.d
/chem3/pid3.i/20100629-1.b/0629a009.d
/chem3/pid3.i/20100629-1.b/0629a010.d
/chem3/pid3.i/20100629-1.b/0629a011.d

BETX INITIAL CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51 Project No.: LORA LAKES RI

Instrument/Det: PID3 /RTX 502-2 PID Calibration Date: 06/29/10

	CALIBRATION FACTORS						
COMPOUND	100	200	MEAN	%RSD			
Benzene	1220	1254	1322	10.16			
Toluene	1247	1294	1320	9.72			
Ethylbenzene	1152	1183	1242	9.38			
M/P-Xylene	1247	1268	1346	9.29			
O-Xylene	1256	1307	1285	3.02			
MTBE	334	343	356	15.04			
TFT(Surr)	212	219	220	4.94			
BB(Surr)	450	463	456	4.41			

FORM VI BETX-2

BETX CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51 Project No.: LORA LAKES RI

Instrument/Det: PID3/RTX 502-2 PID Calibration Date: 08/04/10

Init. Calib. Date(s): 06/29/10 Calib. File: 0804A002.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Benzene	7.69	7.62	7.76	26.62	25.00	6.5
Toluene	10.27	10.20	10.34	26.83	25.00	7.3
Ethylbenzene	12.80	12.73	12.87	26.15	25.00	4.6
M/P-Xylene	12.94	12.87	13.01	52.69	50.00	5.4
O-Xylene	13.72	13.67	13.77	26.66	25.00	6.6
MTBE	5.29	5.22	5.36	27.16	25.00	8.6
TFT(Surr)	8.41	8.34	8.48	102.5	100.0	2.5
BB(Surr)	14.89	14.82	14.96	102.3	100.0	2.3

FORM VII BETX

BETX CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51 Project No.: LORA LAKES RI

Instrument/Det: PID3/RTX 502-2 PID Calibration Date: 08/04/10

Init. Calib. Date(s): 06/29/10 Calib. File: 0804A013.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Benzene	7.71	7.62	7.76	26.54	25.00	6.2
Toluene	10.30	10.20	10.34	26.10	25.00	4.4
Ethylbenzene	12.77	12.73	12.87	28.43	25.00	13.7
M/P-Xylene	12.98	12.87	13.01	50.03	50.00	0.1
O-Xylene	13.76	13.67	13.77	25.75	25.00	3.0
MTBE	5.30	5.22	5.36	27.73	25.00	10.9
TFT(Surr)	8.44	8.34	8.48	95.95	100.0	-4.0
BB(Surr)	14.91	14.82	14.96	98.12	100.0	-1.9

FORM VII BETX

BETX CALIBRATION VERIFICATION SUMMARY

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51 Project No.: LORA LAKES RI

Instrument/Det: PID3/RTX 502-2 PID Calibration Date: 08/04/10

Init. Calib. Date(s): 06/29/10 Calib. File: 0804A025.D

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Benzene	7.72	7.62	7.76	25.61	25.00	2.4
Toluene	10.31	10.20	10.34	24.80	25.00	-0.8
Ethylbenzene	12.77	12.73	12.87	27.52	25.00	10.1
M/P-Xylene	12.98	12.87	13.01	48.26	50.00	-3.5
O-Xylene	13.76	13.67	13.77	24.93	25.00	-0.3
MTBE	5.30	5.22	5.36	26.05	25.00	4.2
TFT(Surr)	8.44	8.34	8.48	95.86	100.0	-4.1
BB(Surr)	14.91	14.82	14.96	100.3	100.0	0.3

FORM VII BETX

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: 20100804-2

ICal Date: 28-JUL-2010 Project: RT+BCAL 1

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a002.d Inst/Det: PID3.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	90534	106.5	100.0	6.5
Bromoflrbenz	38262	105.9	100.0	5.9

7a

GAS CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a003.d Inst/Det: PID3.I/RTX 502-2 FID

Gas Range	Area*	CalcAmnt	NomAmnt	%D
WAGas (Tol-C12)	2055103	2.48	2.50	-0.7
AKGas (C6-C10)	2742036	2.42	2.50	-3.1
NWGas (Tol-Nap)	2186971	2.48	2.50	-0.8
8015B (2MP-TMB)	4082097	2.45	2.50	-1.9

* Surrogate areas are subtracted from Total Area
<- Indicates an RPD outside QC limits

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a003.d Inst/Det: PID3.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	92562	107.2	100.0	7.2
Bromoflrbenz	38397	106.8	100.0	6.8

GAS CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a012.d Inst/Det: PID3.I/RTX 502-2 FID

Gas Range	Area*	CalcAmnt	NomAmnt	%D
WAGas (Tol-C12)	1971286	2.38	2.50	-4.7
AKGas (C6-C10)	2621508	2.32	2.50	-7.3
NWGas (Tol-Nap)	2088846	2.37	2.50	-5.3
8015B (2MP-TMB)	3899854	2.34	2.50	-6.3

* Surrogate areas are subtracted from Total Area
<- Indicates an RPD outside QC limits

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a012.d Inst/Det: PID3.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	91748	106.8	100.0	6.8
Bromoflrbenz	38053	107.2	100.0	7.2

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a013.d Inst/Det: PID3.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	84452	98.9	100.0	-1.1
Bromoflrbenz	35491	99.8	100.0	-0.2

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a025.d Inst/Det: PID3.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	84251	99.8	100.0	-0.2
Bromoflrbenz	35482	103.4	100.0	3.4

7a

GAS CONTINUING CALIBRATION VERIFICATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a026.d Inst/Det: PID3.I/RTX 502-2 FID

Gas Range	Area*	CalcAmnt	NomAmnt	%D
WAGas (Tol-C12)	1870121	2.26	2.50	-9.6
AKGas (C6-C10)	2468254	2.18	2.50	-12.8
NWGas (Tol-Nap)	1976344	2.24	2.50	-10.4
8015B (2MP-TMB)	3692270	2.22	2.50	-11.2

* Surrogate areas are subtracted from Total Area
<- Indicates an RPD outside QC limits

7b
FID SURROGATE CONTINUING CALIBRATION

Lab Name: ANALYTICAL RESOURCES, INC. Client: FLOYD/SNIDER

ICal Date: 28-JUL-2010 Project: LORA LAKES RI

CCal Date: 04-AUG-2010 SDG No.: RG51

Lab File Name: 0804a026.d Inst/Det: PID3.I/RTX 502-2 FID

Surrogate	Area	CalcAmnt	NomAmnt	RPD
Trifluorotol	87012	101.7	100.0	1.7
Bromoflrbenz	37444	102.4	100.0	2.4

BETX/GAS ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG60-RG54 Project: LORA LAKE

Instrument ID: PID3 GC Detector: RTX 502-2 PID

Run Date: 06/29/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 8.44 S2 : 14.91

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	S1 #	S2 RT	S2 #
01		RINSE	06/29/10	0548				
02		RT+BCAL 1	06/29/10	0613	8.42		14.90	
03		GCAL 1	06/29/10	0637	8.43		14.91	
04		RINSE	06/29/10	0735				
05		BETX .25	06/29/10	0759	8.42		14.89	
06		BETX .5	06/29/10	0824	8.43		14.90	
07		BETX 5	06/29/10	0848	8.43		14.91	
08		BETX 25	06/29/10	0912	8.44		14.91	
09		BETX 50	06/29/10	0937	8.44		14.91	
10		BETX 100	06/29/10	1001	8.44		14.91	
11		BETX 200	06/29/10	1026	8.44		14.91	
12		BETX ICV	06/29/10	1050	8.44		14.91	
13		GCAL 2	06/29/10	1145	8.37		14.87	
14		LCS0629	06/29/10	1210	8.42		14.89	
15		LCSD0629	06/29/10	1234	8.43		14.90	
16		MB0629	06/29/10	1259	8.43		14.91	
17	ZZZZZ	ZZZZZ	06/29/10	1344	8.38		14.88	
18	ZZZZZ	ZZZZZ	06/29/10	1408	8.42		14.90	
19	ZZZZZ	ZZZZZ	06/29/10	1433	8.43		14.90	
20	ZZZZZ	ZZZZZ	06/29/10	1458	8.43		14.91	
21	ZZZZZ	ZZZZZ	06/29/10	1522	8.43		14.91	
22	ZZZZZ	ZZZZZ	06/29/10	1547	8.44		14.91	
23	ZZZZZ	ZZZZZ	06/29/10	1611	8.44		14.91	
24		RINSE	06/29/10	1636				
25		BCAL 3	06/29/10	1700	8.44		14.91	
26		GCAL 2	06/29/10	1725	8.44		14.91	

QC LIMITS

S1 = TFT(Surr) (+/- 0.07 MINUTES)
S2 = BB(Surr) (+/- 0.07 MINUTES)

* Values outside of QC limits.

BETX/GAS ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG60-RG54 Project: LORA LAKE

Instrument ID: PID3 GC Detector: RTX 502-2 FID

Run Date: 07/28/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

METHOD SURROGATE RT
S1 : 8.44 S2 : 14.91

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	S2 RT #
01		ZZZZZ	07/28/10	0653		14.86
02		RT+BCAL 1	07/28/10	0718	8.41	14.89
03		ZZZZZ	07/28/10	0742	8.43	14.90
04		GAS .25	07/28/10	0807	8.43	14.91
05		GAS 1	07/28/10	0831	8.44	14.91
06		GAS 2.5	07/28/10	0856	8.44	14.91
07		GAS 5	07/28/10	0920	8.44	14.91
08		GAS 20	07/28/10	0945	8.44	14.91
09		ZZZZZ	07/28/10	1009		14.84
10		GAS ICV	07/28/10	1034	8.44	14.91
11		ZZZZZ	07/28/10	1117		14.93
12		GAS .1	07/28/10	1142	8.43	14.90

QC LIMITS

S1 = TFT(Surr) (+/- 0.07 MINUTES)
S2 = BB(Surr) (+/- 0.07 MINUTES)

* Values outside of QC limits.

TPH ANALYTICAL SEQUENCE

Lab Name: ANALYTICAL RESOURCES, INC Client: FLOYD/SNIDER

SDG No.: RG51 Project: LORA LAKES RI

Instrument ID: PID3 GC Column: RTX 502-2 FID

Run Date: 06/29/10

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, AND STANDARDS, IS GIVEN BELOW:

SURROGATE RT FROM DAILY STANDARD
S1 : 8.44 S2 : 14.91

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT	S1 #	S2 RT	S2 #
01	RT+BCAL 1	RT+BCAL 1	08/04/10	0658	8.41		14.89	
02	LORA LAKES R	GCAL 1	08/04/10	0723	8.42		14.90	
03	LCS0804S1	LCS0804	08/04/10	0747	8.44		14.91	
04	LCSD0804S1	LCSD0804	08/04/10	0811	8.44		14.91	
05	MB0804S1	MB0804	08/04/10	0836	8.44		14.91	
06	ZZZZZ	ZZZZZ	08/04/10	1112	8.42			
07	LORA LAKES R	GCAL 2	08/04/10	1136	8.44		14.91	
08	LORA LAKES R	BCAL 2	08/04/10	1201	8.44		14.91	
09	PSB12-TB	RG51H	08/04/10	1226	8.44		14.91	
10	PSB12-0-0.5-	RG51A	08/04/10	1250	8.44		14.91	
11	PSB12-1.5-2.	RG51B	08/04/10	1315	8.44		14.91	
12	PSB12-2-4-07	RG51C	08/04/10	1339	8.44		14.91	
13	PSB12-8-10-0	RG51D	08/04/10	1404	8.44		14.91	
14	PSB12-8-10-0	RG51E	08/04/10	1429	8.44		14.91	
15	PSB12-14-17-	RG51F	08/04/10	1454	8.44		14.91	
16	PSB12-14-17-	RG51FMS	08/04/10	1518	8.44		14.91	
17	PSB12-14-17-	RG51FMSD	08/04/10	1543	8.44		14.91	
18	PSB12-4-6-07	RG51G	08/04/10	1608	8.44		14.91	
19	ZZZZZ	ZZZZZ	08/04/10	1632				
20	LORA LAKES R	BCAL3	08/04/10	1657	8.44		14.91	
21	LORA LAKES R	GCAL3	08/04/10	1722	8.44		14.91	

QC LIMITS

S1 = TFT(Surr) (+/- 0.07 MINUTES)

S2 = BB(Surr) (+/- 0.07 MINUTES)

* Values outside of QC limits.

FORM VIII TPH

Metals Analysis
Report and Summary QC Forms

ARI Job ID: RG51

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
PSB12-0-0.5-072810	RG51A	10-18183	
PSB12-0-0.5-072810D	RG51ADUP	10-18183	
PSB12-0-0.5-072810S	RG51ASPK	10-18183	
PSB12-1.5-2.0-0728	RG51B	10-18184	
PBS	RG51MB1	10-18184	
LCSS	RG51MB1SPK	10-18184	
LCSS	RG51REF1	10-18184	
PSB12-2-4-072810	RG51C	10-18185	
PSB12-8-10-072810	RG51D	10-18186	
PSB12-8-10-072810-	RG51E	10-18187	
PSB12-14-17-072810	RG51F	10-18188	
PSB12-4-6-072810	RG51G	10-18189	
PSB14-0-.5-072810	RG54A	10-18202	
PSB14-1.5-2.0-0728	RG54B	10-18203	
PSB14-2-4-072810	RG54C	10-18204	
PSB14-7-9-072810	RG54E	10-18206	
PSB14-12-14-072810	RG54F	10-18207	
PSB17-0-0.5-072810	RG54H	10-18209	
PSB17-1.5-2-072810	RG54I	10-18210	
PSB17-2-4-072810	RG54J	10-18211	
PSB17-4-6-072810	RG54K	10-18212	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 8/10/10 Title: Inorganic Manager

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
PSB17-10-13-072810	RG54L	10-18213	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 8/10/10 Title: Inorganic Manager

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-0-0.5-072810
SAMPLE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 90.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**11**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-1.5-2.0-072810
SAMPLE

Lab Sample ID: RG51B
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 94.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**9**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-2-4-072810
SAMPLE

Lab Sample ID: RG51C
LIMS ID: 10-18185
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 93.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**30**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-8-10-072810
SAMPLE

Lab Sample ID: RG51D
LIMS ID: 10-18186
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 94.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**4**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-8-10-072810-D
SAMPLE

Lab Sample ID: RG51E
LIMS ID: 10-18187
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 95.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-14-17-072810
SAMPLE

Lab Sample ID: RG51F
LIMS ID: 10-18188
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 91.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-4-6-072810
SAMPLE

Lab Sample ID: RG51G
LIMS ID: 10-18189
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Percent Total Solids: 91.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	**7439-92-1**	**Lead**	2	**47**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-0-0.5-072810
MATRIX SPIKE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010B	5 U	203	208	97.6%	
Lead	6010B	11	207	208	94.2%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: PSB12-0-0.5-072810
DUPLICATE

Lab Sample ID: RG51A
LIMS ID: 10-18183
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	6010B	5 U	5 U	0.0%	+/- 5	L
Lead	6010B	11	12	8.7%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: RG51LCS
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	6010B	209	200	104%	
Lead	6010B	203	200	102%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: RG51MB
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	08/03/10	6010B	08/06/10	7440-38-2	Arsenic	5	5	U
3050B	08/03/10	6010B	08/06/10	7439-92-1	Lead	2	2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: STD REFERENCE
ERA D053540

Lab Sample ID: RG51SRM
LIMS ID: 10-18184
Matrix: Soil
Data Release Authorized:
Reported: 08/10/10

QC Report No: RG51-Floyd/Snider
Project: Lora Lakes RI
POS-LLA
Date Sampled: NA
Date Received: NA

Analyte	Analysis Method	Analysis Date	mg/kg-dry	Certified Value	Advisory Range
Arsenic	6010B	08/06/10	137	132	106-157
Lead	6010B	08/06/10	129	130	106-154

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

UNITS: ug/L

SDG: RG51

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	ICP	IP080672	2000.0	2028.54	101.4	2000.0	2067.67	103.4	2068.32	103.4	2095.14	104.8	2102.32	105.1	2132.58	106.6
Lead	PB	ICP	IP080672	2000.0	2018.87	100.9	2000.0	2057.24	102.9	2058.28	102.9	2087.41	104.4	2086.28	104.3	2118.92	105.9

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	ICP	IP080672	2000.0	2141.27	107.1	2167.23	108.4	2020.94	101.0	2040.79	102.0	2103.30	105.2	2099.50	105.0
Lead	PB	ICP	IP080672	2000.0	2117.28	105.9	2141.82	107.1	1992.75	99.6	2028.27	101.4	2045.38	102.3	2052.03	102.6

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

UNITS:ug/L

SDG: RG51

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Arsenic	AS	ICP	IP080672	2000.0	2118.06	105.9										
Lead	PB	ICP	IP080672	2000.0	2047.62	102.4										

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Arsenic	AS	ICP	IP080672	50.0	50.76	**101.5**										
Lead	PB	ICP	IP080672	20.0	19.58	**97.9**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

UNITS: ug/L

SDG: RG51

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	ICP	IP080672	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	ICP	IP080672	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

RG51.00192

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	ICP	IP080672	10.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	ICP	IP080672	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

RG51, 091102

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Arsenic	AS	ICP	IP080672	10.0	50.0	50.0	U										
Lead	PB	ICP	IP080672	3.0	20.0	20.0	U										

RG51.6915

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

ICS SOURCE: I.V.

PROJECT: Lora Lakes RI

RUNID: IP080672

SDG: RG51

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	202056.2	205902.2	**103.0**						
Antimony		1000	25.6	1048.4	**104.8**						
Arsenic		1000	8.8	1017.9	**101.8**						
Barium		1000	1.6	1023.1	**102.3**						
Beryllium		1000	0.0	1003.6	**100.4**						
Boron			-5.9	-9.7							
Cadmium		1000	2.1	1054.6	**105.5**						
Calcium	100000	100000	100660.2	102199.6	**102.2**						
Chromium		1000	1.6	1039.0	**103.9**						
Cobalt		1000	-0.6	969.9	**97.0**						
Copper		1000	-1.5	1040.9	**104.1**						
Iron	200000	200000	196856.6	199851.6	**99.9**						
Lead		1000	-9.4	959.2	**95.9**						
Magnesium	100000	100000	99472.7	100801.5	**100.8**						
Manganese		1000	1.0	973.4	**97.3**						
Molybdenum			4.4	3.9							
Nickel		1000	2.2	962.7	**96.3**						
Potassium			13.3	-49.0							
Selenium		1000	45.7	1066.1	**106.6**						
Silicon			-18.0	-20.2							
Silver		1000	-1.0	1025.5	**102.6**						
Sodium			8.3	21.4							
Strontium			3.6	3.7							
Thallium		1000	10.2	974.0	**97.4**						
Tin			-10.3	-9.7							
Titanium			1.1	1.6							
Vanadium		1000	2.6	987.8	**98.8**						
Zinc		1000	-9.8	951.3	**95.1**						

RG51 : 69195

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Arsenic	AS	ICP	OPTIMA ICP 2	197.20		10	50.0	4/1/2010	30000.0	6/25/2010
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2010	300000.0	6/25/2010

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

IEC DATE: 6/25/2010

SDG: RG51

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	10.6345000	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0302010	0.0000000	-0.9445380	1.0514100	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0087705	0.0000000	-0.1163000	0.0000000	0.0000000	0.0917961
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	3.3930900	0.0000000	0.0000000	0.0000000	0.0000000	0.1261800	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5291320	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0000000	0.0000000	0.0194491	0.0000000	-0.0579845	0.0000000	0.0000000	-0.0470434
Cobalt	228.62	0.0000000	0.0000000	0.1846310	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0124726
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.2841270	-0.0424887	0.0000000	-0.0717000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.35	-0.1693720	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.9714800	1.2740100	0.0700135
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1319490	0.0000000	-1.9410900	-0.9247460	0.0000000	0.5007690
Manganese	257.61	0.0067696	0.0000000	0.0000000	0.0000000	0.0023349	0.0000000	0.0000000	0.0000000	0.0000000	-0.0051882
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0173285	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0679605	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5126200	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	-5.9937200	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	2.3133900	0.3288770	0.0000000	-0.1504990
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0462590	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0623399	0.0000000	0.0000000	0.1821360	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.1559900	0.0000000	0.1070520
Zinc	206.20	0.0279274	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3041290	0.0000000	0.0000000

RG51_0017

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

IEC DATE: 6/25/2010

SDG: RG51

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	10.5279000	0.0000000	0.0000000	0.0000000	2.3617300	0.0000000	18.6686000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3653530	0.0000000	0.0000000	-1.2842400	0.0000000	-3.1614700	0.0000000
Arsenic	188.98	0.0000000	0.0000000	1.5685300	0.0000000	0.0000000	0.0000000	-18.0910000	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1042590	0.0000000	0.0000000	0.0000000	0.0000000	0.5343320	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0111651	0.0000000	0.5182900	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.6501870	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.1304500	0.0000000	0.1655120	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2567570	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1920370	0.1791340	0.0000000	0.0000000	1.6866300	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0228258	0.0000000	0.7071800	0.0000000	0.0000000	0.0000000	0.3708110	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.3092800	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.3219480	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-3.4563100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2309750	0.0000000	0.0000000	0.0000000	-0.0245610	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7107260	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.1962650	0.1355340	0.0000000	0.0000000	0.0000000	-0.0347846	0.0000000	-0.2306430	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	275.8690000	0.0000000	0.0000000	238.7330000
Thallium	190.80	0.0000000	-0.9583370	-3.2391700	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.5566700	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.6349390	-0.4579360	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.2012000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1525300	-0.7369790	0.0000000	0.0000000	0.0000000	0.5819800	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2610670	0.0000000	-0.0597607	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

RG51_6010

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 8/3/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
PSB12-0-0.5-072810	RG51A	1.064	0.0	50.0
PSB12-0-0.5-072810D	RG51ADUP	1.069	0.0	50.0
PSB12-0-0.5-072810S	RG51ASPK	1.060	0.0	50.0
PSB12-1.5-2.0-0728	RG51B	1.054	0.0	50.0
PSB12-2-4-072810	RG51C	1.076	0.0	50.0
PSB12-8-10-072810	RG51D	1.089	0.0	50.0
PSB12-8-10-072810-	RG51E	1.005	0.0	50.0
PSB12-14-17-072810	RG51F	1.074	0.0	50.0
PSB12-4-6-072810	RG51G	1.033	0.0	50.0
PBS	RG51MB1	1.000	0.0	50.0
LCSS	RG51MB1SPK	1.000	0.0	50.0
LCSS	RG51REF1	1.009	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI

SDG: RG51

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 8/3/2010

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
PSB14-0-.5-072810	RG54A	1.080	0.0	50.0
PSB14-1.5-2.0-0728	RG54B	1.030	0.0	50.0
PSB14-2-4-072810	RG54C	1.034	0.0	50.0
PSB14-7-9-072810	RG54E	1.088	0.0	50.0
PSB14-12-14-072810	RG54F	1.001	0.0	50.0
PSB17-0-0.5-072810	RG54H	1.045	0.0	50.0
PSB17-1.5-2-072810	RG54I	1.024	0.0	50.0
PSB17-2-4-072810	RG54J	1.044	0.0	50.0
PSB17-4-6-072810	RG54K	1.019	0.0	50.0
PSB17-10-13-072810	RG54L	1.055	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 8/6/2010

SDG: RG51 | RUNID: IP080672 | METHOD: ICP | END DATE: 8/6/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09161				X																	X									
S2	S2	1.00	09202																														
S3	S3	1.00	09222				X																	X									
S4	S4	1.00	09245																														
S5	S5	1.00	09270																														
ICV	ICV	1.00	09295				X																	X									
ICB	ICB	1.00	09340				X																	X									
CRI	CRII	1.00	09380				X																	X									
ICSA	ICSAI	1.00	09421				X																	X									
ICSAB	ICSABI	1.00	09462				X																	X									
CCV	CCV1	1.00	09500				X																	X									
CCB	CCB1	1.00	09542				X																	X									
ZZZZZZ	RF71MB1	2.00	09581																														
ZZZZZZ	RG11MB1	2.00	10022																														
ZZZZZZ	RG11A	2.00	10063																														
ZZZZZZ	RF71ADUP	2.00	10102																														
ZZZZZZ	RF71A	2.00	10141																														
ZZZZZZ	RF71ASPK	2.00	10181																														
ZZZZZZ	RF71APOST	2.00	10215																														
ZZZZZZ	RF71MB1SPK	2.00	10254																														
ZZZZZZ	RG11MB1SPK	2.00	10295																														
ZZZZZZ	RG11MB1SPD	2.00	10340																														
CCV	CCV2	1.00	10381				X																	X									
CCB	CCB2	1.00	10422				X																	X									
S2	S2	1.00	10484																														
S5	S5	1.00	10503																														
CCV	CCV3	1.00	10534				X																	X									
CCB	CCB3	1.00	10575				X																	X									
ZZZZZZ	RG30MB1	1.00	11020																														
ZZZZZZ	RG30F	1.00	11060																														
ZZZZZZ	RG30G	1.00	11101																														
ZZZZZZ	RG30H	1.00	11142																														
ZZZZZZ	RG30ADUP	1.00	11183																														
ZZZZZZ	RG30A	1.00	11225																														
ZZZZZZ	RG30ASPK	1.00	11270																														

FORM XIV

RG51_0029

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 8/6/2010

SDG: RG51 | RUNID: IP080672 | METHOD: ICP | END DATE: 8/6/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	RG30MB1SPK	1.00	11311																														
CCV	CCV4	1.00	11352				X																	X									
CCB	CCB4	1.00	11393				X																	X									
ZZZZZZ	RF71MB1	2.00	11433																														
ZZZZZZ	RG11MB1	2.00	11474																														
ZZZZZZ	RG11A	5.00	11514																														
ZZZZZZ	RF71ADUP	2.00	11554																														
ZZZZZZ	RF71A	2.00	11593																														
ZZZZZZ	RF71ASPK	2.00	12033																														
ZZZZZZ	ZZZZZZ	2.00	12071																														
ZZZZZZ	RF71MB1SPK	2.00	12111																														
ZZZZZZ	RG11MB1SPK	2.00	12152																														
ZZZZZZ	RG11MB1SPD	2.00	12193																														
CCV	CCV5	1.00	12234				X																	X									
CCB	CCB5	1.00	12275				X																	X									
ZZZZZZ	RG84D	10.00	12320																														
ZZZZZZ	RG84G	10.00	12360																														
ZZZZZZ	RG84H	2.00	12400																														
ZZZZZZ	RG84I	2.00	12434																														
ZZZZZZ	RG84J	2.00	12472																														
ZZZZZZ	RG84K	2.00	12510																														
ZZZZZZ	RG84ADUP	20.00	12545																														
ZZZZZZ	DIL	1.00	12590																														
ZZZZZZ	RG84A	20.00	13031																														
ZZZZZZ	RG84ASPK	20.00	13070																														
CCV	CCV6	1.00	13110				X																	X									
CCB	CCB6	1.00	13151				X																	X									
ZZZZZZ	RG83MB	5.00	13192																														
ZZZZZZ	RG83ADUP	5.00	13234																														
ZZZZZZ	RG83A	5.00	13275																														
ZZZZZZ	RG83ASPK	5.00	13320																														
PSB17-4-6-072810	RG54K	2.00	13362				X																	X									
PSB17-10-13-072810	RG54L	2.00	13400				X																	X									
CCV	CCV7	1.00	13440				X																	X									
CCB	CCB7	1.00	13481				X																	X									

FORM XIV

RG51_080202

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI　　INSTRUMENT ID: OPTIMA ICP 2　　START DATE: 8/6/2010

SDG: RG51　　RUNID: IP080672　　METHOD: ICP　　END DATE: 8/6/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S3	S3	1.00	13521				X																	X									
CCV	CCV8	1.00	13575				X																	X									
CCB	CCB8	1.00	14020				X																	X									
ZZZZZZ	RG84D	10.00	14061																														
ZZZZZZ	RG84G	10.00	14101																														
ZZZZZZ	RG84H	2.00	14141																														
ZZZZZZ	RG84I	2.00	14180																														
ZZZZZZ	RG84J	2.00	14215																														
ZZZZZZ	RG84K	2.00	14253																														
ZZZZZZ	RG84A	20.00	14293																														
ZZZZZZ	RG84ASPK	20.00	14332																														
ZZZZZZ	RG84ADUP	20.00	14372																														
ZZZZZZ	DIL	1.00	14413																														
CCV	CCV9	1.00	14454				X																	X									
CCB	CCB9	1.00	14500				X																	X									
PBS	RG51MB1	2.00	14535				X																	X									
PSB12-1.5-2.0-0728	RG51B	2.00	14575				X																	X									
PSB12-2-4-072810	RG51C	2.00	15013				X																	X									
PSB12-8-10-072810	RG51D	2.00	15053				X																	X									
PSB12-0-0.5-072810D	RG51ADUP	2.00	15091				X																	X									
PSB12-0-0.5-072810	RG51A	2.00	15130				X																	X									
PSB12-0-0.5-072810S	RG51ASPK	2.00	15170				X																	X									
ZZZZZZ	ZZZZZZ	2.00	15205																														
LCSS	RG51REF1	2.00	15243				X																	X									
LCSS	RG51MB1SPK	2.00	15281				X																	X									
CCV	CCV10	1.00	15322				X																	X									
CCB	CCB10	1.00	15364				X																	X									
PSB12-14-17-072810	RG51F	2.00	15403				X																	X									
PSB12-4-6-072810	RG51G	2.00	15442				X																	X									
PSB14-0-.5-072810	RG54A	2.00	15480				X																	X									
PSB14-1.5-2.0-0728	RG54B	2.00	15520				X																	X									
PSB14-2-4-072810	RG54C	2.00	15554				X																	X									
PSB14-7-9-072810	RG54E	2.00	15592				X																	X									
PSB14-12-14-072810	RG54F	2.00	16030				X																	X									
PSB17-0-0.5-072810	RG54H	2.00	16065				X																	X									

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Floyd/Snider

PROJECT: Lora Lakes RI | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 8/6/2010

SDG: RG51 | RUNID: IP080672 | METHOD: ICP | END DATE: 8/6/2010

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
PSB17-1.5-2-072810	RG54I	2.00	16104				X																	X									
PSB17-2-4-072810	RG54J	2.00	16143				X																	X									
CCV	CCV11	1.00	16181				X																	X									
CCB	CCB11	1.00	16222				X																	X									
ZZZZZZ	RG42MB	2.00	16263																														
PSB12-8-10-072810-	RG51E	2.00	16302				X																	X									
ZZZZZZ	RG42A	2.00	16342																														
ZZZZZZ	RG42B	2.00	16383																														
ZZZZZZ	RG42C	2.00	16423																														
ZZZZZZ	RG42D	2.00	16463																														
ZZZZZZ	RG42E	2.00	16504																														
ZZZZZZ	RG47A	5.00	16543																														
ZZZZZZ	RG47MBSPK	2.00	16583																														
ZZZZZZ	RG42MBSPK	2.00	17024																														
CCV	CCV12	1.00	17065				X																	X									
CCB	CCB12	1.00	17111				X																	X									

RG51.06201

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: RG51

SAMPLE RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Client ID: PSB12-8-10-072810
ARI ID: 10-18186 RG51D

Analyte	Date	Method	Units	RL	Sample
Total Solids	07/30/10 073010#1	EPA 160.3	Percent	0.01	95.20
Total Organic Carbon	08/09/10 080910#1	Plumb,1981	Percent	0.020	0.413

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Client ID: PSB12-8-10-072810-D
ARI ID: 10-18187 RG51E

Analyte	Date	Method	Units	RL	Sample
Total Solids	07/30/10 073010#1	EPA 160.3	Percent	0.01	95.50
Total Organic Carbon	08/09/10 080910#1	Plumb,1981	Percent	0.020	0.377

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Client ID: PSB12-14-17-072810
ARI ID: 10-18188 RG51F

Analyte	Date	Method	Units	RL	Sample
Total Solids	07/30/10 073010#1	EPA 160.3	Percent	0.01	92.50
Total Organic Carbon	08/09/10 080910#1	Plumb,1981	Percent	0.020	0.280

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: RG51F Client ID: PSB12-14-17-072810						
Total Organic Carbon	08/09/10	Percent	0.280	1.06	0.851	91.7%

REPLICATE RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: 07/28/10
Date Received: 07/28/10

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: RG51F Client ID: PSB12-14-17-072810					
Total Solids	07/30/10	Percent	92.50	91.80 91.60	0.5%
Total Organic Carbon	08/09/10	Percent	0.280	0.311 0.339	9.5%

LAB CONTROL RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	08/09/10	Percent	0.095	0.100	95.0%

METHOD BLANK RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	07/30/10	Percent	< 0.01 U
Total Organic Carbon	08/09/10	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
RG51-Floyd/Snider

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 08/11/10

Project: Lora Lakes RI
Event: POS-LLA
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST #8704	08/09/10	Percent	3.32	3.35	99.1%

Total Solids

ARI Job ID: RG51

Volatiles Total Solids-voats
Data By: Pat Basilio
Created: 8/ 5/10

Worklist: 33
Analyst: PAB
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

ARI ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids
1. RG51A 10-18183				$ 90.90
2. RG51B 10-18184				$ 94.10
3. RG51C 10-18185				$ 93.30
4. RG51D 10-18186				$ 95.40
5. RG51E 10-18187				$ 95.40
6. RG51F 10-18188				$ 95.30
7. RG51G 10-18189				$ 91.60

* - VOA TS Copied From BETX TS
% - VOA TS Copied From Metals TS
$ - VOA TS Copied From Extraction TS

BETX/TPHG Total Solids-betxts
Data By: Aron A. Rigg
Created: 8/ 9/10

Worklist: 1176
Analyst: AAR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

ARI ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids
1. RG51A 10-18183				* 90.9
2. RG51B 10-18184				* 94.1
3. RG51C 10-18185				* 93.3
4. RG51D 10-18186				* 95.4
5. RG51E 10-18187				* 95.4
6. RG51F 10-18188				* 95.3
7. RG51G 10-18189				* 91.6

Worklist ID: 1176 Page: 1
* - BETX TS Copied From VOA TS
% - BETX TS Copied From Metals TS
$ - BETX TS Copied From Extraction TS

RG51 : 00216
AR 8/9/2010

Extractions Total Solids-extts
Data By: Adam L. Rains
Created: 8/ 3/10

Worklist: 8677
Analyst: RVR
Comments:

Oven ID:_____

Balance ID:_____

Samples In: Date:_____ Time:_____ Temp:_____ Analyst:_____

Samples Out: Date:_____ Time:_____ Temp:_____ Analyst:_____

	ARI ID CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	RG51A 10-18183 PSB12-0-0.5-072810	1.17	10.26	9.43	90.9	NR
2.	RG51B 10-18184 PSB12-1.5-2.0-072810	1.17	10.56	10.01	94.1	NR
3.	RG51C 10-18185 PSB12-2-4-072810	1.16	11.12	10.45	93.3	NR
4.	RG51D 10-18186 PSB12-8-10-072810	1.16	10.47	10.04	95.4	NR
5.	RG51E 10-18187 PSB12-8-10-072810-D	1.16	10.75	10.31	95.4	NR
6.	RG51F 10-18188 PSB12-14-17-072810	1.17	11.50	11.01	95.3	NR
7.	RG51G 10-18189 PSB12-4-6-072810	1.18	10.45	9.67	91.6	NR

Extractions Total Solids-extts
Data By: Adam L. Rains
Created: 8/ 3/10

Worklist: 8677
Analyst: ALR
Comments:

Oven ID: 015

Balance ID: 21754520

Samples In: Date: 08/03/10 Time: 09:00 Temp: 105°C Analyst: RC

Samples Out: Date: 08/4/10 Time: 06:25 Temp: 100° Analyst: RR

	ARI ID / CLIENT ID	Tare Wt (g)	Wet Wt (g)	Dry Wt (g)	% Solids	pH
1.	RG51A 10-18183 PSB12-0-0.5-072810	1.17	10.26	9.43		NR
2.	RG51B 10-18184 PSB12-1.5-2.0-072810	1.17	10.56	10.01		NR
3.	RG51C 10-18185 PSB12-2-4-072810	1.16	11.12	10.45		NR
4.	RG51D 10-18186 PSB12-8-10-072810	1.16	10.47	~~9.89~~ 10.04 RR8/4/10		NR
5.	RG51E 10-18187 PSB12-8-10-072810-D	1.16	10.75	10.31		NR
6.	RG51F 10-18188 PSB12-14-17-072810	1.17	11.50	11.01		NR
7.	RG51G 10-18189 PSB12-4-6-072810	1.18	10.45	9.67		NR

Solids Data Entry Report Checked by: DM Date: 8/4/10
Date: 08/04/10 Data Analyst: KM

Solids Determination performed on 08/03/10 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
RG51	A	PSB12-0-0.5-072810	0.989	10.526	9.649	90.80
RG51	B	PSB12-1.5-2.0-07281	0.971	10.487	9.982	94.69
RG51	C	PSB12-2-4-072810	0.985	10.417	9.781	93.26
RG51	D	PSB12-8-10-072810	0.967	10.366	9.877	94.80
RG51	E	PSB12-8-10-072810-D	0.972	10.923	10.448	95.23
RG51	F	PSB12-14-17-072810	0.997	10.618	9.833	91.84
RG51	G	PSB12-4-6-072810	0.980	10.030	9.272	91.62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 8-03-10 Time: 1840 Temp: 104°C Analyst: DM

Removed from Oven: Date: 8-04-10 Time: 1005 Temp: 101°C Analyst: MH

Source of Total Solids Data If From A Different Lab: —

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
RH00	A	0.986	10.347	9.745	—	✓
"	B	0.982	10.608	10.049	—	✓
"	C	0.946	10.741	10.088	—	✓
RG60	A	0.965	10.615	10.026	—	✓
"	B	0.981	10.095	9.394	—	✓
"	C	0.986	10.568	9.834	—	✓
"	D	1.006	10.482	9.444	—	✓
"	E	0.957	10.534	9.620	—	✓
"	F	0.958	10.671	9.614	—	✓
RG51	A	0.989	10.526	9.649	—	✓
"	B	0.971	10.487	9.982	—	✓
"	C	0.985	10.417	9.781	—	✓
"	D	0.967	10.366	9.877	—	✓
"	E	0.972	10.923	10.448	—	✓
"	F	0.997	10.618	9.833	—	✓
"	G	0.980	10.030	9.272	—	✓
			8-3-10 DM			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

RG51 : 00220

Volatile Raw Data
Preparation Log

ARI Job ID: RG51

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Volatile Organics Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No. RG51 | Client ID/Project | Extraction Date | MeOH Lot No. | Analyst

1st Extraction: | 2nd Extraction: MB 8/3/11

	Lab ID	Vial No.	Preservative		Method 5035 Sample Weight					Comments
			$NaHSO_3$	CH_3OH	Vial Weight	Tare (from vial)	Sample Weight	Extract Volume	MeOH Spilt Volume	
	MB:									
	LCS:									
	LCSD:									
1	RG51 D	4	✓		35.48	31.372	7.108			
2	E	5	✓		38.01	31.373	6.627			
3	F	15	✓		40.49	31.172	9.318			
4	G	Y	✓		40.97	31.12	9.849			
5	H	2	✓				5mL			
6	Emb	12	✓		44.85	35.29	9.56			
7	Emb	14	✓		45.08	35.43	9.65			
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
	Balance ID:									

	Solution ID	Concentration	Amount Spiked	Analyst	Witness
Surrogate:					
Spike:					

RG51 : 080222

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Volatile Organics Extraction Bench Sheet

(8260B, 8260B-SIM, 8021, NWTPH-Gx, AK-101, TPH-G, VPH, TCLP-ZHE)

ARI Project No. RG51 | Client ID/Project | Extraction Date | MeOH Lot No. | Analyst

1st Extraction: 11/8/24

2nd Extraction:

	Lab ID	Vial No.	Preservative		Method 5035 Sample Weight					Comments
			$NaHSO_3$	CH_3OH	Vial Weight	Tare (from vial)	Sample Weight	Extract Volume	MeOH Spilt Volume	
	MB:									
	LCS:									
	LCSD:									
1	RG51 A	5	—		40.53	31.256	9.274			
2	B	4	—		39.05	31.261	7.789			
3	C	3	—		41.49	31.233	10.257			
4	D	5	—		37.54	31.408	6.132			
5	E	6	—		38.51	30.686	7.824			
6	F	21	—		42.83	31.206	11.624			
7	G	9	—		40.89	31.125	9.765			
8	H	3	—		11/8/24	~~31.162~~	5mL			
9	Extra 20		—		39.87	~~31.70~~ 31.162	8.708			
10	Extra 19		—		41.15	31.206	9.944			
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
	Balance ID:									

	Solution ID	Concentration	Amount Spiked	Analyst	Witness
Surrogate:					
Spike:					

RG51 : 092225

Volatile Raw Data
Initial Calibration Notes and Raw Data

ARI Job ID: RG51

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: F5 ical Client ID: _____

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): _____

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 7/23/10 Analysis Start Date: 7/23/10

pH ≤ 2.0	YES / NO / NA	Method Blank In Control?	YES / NO
BFB Tune Meets Criteria?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Surrogate Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO / NA	Q flag applied?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes /NO
Special Analysis Criteria Met?	YES / NO / NA		

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

ICV - bromoethane 124.8%R
1,2,4 TCB 75%R
1,2,3 TCB 76.7%R

all analytes averaged

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 7/29/10

Reviewer: _____ **Date:** 7/29/10

Analytical Resources Inc.: Organics Instrument Log

FINN5 Serial No.: 5500-000421A

Date: 7/23/10 Analysis: 8260C Analyst: KT

GC Program: F5 Column No: 822724 Column Type: RTX-502.2

Instrument Tune (.U or .CT.): DFB0723 EM Voltage: 1549

Calibration File: 2000723 Curve Date: 7/23/10

IS/SS	Ical/Ccal	LCS/ICV
W644-4	W646-2	W647-1
	W646-3	~~W647-~~ KT 7/26/10

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/finn5.i/23JUL10.b

	Time	Filename	LabID	ClientID	WT						
1	0837	BFB0723.d	BFB0723	BFB0723	0.00						
2	1648	BFB07231.d	BFB0723	BFB0723	0.00						
3	1718	2000723.d	IC0723	VSTD200	5.00 | 6.62	159149|| 7.64	229095||10.79	171495||13.47	145587|		
4	1749	1500723.d	IC0723	VSTD150	5.00 | 6.62	155784|| 7.64	228573||10.78	178614||13.47	122904|		
5	1816	1000723.d	IC0723	VSTD100	5.00 | 6.62	135334|| 7.64	199732||10.78	160631||13.47	96340|		
6	1842	0500723.d	IC0723	VSTD050	5.00 | 6.62	131115|| 7.63	191559||10.78	161199||13.47	88279|		
7	1909	0100723.d	IC0723	VSTD010	5.00 | 6.62	118930|| 7.63	168271||10.78	140990||13.46	72150|		
8	1935	0050723.d	IC0723	VSTD005	5.00 | 6.62	117041|| 7.63	170929||10.78	146260||13.46	75761|		
9	2002	0020723.d	IC0723	VSTD002	5.00 | 6.62	125854|| 7.63	165926||10.78	143906||13.47	73251|		
10	2028	0010723.d	IC0723	VSTD001	5.00 | 6.61	113813|| 7.63	168346||10.77	142296||13.46	71616|		
11	2214	ICV0723.d	ICV0723	ICV0723	5.00 | 6.62	130699|| 7.64	194200||10.78	160989||13.47	90026|		

KT 7/26/10

Maintenance / Comments

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Data File: /chem1/finn5.i/23JUL10.b/BFB07231.d

Date : 23-JUL-2010 16:48

Client ID: BFB0723

Instrument: finn5.i

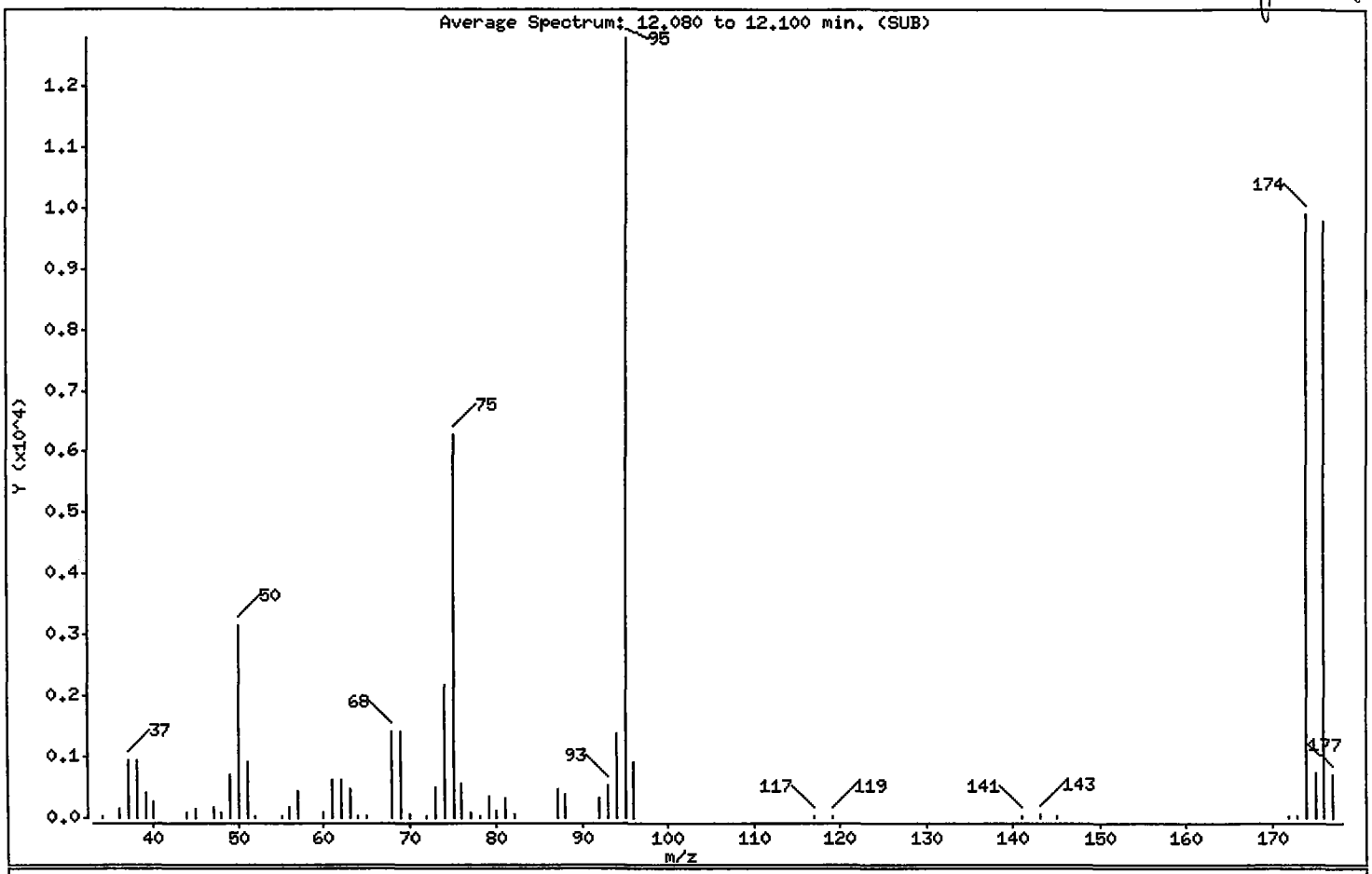
Sample Info: BFB0723,BFB0723,,1,23JUL10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	24.73
75	30.00 - 66.00% of mass 95	49.06
96	5.00 - 9.00% of mass 95	7.07
173	Less than 2.00% of mass 174	0.16 (0.21)
174	50.00 - 101.00% of mass 95	77.38
175	4.00 - 9.00% of mass 174	5.70 (7.37)
176	93.00 - 101.00% of mass 174	76.42 (98.77)
177	5.00 - 9.00% of mass 176	5.51 (7.21)

Data File: /chem1/finn5.i/23JUL10.b/BFB07231.d

Date : 23-JUL-2010 16:48

Client ID: BFB0723

Instrument: finn5.i

Sample Info: BFB0723,BFB0723,,1,23JUL10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

Data File: BFB07231.d
Spectrum: Average Spectrum: 12.080 to 12.100 min. (SUB)
Location of Maximum: 95.00
Number of points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34.00	41	55.00	28	74.00	2174	95.00	12792
36.00	159	56.00	184	75.00	6276	96.00	905
37.00	938	57.00	440	76.00	565	117.00	17
38.00	936	60.00	91	77.00	77	119.00	25
39.00	400	61.00	624	78.00	18	141.00	28
40.00	260	62.00	625	79.00	363	143.00	45
44.00	96	63.00	460	80.00	109	145.00	24
45.00	144	64.00	38	81.00	331	172.00	26
47.00	178	65.00	22	82.00	62	173.00	21
48.00	81	68.00	1416	87.00	469	174.00	9898
49.00	708	69.00	1407	88.00	387	175.00	729
50.00	3164	70.00	64	92.00	317	176.00	9776
51.00	905	72.00	18	93.00	542	177.00	705
52.00	33	73.00	511	94.00	1387		

Data File: /chem1/finn5.i/23JUL10.b/BFB07231.d

Date : 23-JUL-2010 16:48

Client ID: BFB0723

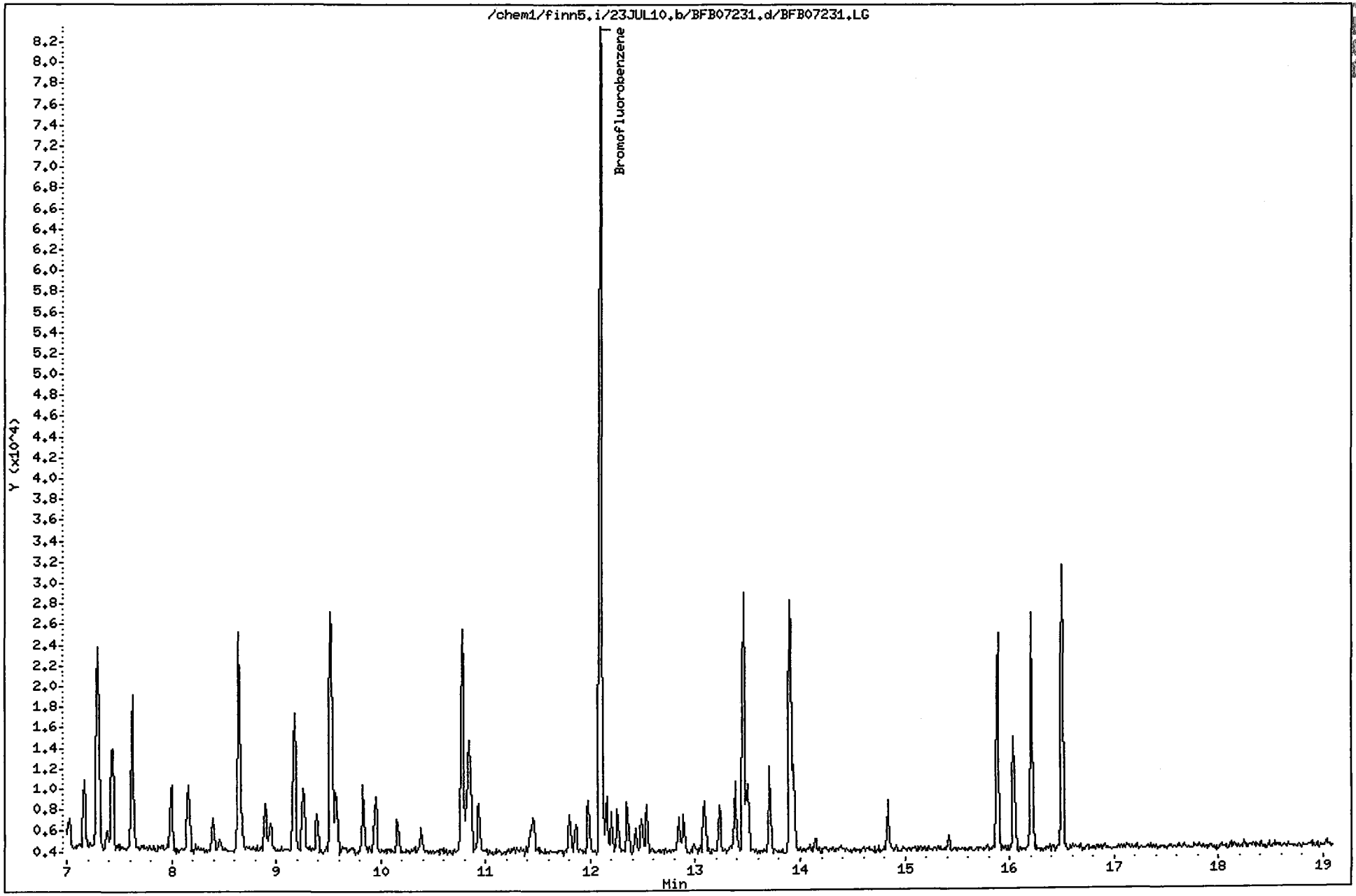
Sample Info: BFB0723,BFB0723,,1,23JUL10,,

Column phase: RTX502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18



Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Calibration File Names:
Level 1: /chem1/finn5.i/23JUL10.b/0010723.d
Level 2: /chem1/finn5.i/23JUL10.b/0020723.d
Level 3: /chem1/finn5.i/23JUL10.b/0050723.d
Level 4: /chem1/finn5.i/23JUL10.b/0100723.d
Level 5: /chem1/finn5.i/23JUL10.b/0500723.d
Level 6: /chem1/finn5.i/23JUL10.b/1000723.d
Level 7: /chem1/finn5.i/23JUL10.b/1500723.d
Level 8: /chem1/finn5.i/23JUL10.b/2000723.d

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
1 Dichlorodifluoromethane	0.61856	0.69160	0.65985	0.63344	0.67493	0.67442			
	0.63254	0.60144					0.64835	4.860	
2 Chloromethane	2.15529	1.96152	1.91728	2.00912	1.65244	1.56576			
	1.38789	1.30591					1.74440	17.810	
3 Vinyl Chloride	1.51916	1.45247	1.51314	1.59745	1.36296	1.35754			
	1.17136	1.06143					1.37944	13.295	
4 Bromomethane	0.93443	0.85086	0.77665	0.62524	0.81039	0.76904			
	0.64701	0.57949					0.74914	16.282	
181 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
5 Chloroethane	1.07062	1.09297	0.98777	0.87106	0.87644	0.77822			
	0.62883	+++++					0.90084	18.341	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
6 Trichlorofluoromethane	1.47611	1.55864	1.50469	1.41033	1.42641	1.27999		
	1.04222	0.96730					1.33321	16.450
7 Acrolein	0.20463	0.19693	0.17700	0.16354	0.15712	0.14591		
	0.11901	+++++					0.16631	17.814
8 112Trichloro122Trifluoroethan	1.27446	1.18209	1.20394	1.12348	1.01422	0.97608		
	0.81784	0.75797					1.04376	17.834
9 Acetone	0.30796	0.31971	0.31370	0.30116	0.26843	0.24372		
	0.20402	+++++					0.27982	15.417
10 1,1-Dichloroethene	1.03591	1.01895	1.04143	1.03174	0.97906	0.93375		
	0.79718	0.73915					0.94715	12.366
11 Bromoethane	0.70730	0.74361	0.72880	0.75267	0.72730	0.72722		
	0.63319	0.59114					0.70140	8.233
12 Iodomethane	1.01087	1.06621	1.14259	1.14012	1.25306	1.25553		
	1.06567	1.02480					1.11986	8.526
13 Methylene Chloride	+++++	1.39659	1.18975	1.12760	0.93514	0.92898		
	0.82084	+++++					1.06648	19.864
14 Acrylonitrile	0.19594	0.24276	0.28315	0.28492	0.26101	0.25835		
	0.23046	0.21983					0.24705	12.529

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
16 Methyl tert-Butyl Ether	1.39176	1.48204	1.61653	1.63134	1.52463	1.54183			
	1.31326	1.15084					1.45653	11.218	
15 Carbon Disulfide	3.37220	3.30955	3.39522	3.28180	3.17583	2.86693			
	2.18562	1.91323					2.93755	19.647	
17 Trans-1,2-Dichloroethene	0.81493	0.82496	0.80638	0.89481	0.79365	0.83461			
	0.76581	0.72223					0.80717	6.268	
18 Vinyl Acetate	1.37858	1.47513	1.52895	1.55974	1.56063	1.55351			
	1.19699	1.05617					1.41371	13.515	
19 1,1-Dichloroethane	1.59340	1.57720	1.61593	1.67405	1.53370	1.56119			
	1.25502	1.06889					1.48492	14.111	
179 Hexane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
20 2-Butanone	0.32659	0.32955	0.34359	0.35332	0.32770	0.32306			
	0.26832	0.24668					0.31485	11.826	
21 2,2-Dichloropropane	0.88742	0.89660	0.93309	0.95140	0.91310	0.95603			
	0.87622	0.85519					0.90863	3.989	
22 Cis-1,2-Dichloroethene	0.70291	0.70218	0.71753	0.75872	0.69175	0.74171			
	0.68699	0.68958					0.71142	3.685	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
24 Chloroform	1.24898	1.29560	1.31578	1.31952	1.20276	1.23393			
	1.07329	0.95949					1.20617	10.579	
26 Bromochloromethane	0.30137	0.32304	0.36688	0.35714	0.33542	0.35133			
	0.33200	0.33497					0.33777	6.124	
27 1,1,1-Trichloroethane	0.97660	0.93458	0.97291	0.98520	0.93283	0.96160			
	0.87853	0.86280					0.93813	4.889	
182 1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
29 1,1-Dichloropropene	0.66975	0.69007	0.71193	0.76499	0.67325	0.69499			
	0.63130	0.59559					0.67899	7.511	
30 Carbon Tetrachloride	0.58124	0.62407	0.60370	0.63020	0.57050	0.59224			
	0.55109	0.57045					0.59044	4.670	
32 1,2-Dichloroethane	0.57115	0.62874	0.63301	0.67822	0.58611	0.59776			
	0.54427	0.52926					0.59607	8.280	
33 Benzene	1.75947	1.76841	1.80022	1.96537	1.65649	1.45472			
	1.08835	+++++					1.64186	17.603	
180 Isooctane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
35 Trichloroethene	0.43601	0.49962	0.50986	0.54002	0.46846	0.48511			
	0.44820	0.46107					0.48104	7.173	
36 1,2-Dichloropropane	0.52451	0.52147	0.54818	0.58228	0.50133	0.51755			
	0.47045	0.47472					0.51756	7.121	
38 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
37 Bromodichloromethane	0.52125	0.59258	0.58170	0.60376	0.54255	0.55496			
	0.51592	0.51411					0.55335	6.471	
39 Dibromomethane	0.25305	0.25915	0.25993	0.28772	0.24894	0.26038			
	0.23699	0.24918					0.25692	5.717	
40 2-Chloroethyl Vinyl Ether	+++++	0.14178	0.17329	0.18981	0.18519	0.19380			
	0.18677	0.19813					0.18125	10.524	
41 4-Methyl-2-Pentanone	0.14149	0.13693	0.13232	0.14268	0.13289	0.13206			
	0.12187	0.11715					0.13218	6.720	
42 Cis 1,3-dichloropropene	0.50313	0.56652	0.59990	0.66027	0.63768	0.67623			
	0.61950	0.56997					0.60415	9.387	
28 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
44 Toluene	1.25664	1.10456	1.02224	1.05184	0.92146	0.94617		
	0.78347	0.70675					0.97414	18.057
45 Trans 1,3-Dichloropropene	0.44640	0.47190	0.49114	0.54059	0.52142	0.55921		
	0.52387	0.50804					0.50782	7.254
46 2-Hexanone	0.48863	0.41802	0.40375	0.43814	0.38146	0.32234		
	+++++	+++++					0.40872	13.652
47 1,1,2-Trichloroethane	0.26879	0.29516	0.32288	0.33895	0.29564	0.30800		
	0.29114	0.30558					0.30327	6.989
48 1,3-Dichloropropane	0.68343	0.71401	0.71469	0.75583	0.67765	0.72373		
	0.67642	0.68404					0.70372	4.007
49 Tetrachloroethene	0.61667	0.52708	0.56488	0.56674	0.48964	0.54556		
	0.54309	0.59035					0.55550	6.995
50 Chlorodibromomethane	0.42693	0.43952	0.46540	0.50238	0.45273	0.49329		
	0.47878	0.52825					0.47341	7.173
51 1,2-Dibromoethane	0.30087	0.32786	0.33839	0.34926	0.32203	0.32796		
	0.30873	0.32362					0.32484	4.715
53 Chlorobenzene	1.44874	1.25551	1.21469	1.28463	1.09325	1.17322		
	0.98203	0.92990					1.17275	14.376

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
55 1,1,1,2-Tetrachloroethane	0.48807	0.46350	0.43819	0.45358	0.38926	0.42774		
	0.43874	0.49165					0.44884	7.446
54 Ethyl Benzene	2.20280	2.17625	2.08813	2.26814	2.02082	1.78412		
	1.34210	+++++					1.98319	16.336
56 m,p-xylene	0.68572	0.70089	0.75629	0.82054	0.76759	0.80414		
	0.64714	0.61656					0.72486	10.182
57 o-Xylene	0.59735	0.67179	0.70053	0.77321	0.74982	0.84040		
	0.82834	0.86537					0.75335	12.283
58 Styrene	1.01338	1.04252	1.15090	1.32066	1.22803	1.34186		
	1.12721	1.09402					1.16482	10.471
59 Isopropyl Benzene	3.58090	3.46378	3.66983	4.08053	3.63628	3.05286		
	2.07611	+++++					3.36576	19.154
60 Bromoform	0.58786	0.56177	0.56335	0.58351	0.52086	0.53868		
	0.49959	0.47363					0.54116	7.521
61 1,1,2,2-Tetrachloroethane	1.19875	1.12388	1.03602	1.12613	0.91700	0.89056		
	0.77962	0.70704					0.97237	18.199
63 1,2,3-Trichloropropane	+++++	0.22594	0.22109	0.22654	0.18550	0.18274		
	0.16039	0.14626					0.19264	16.965

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
65 Trans-1,4-Dichloro 2-Butene	+++++	0.32184	0.32576	0.34893	0.30143	0.29907		
	0.25759	0.23740					0.29886	13.135
66 N-Propyl Benzene	4.35587	4.36240	4.59339	5.13243	4.29164	3.33374		
	+++++	+++++					4.34491	13.450
67 Bromobenzene	0.97674	0.93719	0.97174	1.05787	0.91718	0.95651		
	0.87178	0.81723					0.93828	7.723
68 1,3,5-Trimethyl Benzene	2.66281	2.66686	2.91760	3.22571	2.99783	2.73312		
	1.92105	+++++					2.73214	15.058
69 2-Chloro Toluene	3.12291	2.80576	3.07335	3.37221	2.80971	2.82080		
	1.97970	+++++					2.85492	15.393
70 4-Chloro Toluene	2.62581	2.91088	2.87998	3.29757	2.95871	2.62567		
	1.85746	+++++					2.73658	16.426
71 T-Butyl Benzene	2.25508	2.38597	2.57296	2.86417	2.63858	2.56035		
	1.95835	1.46344					2.33736	19.065
72 1,2,4-Trimethylbenzene	2.43800	2.54502	2.85134	3.25960	2.94781	2.80039		
	1.98513	+++++					2.68961	15.258
73 S-Butyl Benzene	3.65072	3.68903	3.98398	4.45398	4.03139	3.26306		
	+++++	+++++					3.84536	10.568

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD	
	150.000 Level 7	200.000 Level 8							
74 4-Isopropyl Toluene	2.22576	2.54160	2.82348	3.17997	2.94657	2.74678			
	2.00557	+++++					2.63853	15.583	
75 1,3-Dichlorobenzene	1.56180	1.53308	1.67395	1.91240	1.64575	1.80399			
	1.47885	1.21428					1.60301	13.256	
64 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
77 1,4-Dichlorobenzene	1.65466	1.57267	1.70259	1.83867	1.59685	1.77492			
	1.48449	1.20781					1.60408	12.218	
178 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++			
	+++++	+++++					+++++	+++++	<-
78 N-Butyl Benzene	2.81013	2.76549	3.04510	3.43035	3.10253	2.84626			
	1.94473	+++++					2.84923	16.127	
80 1,2-Dichlorobenzene	1.53737	1.60237	1.63752	1.74962	1.51750	1.58654			
	1.40066	1.15636					1.52349	11.753	
81 1,2-Dibromo 3-Chloropropane	0.15220	0.20921	0.18954	0.20055	0.17137	0.15806			
	0.13717	0.12795					0.16826	17.597	
82 1,2,4-Trichlorobenzene	0.96487	1.01671	0.97082	1.12640	0.86020	0.91319			
	0.82523	0.73938					0.92710	12.980	

Analytical Resources, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 23-JUL-2010 17:18
End Cal Date : 23-JUL-2010 20:28
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem1/finn5.i/23JUL10.b/s8260b.m
Cal Date : 26-Jul-2010 09:12 patrickb
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	50.000 Level 5	100.000 Level 6	RRF	% RSD
	150.000 Level 7	200.000 Level 8						
83 Hexachloro 1,3-Butadiene	0.58506	0.68805	0.68940	0.75107	0.58913	0.59714		
	0.55357	0.54187					0.62441	12.059
84 Naphthalene	1.71610	1.75595	1.74219	2.09362	1.61770	1.55845		
	1.28695	+++++					1.68157	14.468
85 1,2,3-Trichlorobenzene	0.96068	1.02012	0.96026	1.13604	0.80895	0.82225		
	0.73656	0.64602					0.88636	18.168
$ 25 Dibromofluoromethane	0.64899	0.62877	0.61356	0.58619	0.59870	0.58643		
	0.57172	0.53307					0.59593	5.995
$ 31 d4-1,2-Dichloroethane	0.71761	0.70471	0.68731	0.64625	0.64321	0.64102		
	0.61687	0.55964					0.65208	7.847
$ 43 d8-Toluene	1.12329	1.14949	1.12157	1.10618	1.11356	1.07971		
	1.04839	1.04692					1.09864	3.363
$ 62 4-Bromofluorobenzene	0.54956	0.55666	0.55779	0.55088	0.56658	0.59164		
	0.61336	0.69489					0.58517	8.478
$ 79 d4-1,2-Dichlorobenzene	0.92905	0.92027	0.92025	0.92575	0.92529	0.90255		
	0.87965	0.87290					0.90947	2.425

Report Date : 29-Jul-2010 14:28

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Batch File: /chem1/finn5.i/23JUL10.b
Inst ID: finn5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	2000723	1500723	1000723	0500723	0100723	0050723	0020723	0010723
INJ.DATE:	23-JUL-2010	23-JUL-2010	23-JUL-2010	23-JUL-2010	23-JUL-2010	23-JUL-2010	23-JUL-2010	23-JUL-2010
INJ.TIME:	17:18	17:49	18:16	18:42	19:09	19:35	20:02	20:28

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Dichlorodifluoromethan	3.015	3.015	3.005	3.005	3.005	3.005	3.005	2.995	3.015	2.750-3.280	3.006	0.006
2 Chloromethane	3.316	3.316	3.306	3.306	3.306	3.296	3.306	3.296	3.316	3.051-3.581	3.306	0.008
3 Vinyl Chloride	3.417	3.417	3.417	3.417	3.407	3.417	3.427	3.417	3.417	3.152-3.682	3.417	0.005
4 Bromomethane	3.909	3.909	3.909	3.909	3.899	3.899	3.909	3.899	3.909	3.644-4.174	3.906	0.005
181 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	4.500	4.235-4.765	+++++	+++++
5 Chloroethane	3.980	3.980	3.980	3.980	3.970	3.970	3.980	3.970	3.980	3.715-4.245	3.976	0.005
6 Trichlorofluoromethane	4.241	4.241	4.241	4.241	4.231	4.231	4.241	4.231	4.241	3.976-4.506	4.237	0.005
7 Acrolein	4.633	4.633	4.633	4.623	4.623	4.623	4.623	4.623	4.633	4.368-4.898	4.627	0.005
8 112Trichloro122Trifluo	4.643	4.643	4.643	4.633	4.633	4.633	4.643	4.633	4.643	4.378-4.908	4.638	0.005
9 Acetone	4.693	4.683	4.683	4.673	4.673	4.673	4.673	4.673	4.693	4.428-4.958	4.678	0.008
10 1,1-Dichloroethene	4.844	4.844	4.834	4.834	4.834	4.834	4.834	4.834	4.844	4.579-5.109	4.837	0.005
11 Bromoethane	5.055	5.055	5.055	5.055	5.055	5.045	5.055	5.055	5.055	4.790-5.320	5.054	0.004
12 Iodomethane	5.156	5.156	5.156	5.156	5.146	5.146	5.156	5.146	5.156	4.891-5.421	5.152	0.005
13 Methylene Chloride	5.276	5.276	5.276	5.266	5.266	5.266	5.266	5.266	5.276	5.011-5.541	5.270	0.005
14 Acrylonitrile	5.367	5.357	5.357	5.357	5.357	5.347	5.347	5.347	5.367	5.102-5.632	5.354	0.007
16 Methyl tert-Butyl Ethe	5.407	5.397	5.397	5.397	5.397	5.387	5.397	5.387	5.407	5.142-5.672	5.396	0.006
15 Carbon Disulfide	5.377	5.377	5.377	5.377	5.367	5.367	5.377	5.367	5.377	5.112-5.642	5.373	0.005

Reviewer 1 ___ Date: 7/27/10
Reviewer 2 ___ Date: ___

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Batch File: /chem1/finn5.i/23JUL10.b
Inst ID: finn5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 Trans-1,2-Dichloroethe	5.558	5.558	5.558	5.558	5.548	5.548	5.558	5.548	5.558	5.293-5.822	5.554	0.005
18 Vinyl Acetate	5.879	5.879	5.879	5.879	5.869	5.869	5.879	5.869	5.879	5.614-6.144	5.875	0.005
19 1,1-Dichloroethane	5.940	5.940	5.940	5.940	5.929	5.929	5.929	5.929	5.940	5.675-6.204	5.935	0.005
179 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.990	5.725-6.255	+++++	+++++
20 2-Butanone	6.291	6.281	6.281	6.281	6.281	6.271	6.281	6.271	6.291	6.026-6.556	6.280	0.006
21 2,2-Dichloropropane	6.462	6.462	6.462	6.452	6.452	6.452	6.452	6.442	6.462	6.197-6.727	6.455	0.007
22 Cis-1,2-Dichloroethene	6.502	6.502	6.492	6.492	6.492	6.492	6.492	6.482	6.502	6.237-6.767	6.494	0.006
* 23 Pentafluorobenzene	6.623	6.623	6.623	6.623	6.623	6.623	6.623	6.613	6.623	6.358-6.888	6.622	0.004
24 Chloroform	6.643	6.643	6.643	6.643	6.633	6.633	6.643	6.633	6.643	6.378-6.908	6.639	0.005
26 Bromochloromethane	6.814	6.814	6.804	6.804	6.804	6.804	6.804	6.794	6.814	6.549-7.079	6.805	0.006
$ 25 Dibromofluoromethane	6.844	6.844	6.844	6.844	6.834	6.834	6.834	6.834	6.844	6.579-7.109	6.839	0.005
27 1,1,1-Trichloroethane	7.035	7.035	7.035	7.025	7.025	7.025	7.025	7.015	7.035	6.770-7.300	7.027	0.007
182 1-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.030	7.765-8.295	+++++	+++++
29 1,1-Dichloropropene	7.176	7.176	7.176	7.176	7.166	7.166	7.176	7.166	7.176	6.870-7.481	7.172	0.005
$ 31 d4-1,2-Dichloroethane	7.306	7.306	7.306	7.306	7.296	7.296	7.306	7.296	7.306	7.041-7.571	7.303	0.005
30 Carbon Tetrachloride	7.296	7.296	7.286	7.286	7.286	7.286	7.286	7.286	7.296	6.991-7.602	7.289	0.005
32 1,2-Dichloroethane	7.397	7.397	7.397	7.387	7.387	7.387	7.387	7.387	7.397	7.091-7.702	7.391	0.005
33 Benzene	7.447	7.447	7.447	7.437	7.437	7.437	7.437	7.427	7.447	7.141-7.752	7.439	0.007
180 Isooctane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.687	6.422-6.952	+++++	+++++
* 34 1,4-Difluorobenzene	7.638	7.638	7.638	7.628	7.628	7.628	7.628	7.628	7.638	7.332-7.944	7.632	0.005
35 Trichloroethene	8.010	8.010	8.010	8.000	8.000	8.000	8.010	8.000	8.010	7.704-8.315	8.005	0.005
36 1,2-Dichloropropane	8.171	8.171	8.171	8.171	8.161	8.161	8.161	8.161	8.171	7.865-8.476	8.166	0.005

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Batch File: /chem1/finn5.i/23JUL10.b
Inst ID: finn5.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	38 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.887	8.622-9.152	+++++	+++++
	37 Bromodichloromethane	8.412	8.402	8.402	8.402	8.402	8.392	8.402	8.392	8.412	8.106-8.717	8.401	0.006
	39 Dibromomethane	8.472	8.472	8.472	8.472	8.472	8.462	8.472	8.462	8.472	8.167-8.778	8.470	0.005
	40 2-Chloroethyl Vinyl Et	8.623	8.623	8.623	8.613	8.613	8.613	8.613	8.613	8.623	8.317-8.928	8.617	0.005
	41 4-Methyl-2-Pentanone	8.663	8.653	8.653	8.653	8.653	8.643	8.653	8.643	8.663	8.357-8.969	8.652	0.006
	42 Cis 1,3-dichloropropen	8.914	8.914	8.904	8.904	8.904	8.904	8.904	8.894	8.914	8.609-9.220	8.906	0.006
	28 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	7.337	7.072-7.602	+++++	+++++
$	43 d8-Toluene	9.186	9.186	9.186	9.186	9.176	9.176	9.186	9.176	9.186	8.880-9.491	9.182	0.005
	44 Toluene	9.276	9.266	9.266	9.266	9.266	9.256	9.266	9.256	9.276	8.971-9.582	9.265	0.006
	45 Trans 1,3-Dichloroprop	9.407	9.397	9.397	9.397	9.397	9.387	9.397	9.387	9.407	9.101-9.712	9.395	0.006
	46 2-Hexanone	9.537	9.537	9.527	9.527	9.527	9.527	9.527	9.527	9.537	9.106-9.969	9.530	0.005
	47 1,1,2-Trichloroethane	9.588	9.578	9.578	9.578	9.578	9.578	9.578	9.568	9.588	9.282-9.893	9.578	0.005
	48 1,3-Dichloropropane	9.839	9.839	9.839	9.839	9.829	9.829	9.839	9.829	9.839	9.407-10.270	9.835	0.005
	49 Tetrachloroethene	9.960	9.960	9.960	9.960	9.949	9.949	9.960	9.949	9.960	9.528-10.391	9.956	0.005
	50 Chlorodibromomethane	10.171	10.171	10.161	10.161	10.161	10.161	10.161	10.161	10.171	9.739-10.602	10.163	0.005
	51 1,2-Dibromoethane	10.392	10.392	10.392	10.392	10.382	10.382	10.382	10.382	10.392	10.086-10.697	10.387	0.005
*	52 d5-Chlorobenzene	10.794	10.784	10.784	10.784	10.784	10.784	10.784	10.774	10.794	10.362-11.225	10.784	0.005
	53 Chlorobenzene	10.834	10.834	10.824	10.824	10.824	10.824	10.824	10.814	10.834	10.402-11.266	10.825	0.006
	55 1,1,1,2-Tetrachloroeth	10.864	10.854	10.854	10.854	10.844	10.844	10.854	10.844	10.864	10.432-11.296	10.851	0.007
	54 Ethyl Benzene	10.864	10.864	10.864	10.854	10.854	10.854	10.854	10.854	10.864	10.432-11.296	10.858	0.005
	56 m,p-xylene	10.944	10.944	10.944	10.934	10.934	10.934	10.934	10.934	10.944	10.512-11.376	10.938	0.005
	57 o-Xylene	11.437	11.437	11.427	11.427	11.427	11.427	11.427	11.417	11.437	11.005-11.869	11.428	0.006
	58 Styrene	11.467	11.467	11.457	11.457	11.457	11.457	11.457	11.447	11.467	11.035-11.899	11.458	0.006
	59 Isopropyl Benzene	11.819	11.809	11.809	11.809	11.809	11.799	11.809	11.799	11.819	11.280-12.357	11.807	0.006

LJ 7/26/10

Report Date : 29-Jul-2010 14:28

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Batch File: /chem1/finn5.i/23JUL10.b
Inst ID: finn5.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	60 Bromoform	11.879	11.869	11.869	11.869	11.869	11.859	11.869	11.859	11.879	11.340-12.418	11.868	0.006
	61 1,1,2,2-Tetrachloroeth	11.990	11.990	11.990	11.990	11.980	11.980	11.990	11.980	11.990	11.451-12.528	11.986	0.005
$	62 4-Bromofluorobenzene	12.110	12.110	12.110	12.100	12.100	12.100	12.100	12.100	12.110	11.678-12.542	12.104	0.005
	63 1,2,3-Trichloropropane	12.160	12.160	12.160	12.150	12.150	12.150	12.150	12.150	12.160	11.622-12.699	12.154	0.005
	65 Trans-1,4-Dichloro 2-B	12.211	12.211	12.211	12.211	12.201	12.201	12.201	12.191	12.211	11.672-12.749	12.204	0.007
	66 N-Propyl Benzene	12.271	12.271	12.261	12.261	12.261	12.261	12.261	12.251	12.271	11.732-12.810	12.262	0.006
	67 Bromobenzene	12.361	12.351	12.351	12.351	12.351	12.341	12.351	12.341	12.361	11.823-12.900	12.350	0.006
	68 1,3,5-Trimethyl Benzen	12.442	12.442	12.432	12.432	12.432	12.432	12.432	12.422	12.442	11.903-12.980	12.433	0.006
	69 2-Chloro Toluene	12.502	12.502	12.492	12.492	12.492	12.492	12.492	12.482	12.502	11.963-13.041	12.493	0.006
	70 4-Chloro Toluene	12.552	12.542	12.542	12.532	12.532	12.532	12.532	12.532	12.552	12.014-13.091	12.537	0.008
	71 T-Butyl Benzene	12.854	12.854	12.844	12.844	12.844	12.844	12.844	12.834	12.854	12.315-13.392	12.845	0.006
	72 1,2,4-Trimethylbenzene	12.904	12.894	12.894	12.894	12.894	12.884	12.894	12.884	12.904	12.365-13.443	12.893	0.006
	73 S-Butyl Benzene	13.095	13.095	13.095	13.095	13.085	13.085	13.085	13.085	13.095	12.556-13.634	13.090	0.005
	74 4-Isopropyl Toluene	13.246	13.246	13.236	13.236	13.236	13.236	13.236	13.226	13.246	12.707-13.784	13.237	0.006
	75 1,3-Dichlorobenzene	13.397	13.387	13.387	13.387	13.387	13.377	13.387	13.377	13.397	12.858-13.935	13.385	0.006
	64 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.768	13.336-14.200	+++++	+++++
*	76 d4-1,4-Dichlorobenzene	13.467	13.467	13.467	13.467	13.457	13.457	13.467	13.457	13.467	12.928-14.006	13.463	0.005
	77 1,4-Dichlorobenzene	13.507	13.507	13.507	13.497	13.497	13.497	13.497	13.497	13.507	12.968-14.046	13.501	0.005
	178 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.100	13.561-14.639	+++++	+++++
	78 N-Butyl Benzene	13.728	13.718	13.718	13.718	13.708	13.708	13.718	13.708	13.728	13.190-14.267	13.716	0.007
$	79 d4-1,2-Dichlorobenzene	13.919	13.909	13.909	13.909	13.909	13.909	13.909	13.899	13.919	13.380-14.458	13.909	0.005
	80 1,2-Dichlorobenzene	13.949	13.949	13.949	13.939	13.939	13.939	13.939	13.929	13.949	13.411-14.488	13.942	0.007
	81 1,2-Dibromo 3-Chloropr	14.854	14.854	14.844	14.844	14.844	14.844	14.844	14.834	14.854	14.315-15.393	14.845	0.006

Analytical Resources, Inc.
RETENTION TIME SUMMARY REPORT

Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Batch File: /chem1/finn5.i/23JUL10.b
Inst ID: finn5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
82 1,2,4-Trichlorobenzene	15.899	15.899	15.899	15.889	15.889	15.889	15.889	15.889	15.899	15.360-16.438	15.893	0.005
83 Hexachloro 1,3-Butadie	16.050	16.050	16.050	16.050	16.040	16.040	16.040	16.040	16.050	15.511-16.588	16.045	0.005
84 Naphthalene	16.231	16.221	16.221	16.221	16.221	16.211	16.221	16.211	16.231	15.692-16.769	16.219	0.006
85 1,2,3-Trichlorobenzene	16.512	16.512	16.512	16.512	16.502	16.502	16.502	16.492	16.512	15.973-17.051	16.506	0.007

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/finn5.i/23JUL10.b

ARI Job No.: BFB0   Method: bfb8260.m   Instrument: finn5.i   Date: 23-JUL-2010

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1648	BFB07231.d	BFB0723	BFB0723	1	NO MANUAL INTEGRATION
1718	2000723.d	IC0723	VSTD200	1	NO MANUAL INTEGRATION
1749	1500723.d	IC0723	VSTD150	1	NO MANUAL INTEGRATION
1816	1000723.d	IC0723	VSTD100	1	NO MANUAL INTEGRATION
1842	0500723.d	IC0723	VSTD050	1	NO MANUAL INTEGRATION
1909	0100723.d	IC0723	VSTD010	1	NO MANUAL INTEGRATION
1935	0050723.d	IC0723	VSTD005	1	2-Hexanone, Trans-1,4-Dichloro 2-Butene,
2002	0020723.d	IC0723	VSTD002	1	Acetone, 2-Hexanone, 1,2,3-Trichloropropane, Trans-1,4-Dichloro 2-Butene,
2028	0010723.d	IC0723	VSTD001	1	Acetone, 1,1,1-Trichloroethane, 2-Hexanone, 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane, Trans-1,4-Dichloro 2-Butene,
2214	ICV0723.d	ICV0723	ICV0723	1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/0010723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD001
Inj Date : 23-JUL-2010 20:28
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:28 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 20:28 Cal File: 0010723.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	2.995	2.995	(0.453)	1408	1.00000	0.9540
2 Chloromethane	50	3.296	3.296	(0.498)	4906	1.00000	1.236
3 Vinyl Chloride	62	3.417	3.417	(0.517)	3458	1.00000	1.101
4 Bromomethane	94	3.899	3.899	(0.590)	2127	1.00000	1.247
5 Chloroethane	64	3.970	3.970	(0.600)	2437	1.00000	1.188
6 Trichlorofluoromethane	101	4.231	4.231	(0.640)	3360	1.00000	1.107
7 Acrolein	56	4.623	4.623	(0.699)	2329	5.00000	6.152
8 112Trichloro122Trifluoroethane	101	4.633	4.633	(0.701)	2901	1.00000	1.221
9 Acetone	43	4.673	4.673	(0.707)	3505	5.00000	5.503(M)
10 1,1-Dichloroethene	96	4.834	4.834	(0.731)	2358	1.00000	1.094
11 Bromoethane	108	5.055	5.055	(0.764)	1610	1.00000	1.008
12 Iodomethane	142	5.146	5.146	(0.778)	2301	1.00000	0.9027
13 Methylene Chloride	84	5.266	5.266	(0.796)	3788	1.00000	1.560
14 Acrylonitrile	53	5.347	5.347	(0.808)	446	1.00000	0.7931(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.387	5.387	(0.815)	3168	1.00000	0.9555 (Q)
	15 Carbon Disulfide	76	5.367	5.367	(0.812)	7676	1.00000	1.148 (Q)
	17 Trans-1,2-Dichloroethene	96	5.548	5.548	(0.839)	1855	1.00000	1.010
	18 Vinyl Acetate	43	5.869	5.869	(0.888)	3138	1.00000	0.9751
	19 1,1-Dichloroethane	63	5.929	5.929	(0.897)	3627	1.00000	1.073
	20 2-Butanone	43	6.271	6.271	(0.948)	3717	5.00000	5.186 (T)
	21 2,2-Dichloropropane	77	6.442	6.442	(0.974)	2020	1.00000	0.9766
	22 Cis-1,2-Dichloroethene	96	6.482	6.482	(0.980)	1600	1.00000	0.9880
*	23 Pentafluorobenzene	168	6.613	6.613	(1.000)	113813	50.0000	
	24 Chloroform	83	6.633	6.633	(1.003)	2843	1.00000	1.035 (Q)
	26 Bromochloromethane	128	6.794	6.794	(1.027)	686	1.00000	0.8922 (Q)
$	25 Dibromofluoromethane	111	6.834	6.834	(1.033)	73863	50.0000	54.452 (Q)
	27 1,1,1-Trichloroethane	97	7.015	7.015	(1.061)	2223	1.00000	1.041 (M)
	29 1,1-Dichloropropene	75	7.166	7.166	(0.939)	2255	1.00000	0.9864
	30 Carbon Tetrachloride	117	7.286	7.286	(0.955)	1957	1.00000	0.9844
$	31 d4-1,2-Dichloroethane	65	7.296	7.296	(1.103)	81673	50.0000	55.025
	32 1,2-Dichloroethane	62	7.387	7.387	(0.968)	1923	1.00000	0.9582
	33 Benzene	78	7.427	7.427	(0.974)	5924	1.00000	1.072
*	34 1,4-Difluorobenzene	114	7.628	7.628	(1.000)	168346	50.0000	
	35 Trichloroethene	95	8.000	8.000	(1.049)	1468	1.00000	0.9064
	36 1,2-Dichloropropane	63	8.161	8.161	(1.070)	1766	1.00000	1.013
	37 Bromodichloromethane	83	8.392	8.392	(1.100)	1755	1.00000	0.9420
	39 Dibromomethane	93	8.462	8.462	(1.109)	852	1.00000	0.9849
	40 2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	404	1.00000	0.6620 (Q)
	41 4-Methyl-2-Pentanone	58	8.643	8.643	(1.133)	2382	5.00000	5.352 (Q)
	42 Cis 1,3-dichloropropene	75	8.894	8.894	(1.166)	1694	1.00000	0.8328
$	43 d8-Toluene	98	9.176	9.176	(1.203)	189101	50.0000	51.122
	44 Toluene	92	9.256	9.256	(1.213)	4231	1.00000	1.290
	45 Trans 1,3-Dichloropropene	75	9.387	9.387	(1.231)	1503	1.00000	0.8790 (Q)
	46 2-Hexanone	43	9.527	9.527	(0.884)	6953	5.00000	5.978 (M)
	47 1,1,2-Trichloroethane	97	9.568	9.568	(1.254)	905	1.00000	0.8863
	48 1,3-Dichloropropane	76	9.829	9.829	(0.912)	1945	1.00000	0.9712
	49 Tetrachloroethene	166	9.949	9.949	(0.924)	1755	1.00000	1.110
	50 Chlorodibromomethane	129	10.161	10.161	(0.943)	1215	1.00000	0.9018
	51 1,2-Dibromoethane	107	10.382	10.382	(1.361)	1013	1.00000	0.9262 (T)
*	52 d5-Chlorobenzene	117	10.774	10.774	(1.000)	142296	50.0000	
	53 Chlorobenzene	112	10.814	10.814	(1.004)	4123	1.00000	1.235
	54 Ethyl Benzene	91	10.854	10.854	(1.007)	6269	1.00000	1.111
	55 1,1,1,2-Tetrachloroethane	131	10.844	10.844	(1.007)	1389	1.00000	1.087
	56 m,p-xylene	106	10.934	10.934	(1.015)	3903	2.00000	1.892 (Q)
	57 o-Xylene	106	11.417	11.417	(1.060)	1700	1.00000	0.7929 (Q)
	58 Styrene	104	11.447	11.447	(1.062)	2884	1.00000	0.8700
	59 Isopropyl Benzene	105	11.799	11.799	(0.877)	5129	1.00000	1.064
	60 Bromoform	173	11.859	11.859	(0.881)	842	1.00000	1.086
	61 1,1,2,2-Tetrachloroethane	83	11.980	11.980	(0.890)	1717	1.00000	1.233 (M)
$	62 4-Bromofluorobenzene	95	12.100	12.100	(1.123)	78200	50.0000	46.957
	63 1,2,3-Trichloropropane	110	12.150	12.150	(0.903)	282	1.00000	1.022 (QM)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.191	12.191	(0.906)	407	1.00000	0.9508 (QM)
	66 N-Propyl Benzene	91	12.251	12.251	(0.910)	6239	1.00000	1.002
	67 Bromobenzene	156	12.341	12.341	(0.917)	1399	1.00000	1.041
	68 1,3,5-Trimethyl Benzene	105	12.422	12.422	(0.923)	3814	1.00000	0.9746
	69 2-Chloro Toluene	91	12.482	12.482	(0.928)	4473	1.00000	1.094
	70 4-Chloro Toluene	91	12.532	12.532	(0.931)	3761	1.00000	0.9595
	71 T-Butyl Benzene	119	12.834	12.834	(0.954)	3230	1.00000	0.9648
	72 1,2,4-Trimethylbenzene	105	12.884	12.884	(0.957)	3492	1.00000	0.9064
	73 S-Butyl Benzene	105	13.085	13.085	(0.972)	5229	1.00000	0.9494
	74 4-Isopropyl Toluene	119	13.226	13.226	(0.983)	3188	1.00000	0.8436
	75 1,3-Dichlorobenzene	146	13.377	13.377	(0.994)	2237	1.00000	0.9743
*	76 d4-1,4-Dichlorobenzene	152	13.457	13.457	(1.000)	71616	50.0000	
	77 1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	2370	1.00000	1.032 (Q)
	78 N-Butyl Benzene	91	13.708	13.708	(1.019)	4025	1.00000	0.9863
$	79 d4-1,2-Dichlorobenzene	152	13.899	13.899	(1.033)	66535	50.0000	51.077
	80 1,2-Dichlorobenzene	146	13.929	13.929	(1.035)	2202	1.00000	1.009
	81 1,2-Dibromo 3-Chloropropane	75	14.834	14.834	(1.102)	218	1.00000	0.9046 (Q)
	82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.181)	1382	1.00000	1.041
	83 Hexachloro 1,3-Butadiene	225	16.040	16.040	(1.192)	838	1.00000	0.9370
	84 Naphthalene	128	16.211	16.211	(1.205)	2458	1.00000	1.020
	85 1,2,3-Trichlorobenzene	180	16.492	16.492	(1.226)	1376	1.00000	1.084

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0010723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD001
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	113813	-13.20
34 1,4-Difluorobenze	191559	95780	383118	168346	-12.12
52 d5-Chlorobenzene	161199	80600	322398	142296	-11.73
76 d4-1,4-Dichlorobe	88279	44140	176558	71616	-18.88

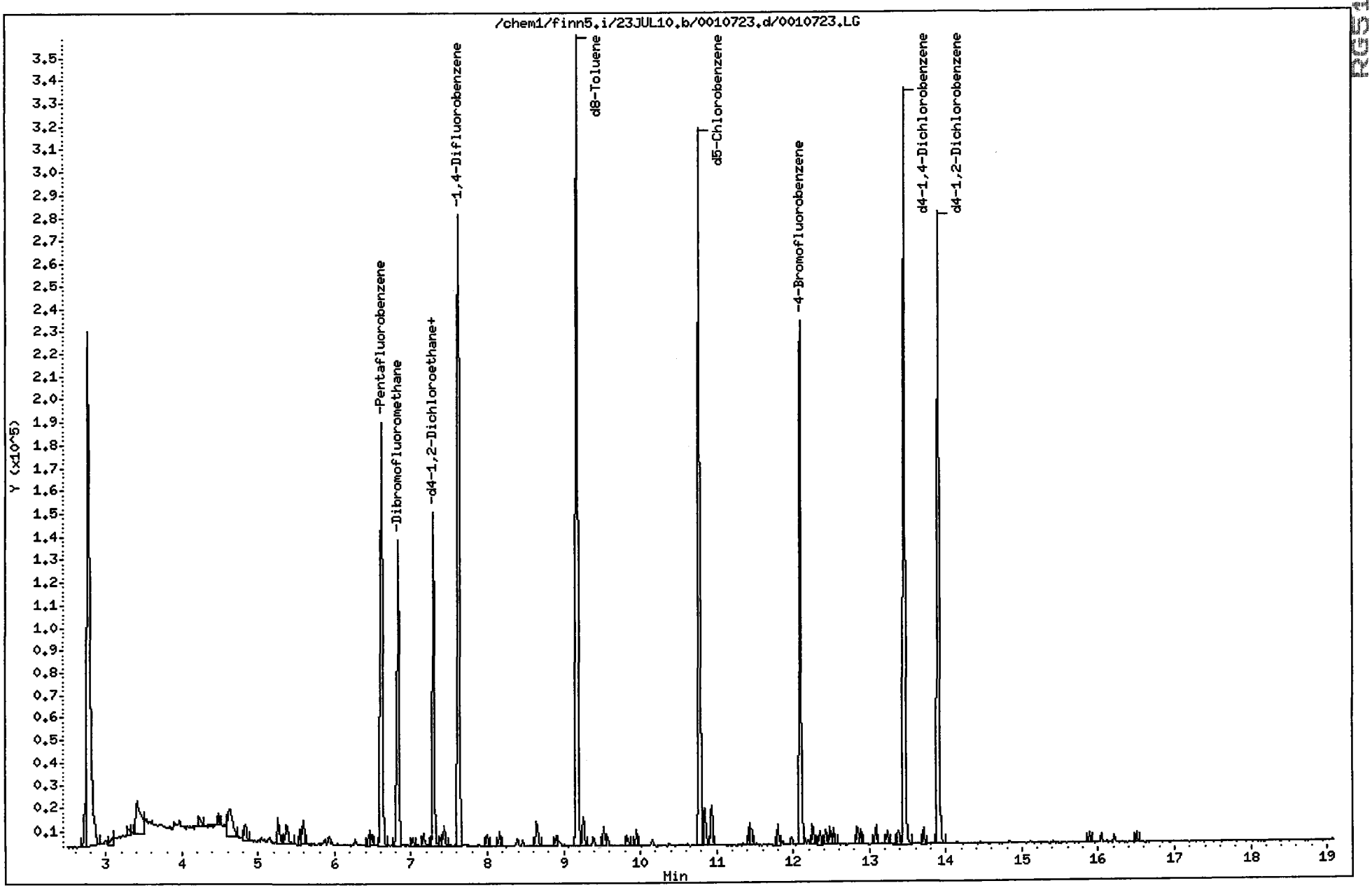
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.61	-0.15
34 1,4-Difluorobenze	7.63	7.13	8.13	7.63	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.77	-0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/0010723.d
Date : 23-JUL-2010 20:28
Client ID: VSTD001
Sample Info: IC0723,5,5,0

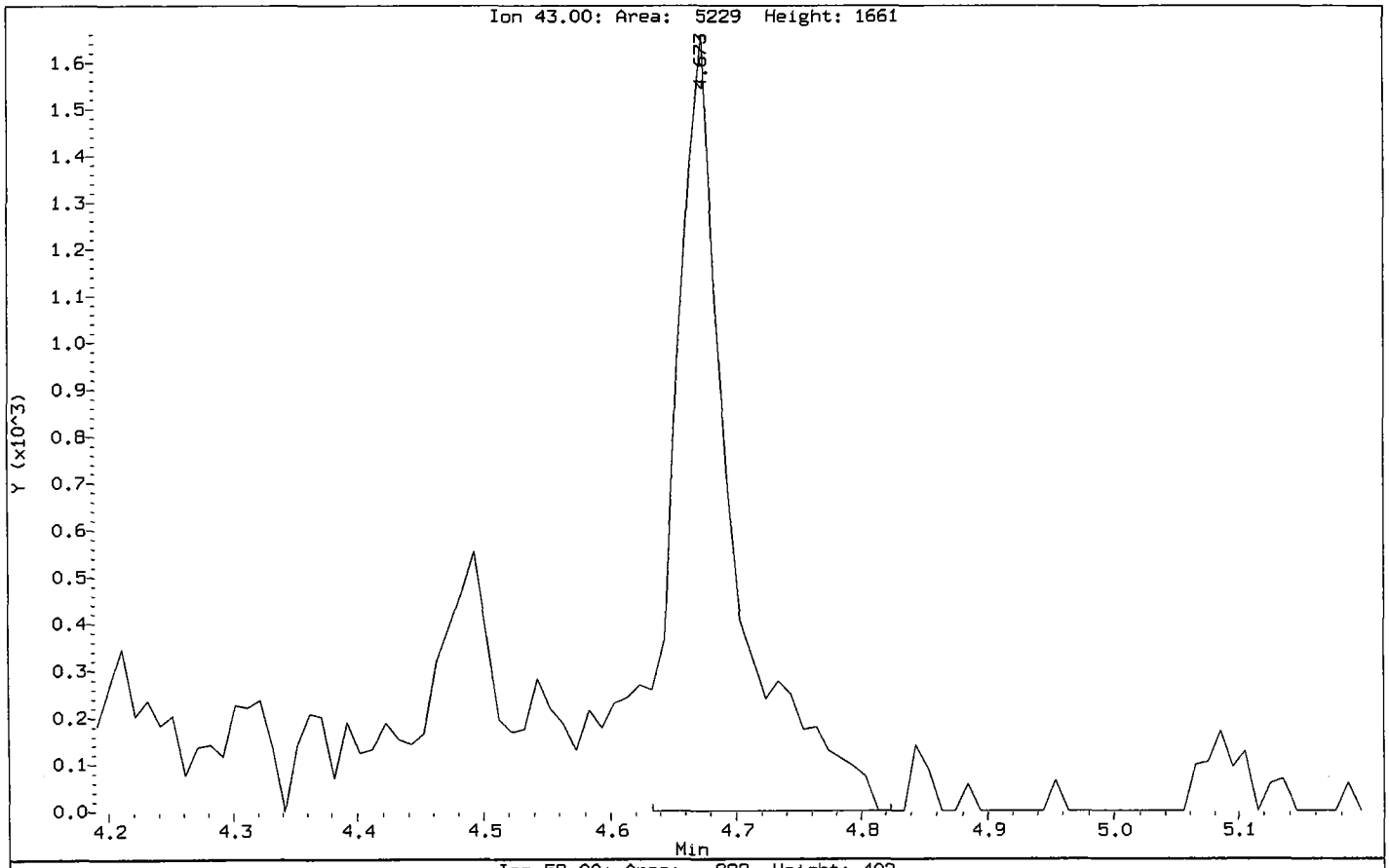
Instrument: finn5.i
Operator: PB
Column diameter: 0.18

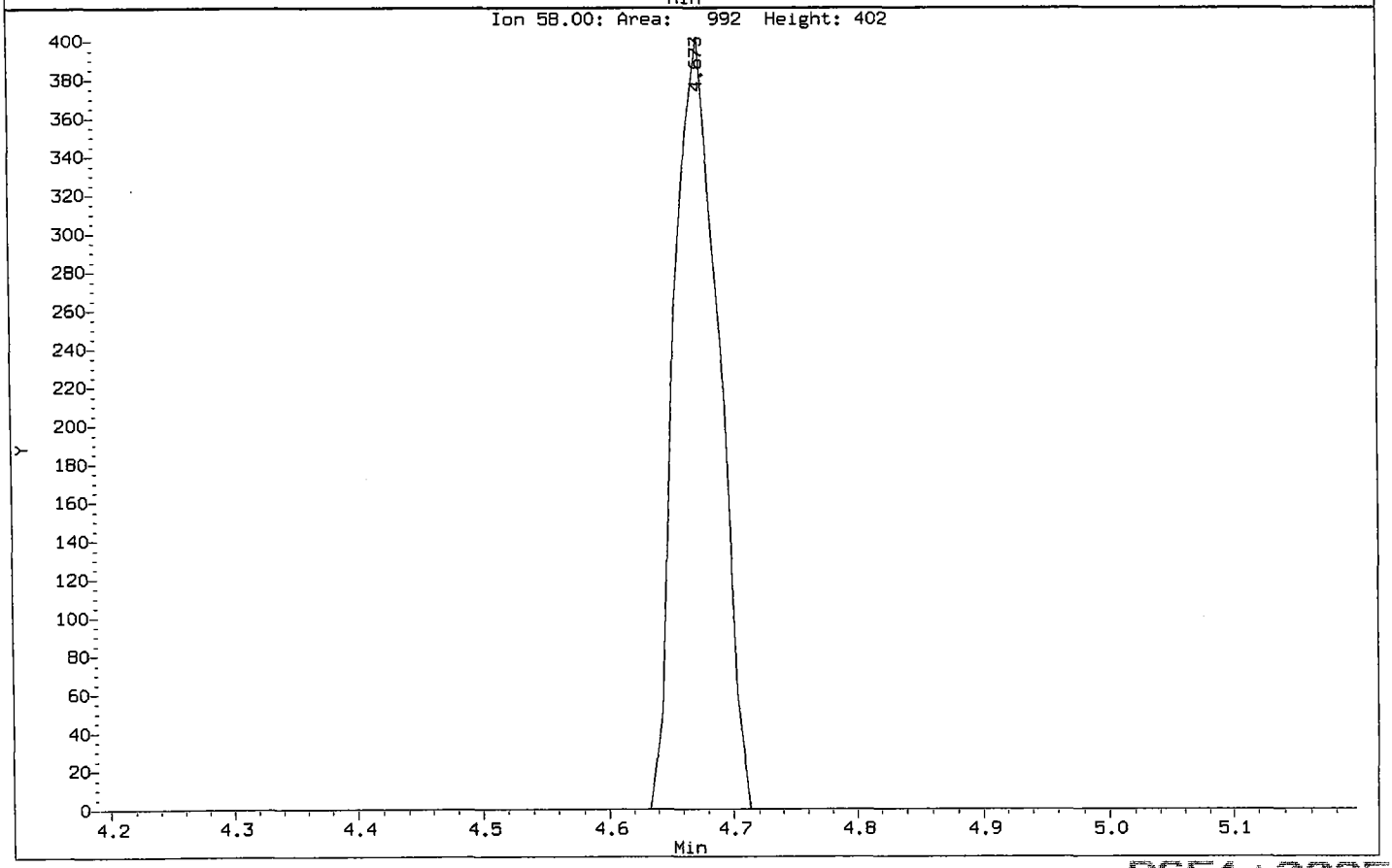
Column phase: Rtx502.2



Data File: /chem1/finn5.i/23JUL10.b/0010723.d/0010723.LG
Injection Date: 23-JUL-2010 20:28
Instrument: finn5.i
Client Sample ID: VSTD001

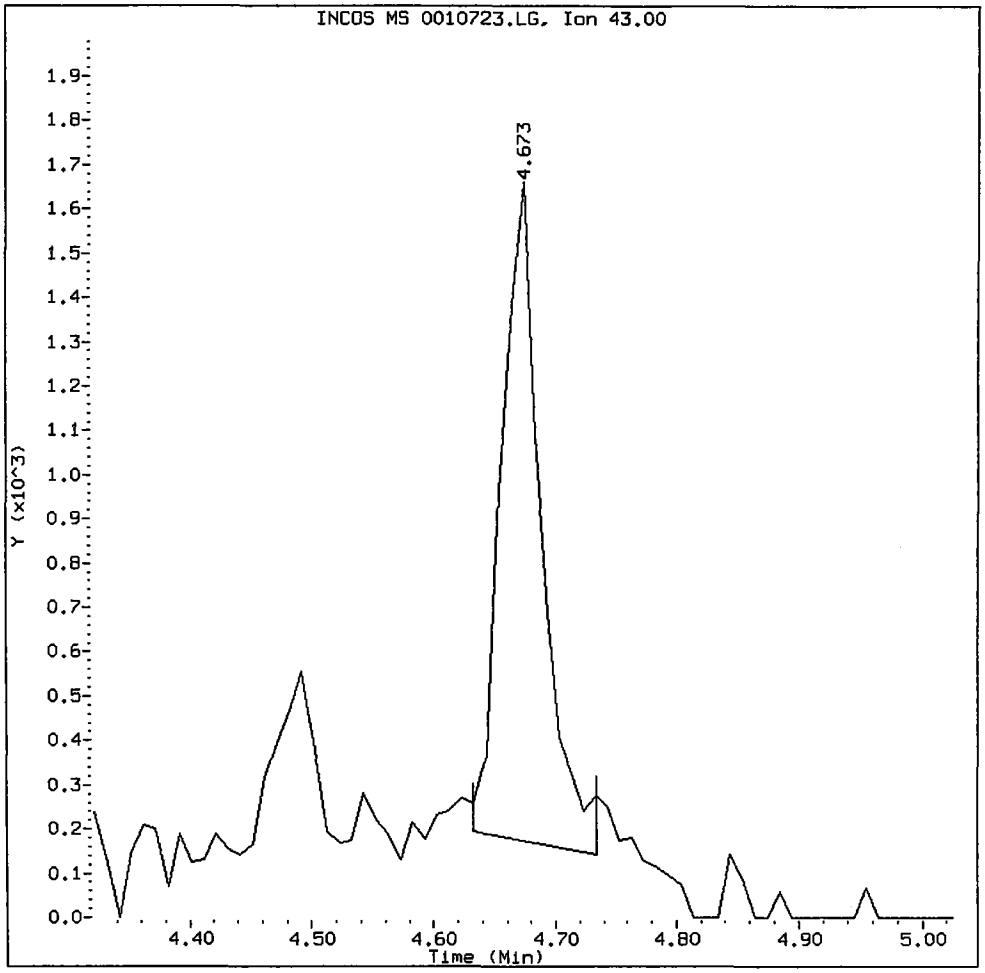
Compound: Acetone
CAS Number:





IC0723, /chem1/finn5.i/23JUL10.b/0010723.d

Acetone Amount: 5.50 Area: 3505



MANUAL INTEGRATION for Acetone

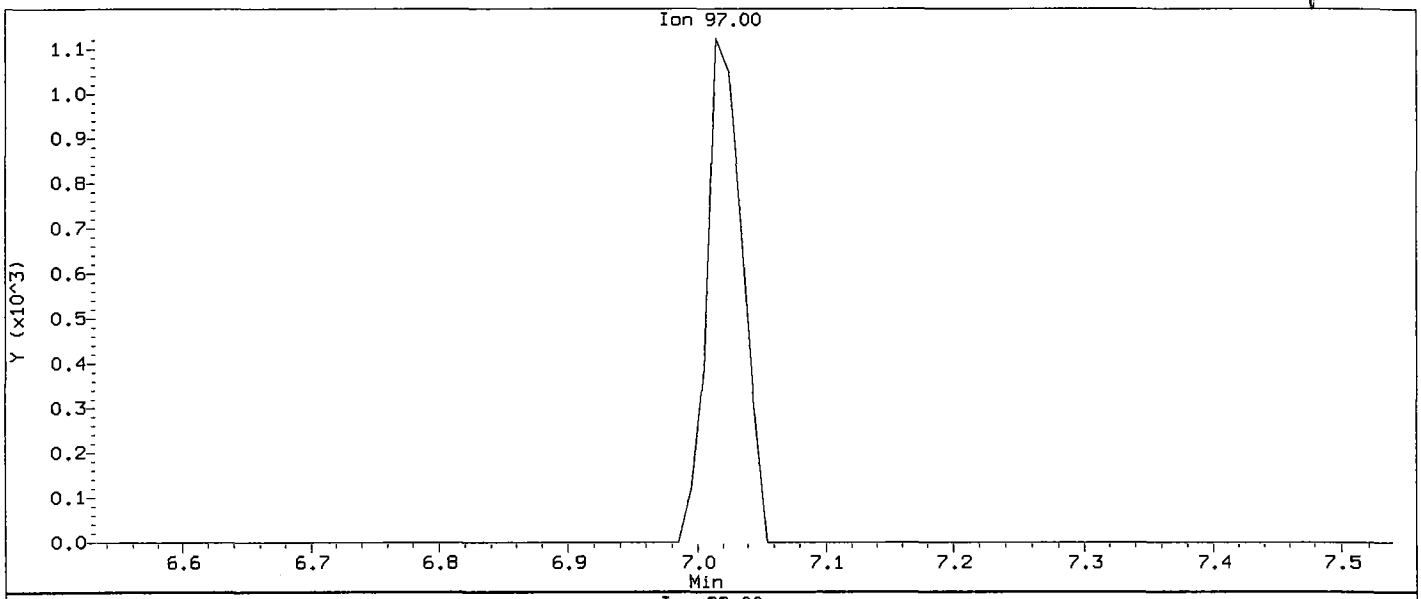
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

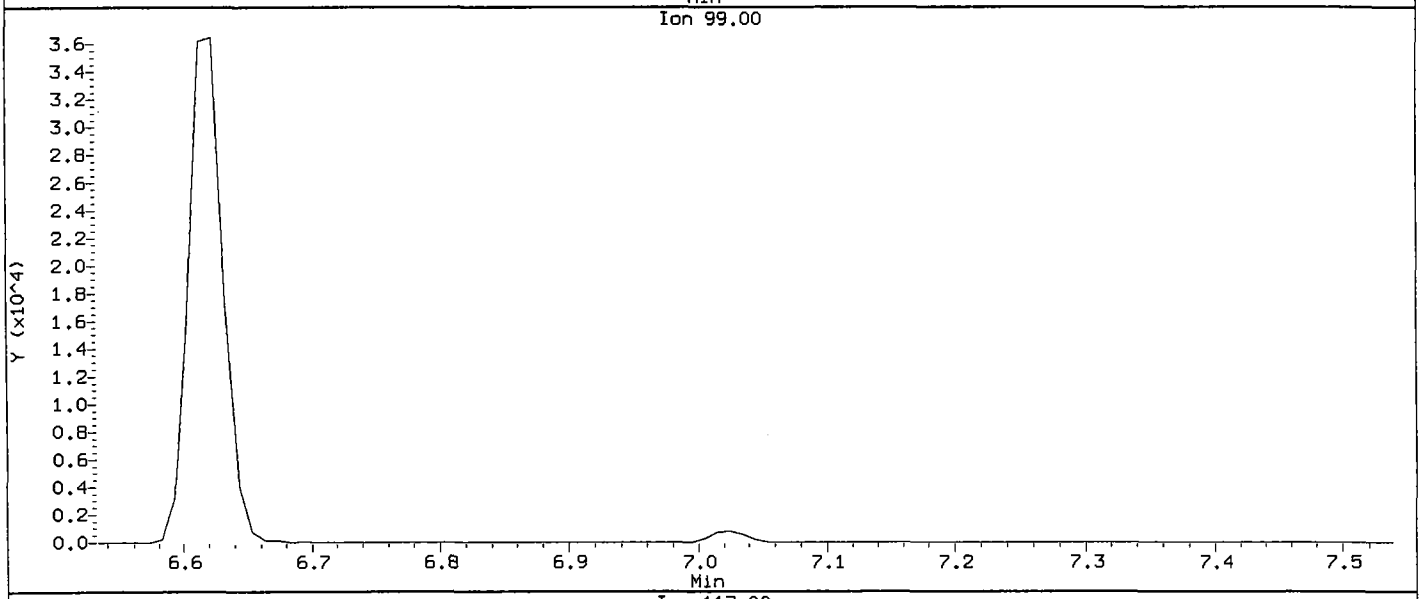
5. Other _____

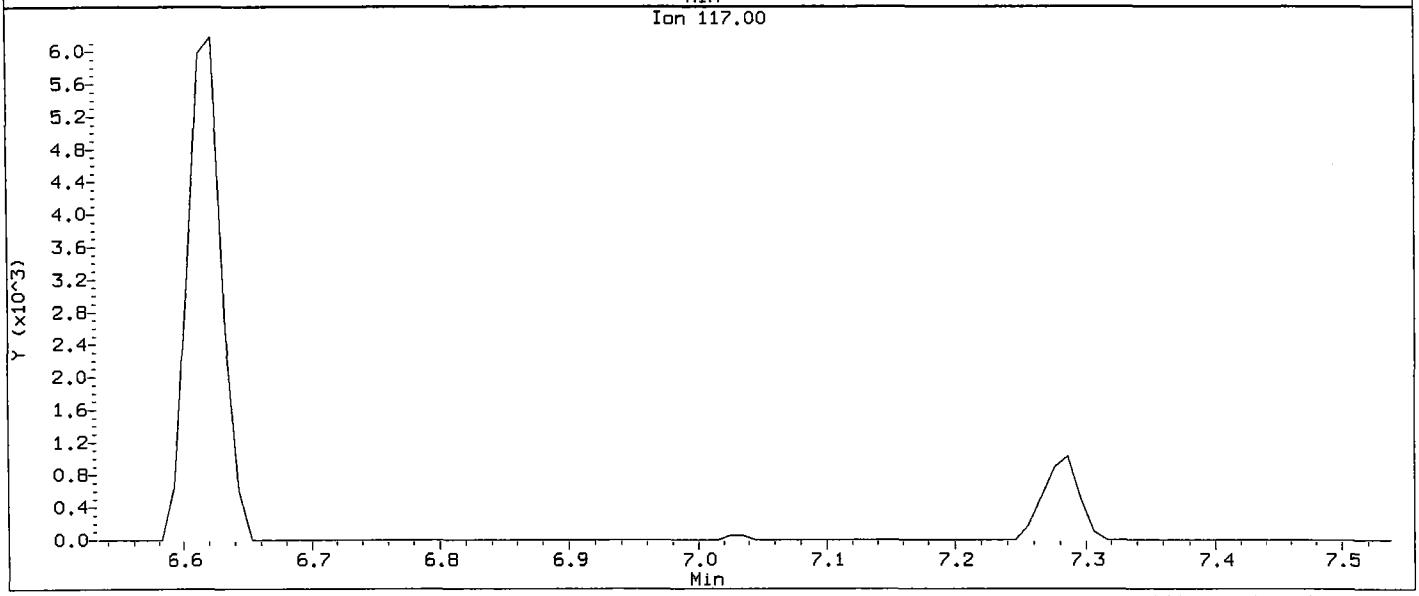
Analyst: _____ Date: 7/12/10

Data File: /chem1/finn5.i/23JUL10.b/0010723.d/0010723.LG
Injection Date: 23-JUL-2010 20:28
Instrument: finn5.i
Client Sample ID: VSTD001

Compound: 1,1,1-Trichloroethane
CAS Number:

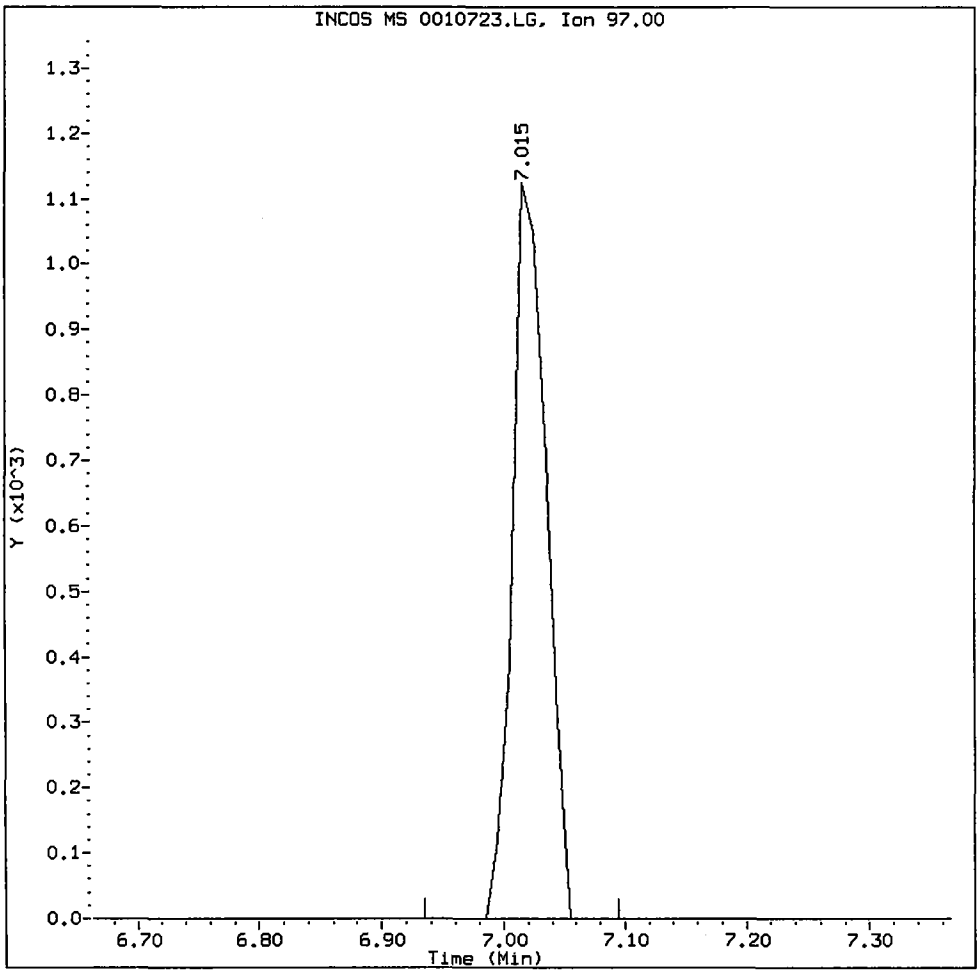






IC0723, /chem1/finn5.i/23JUL10.b/0010723.d

1,1,1-Trichloroethane Amount: 1.04 Area: 2223



MANUAL INTEGRATION for 1,1,1-Trichloroethane

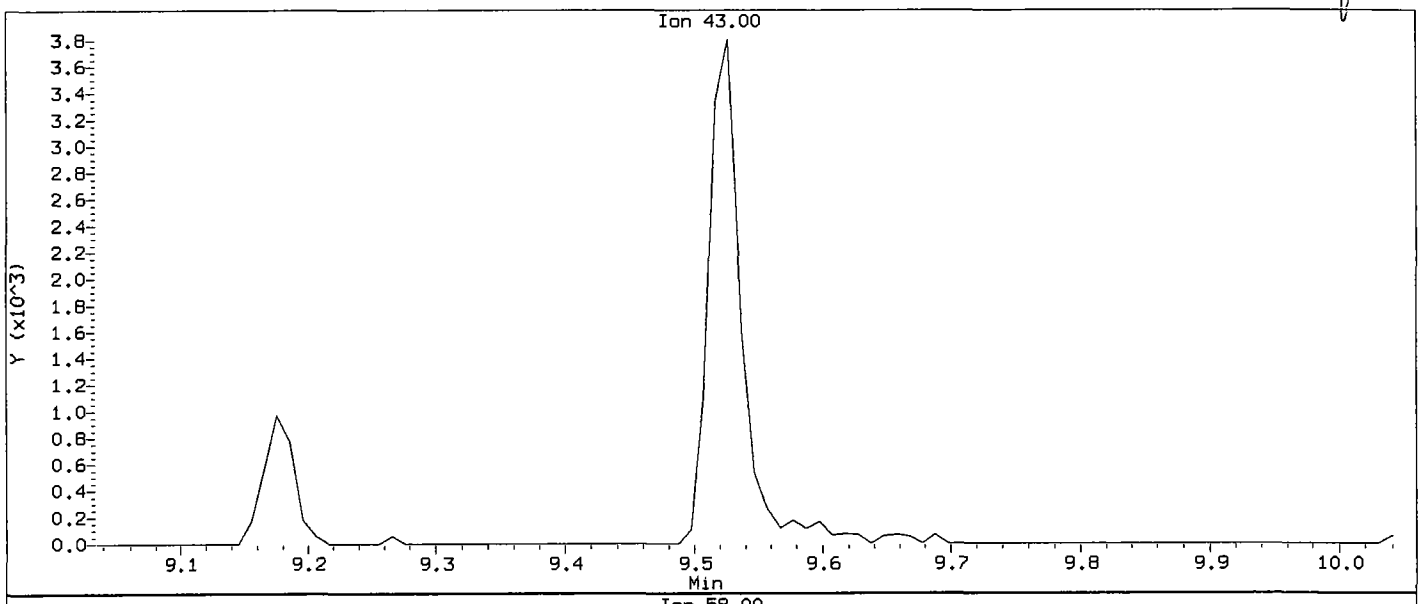
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

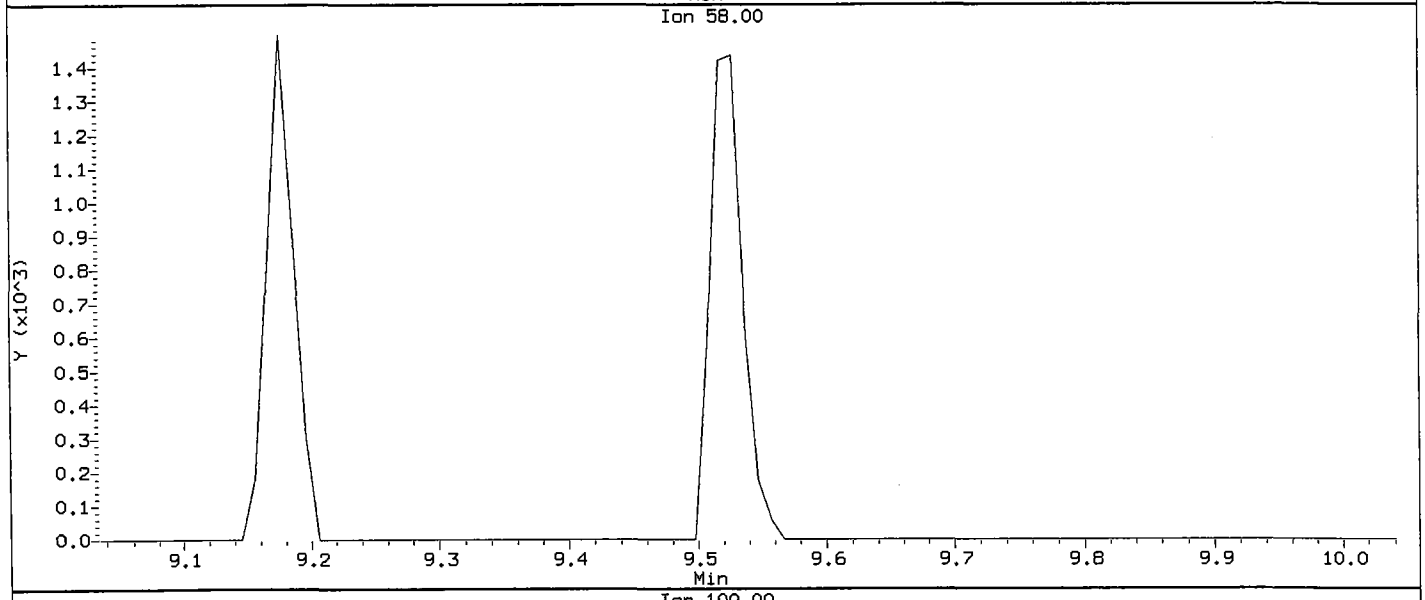
5. Other _____

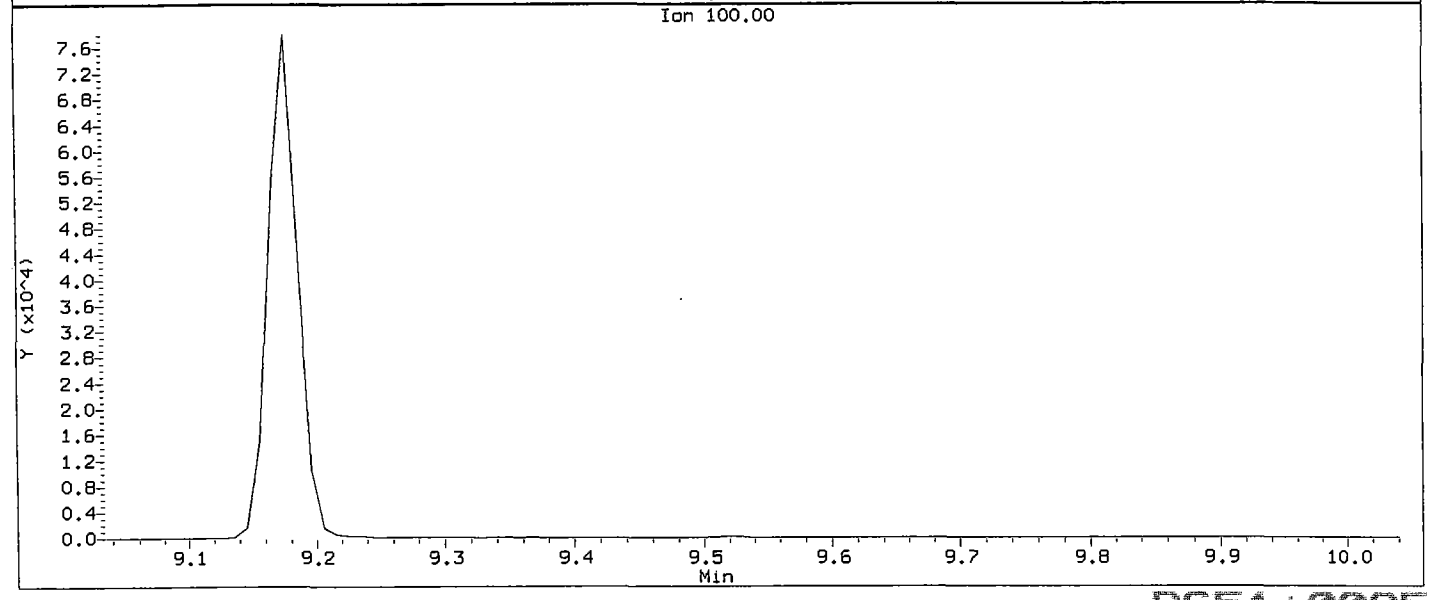
Analyst: _____ Date: 7/12/10

Data File: /chem1/finn5.i/23JUL10.b/0010723.d/0010723.LG
Injection Date: 23-JUL-2010 20:28
Instrument: finn5.i
Client Sample ID: VSTD001

Compound: 2-Hexanone
CAS Number:

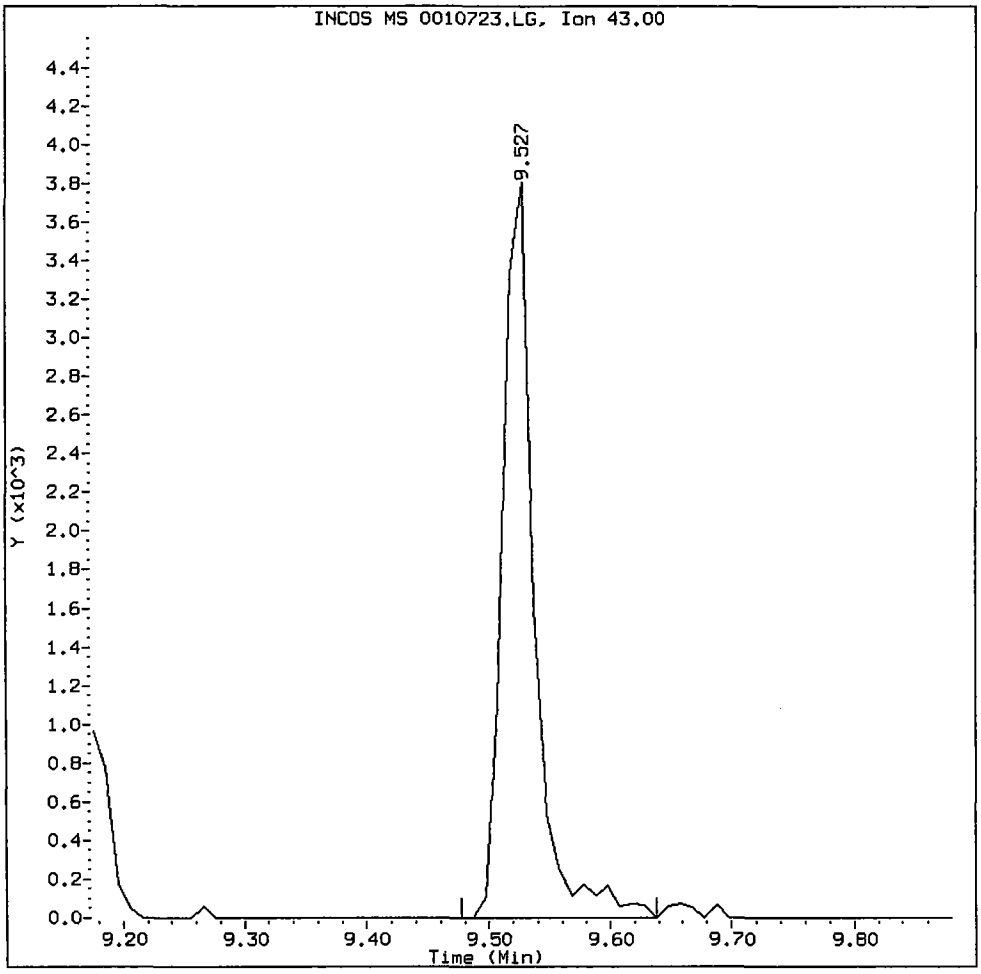






IC0723, /chem1/finn5.i/23JUL10.b/0010723.d

2-Hexanone Amount: 5.98 Area: 6953



MANUAL INTEGRATION for 2-Hexanone

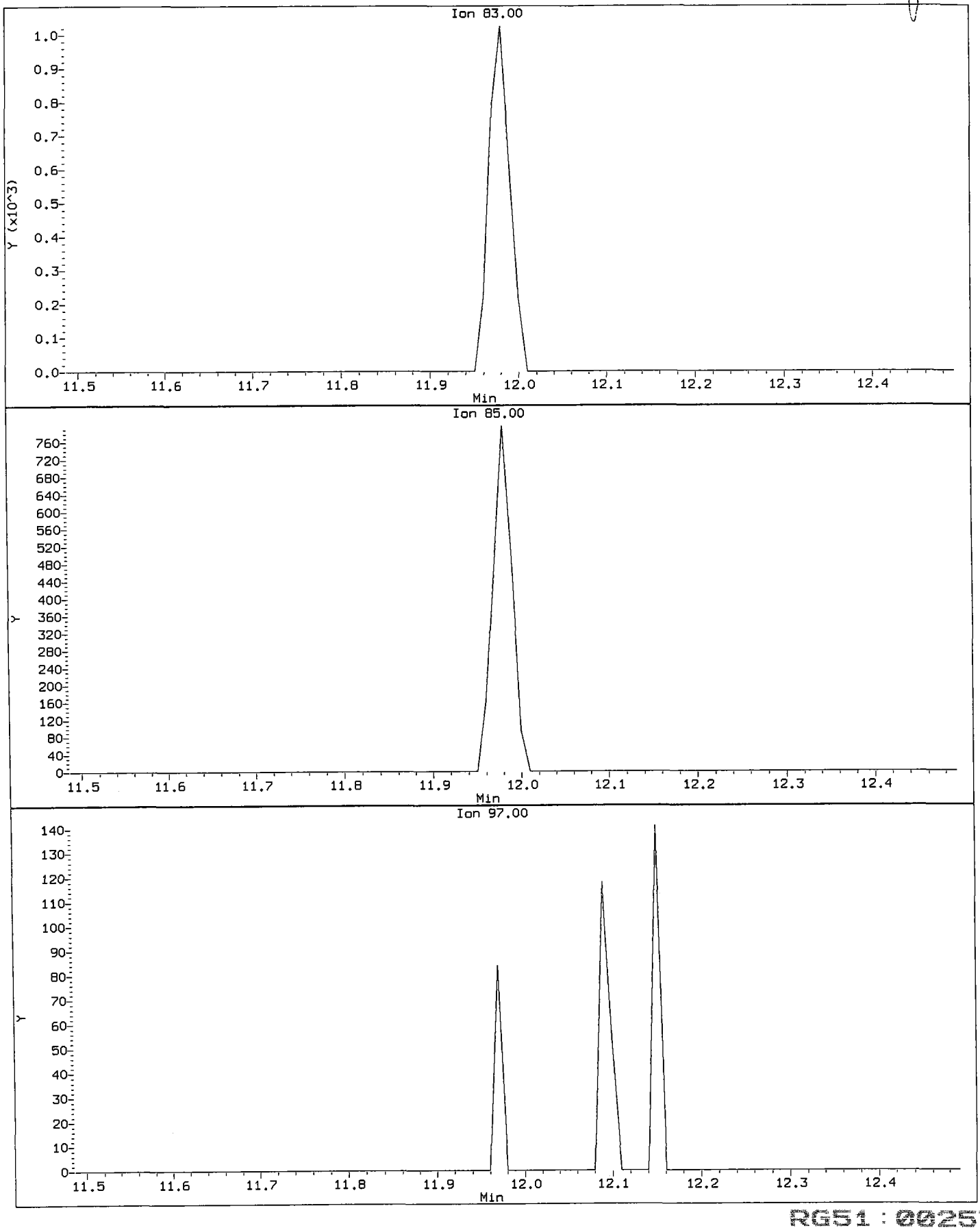
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 7/26/10

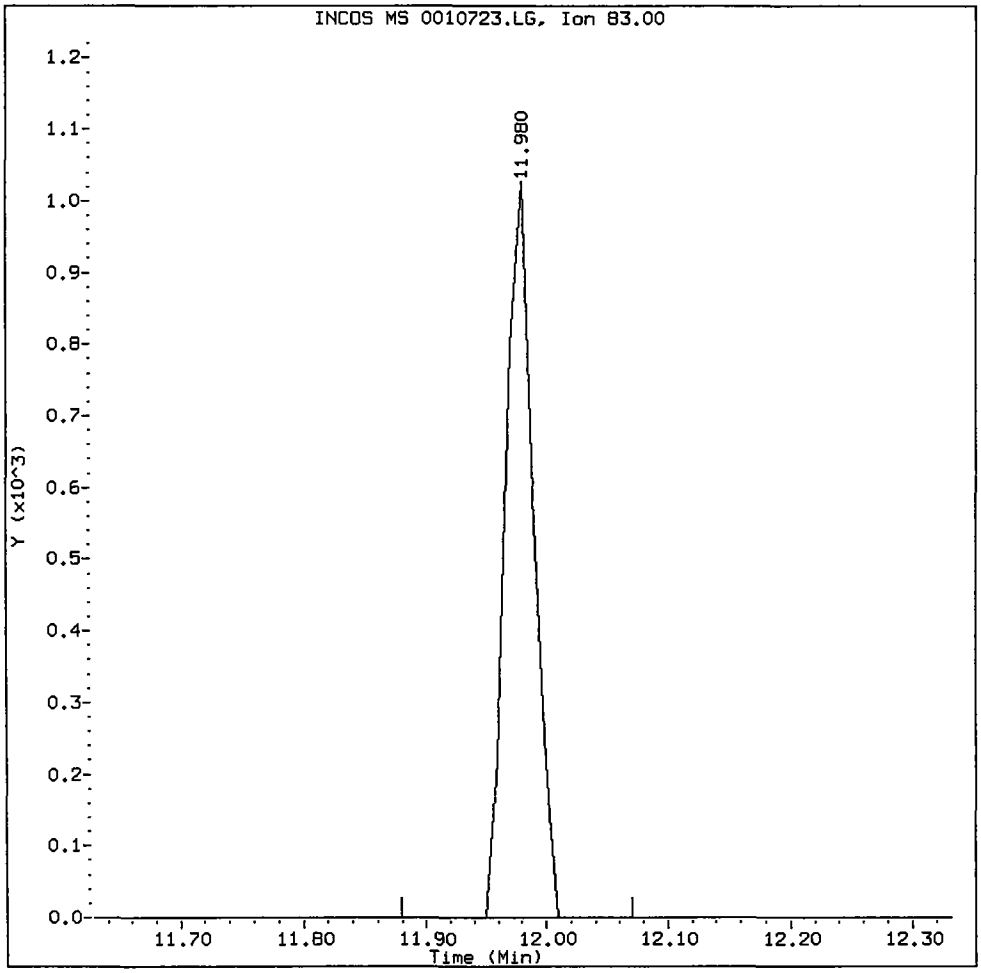
Data File: /chem1/finn5.i/23JUL10.b/0010723.d/0010723.LG
Injection Date: 23-JUL-2010 20:28
Instrument: finn5.i
Client Sample ID: VSTD001

Compound: 1,1,2,2-Tetrachloroethane
CAS Number:



IC0723, /chem1/finn5.i/23JUL10.b/0010723.d

1,1,2,2-Tetrachloroethane Amount: 1.23 Area: 1717



MANUAL INTEGRATION for 1,1,2,2-Tetrachloroethane

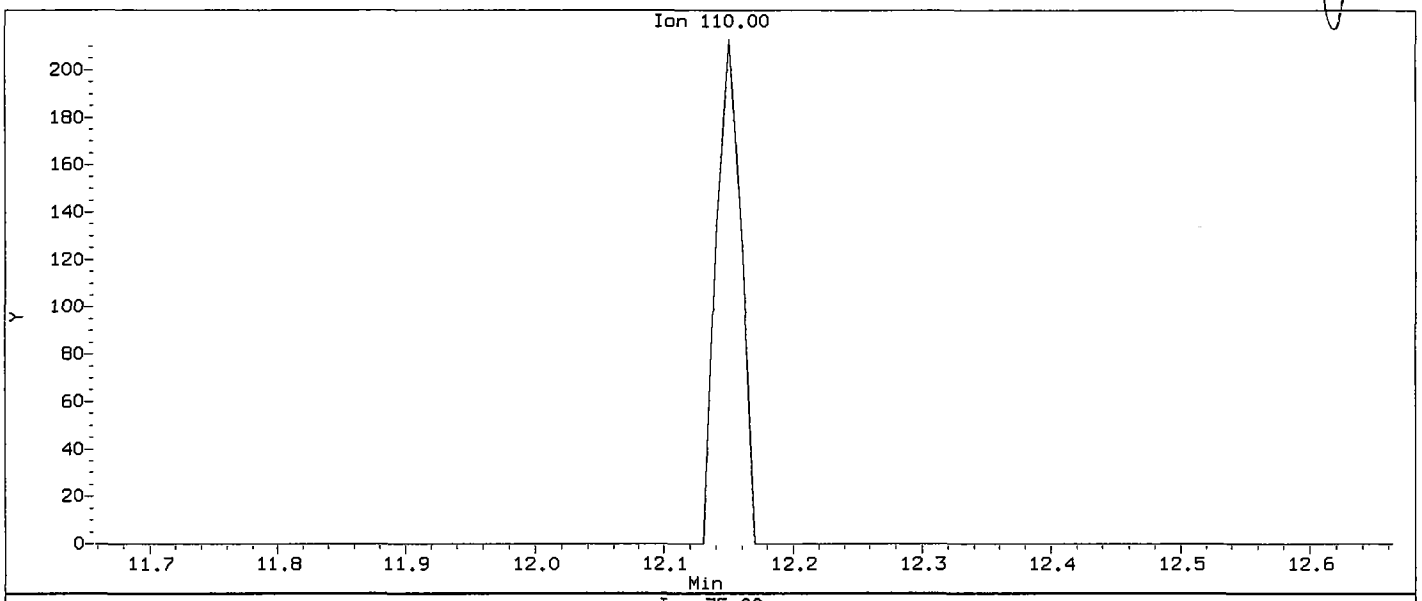
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

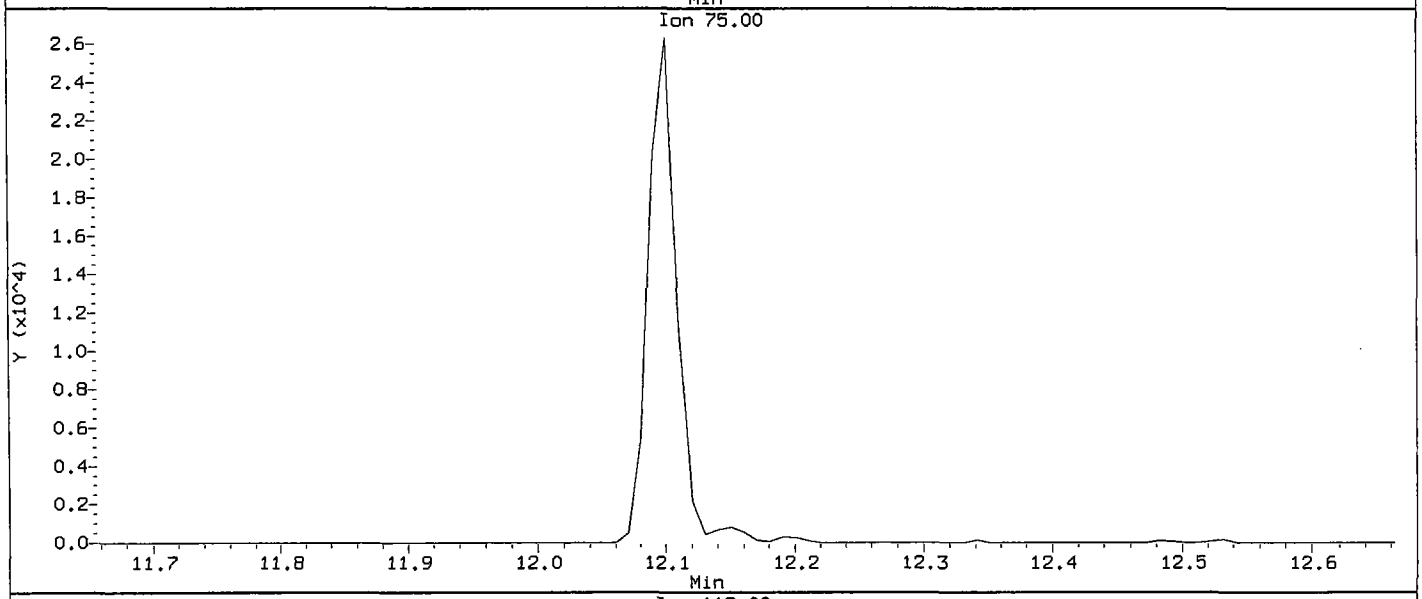
5. Other _____

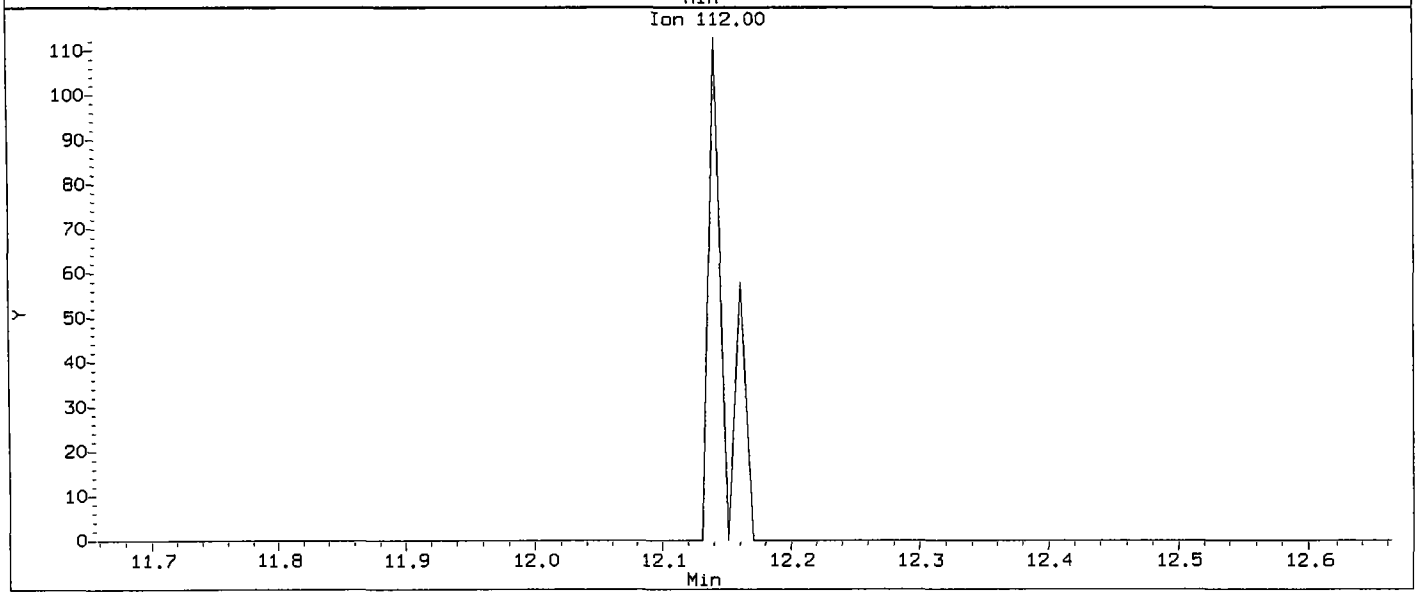
Analyst: _____ Date: 2/24/10

Data File: /chem1/finn5.i/23JUL10.b/0010723.d/0010723.LG
Injection Date: 23-JUL-2010 20:28
Instrument: finn5.i
Client Sample ID: VSTD001

Compound: 1,2,3-Trichloropropane
CAS Number:

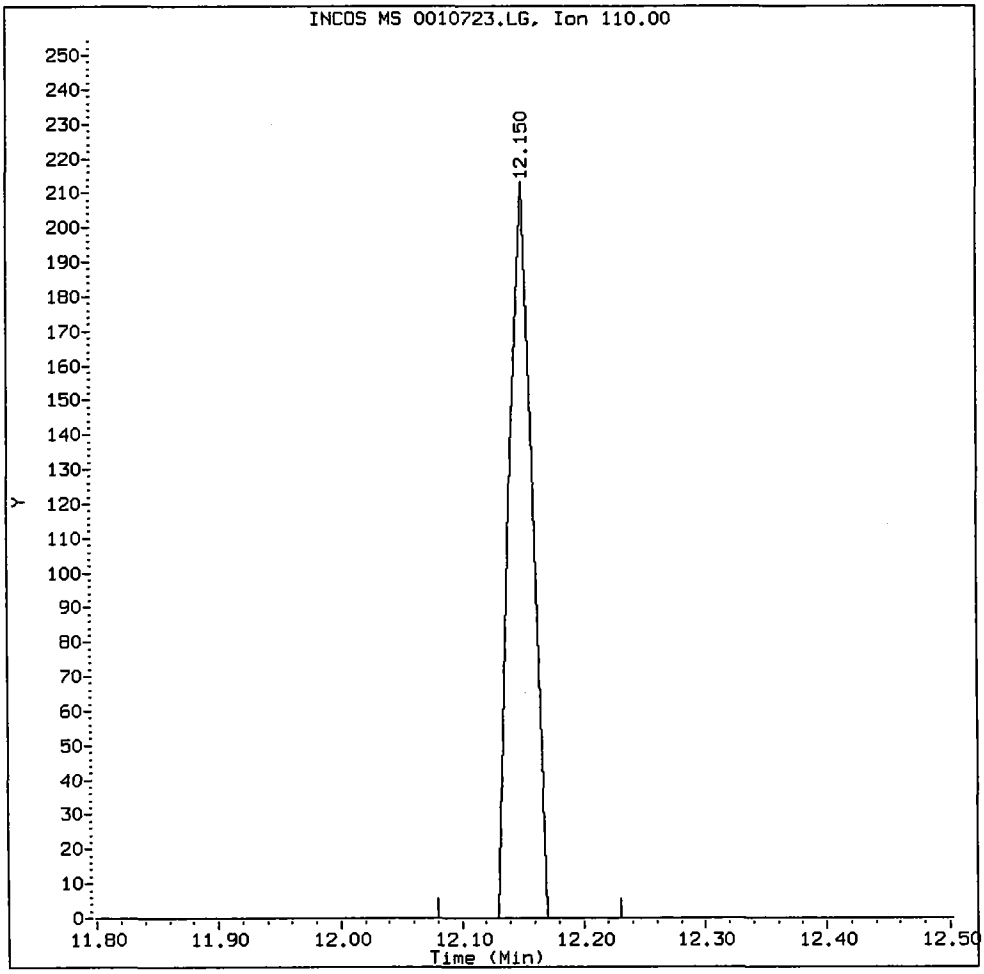






IC0723, /chem1/finn5.i/23JUL10.b/0010723.d

1,2,3-Trichloropropane Amount: 1.02 Area: 282



MANUAL INTEGRATION for 1,2,3-Trichloropropane

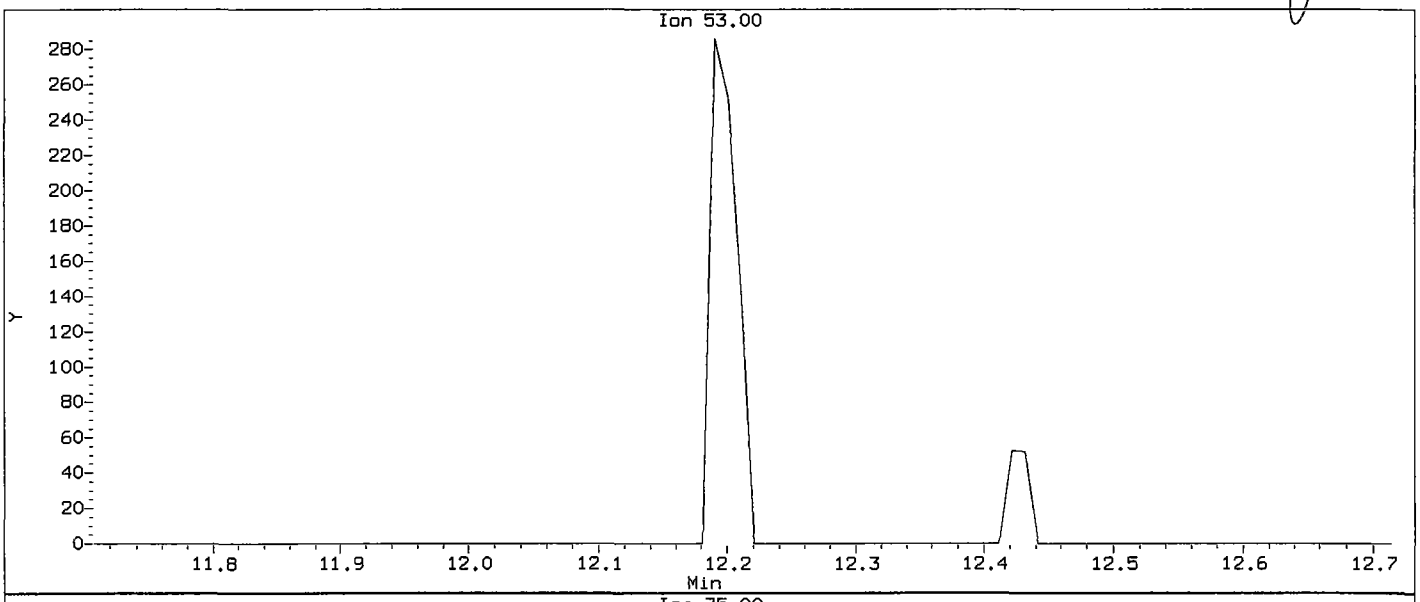
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

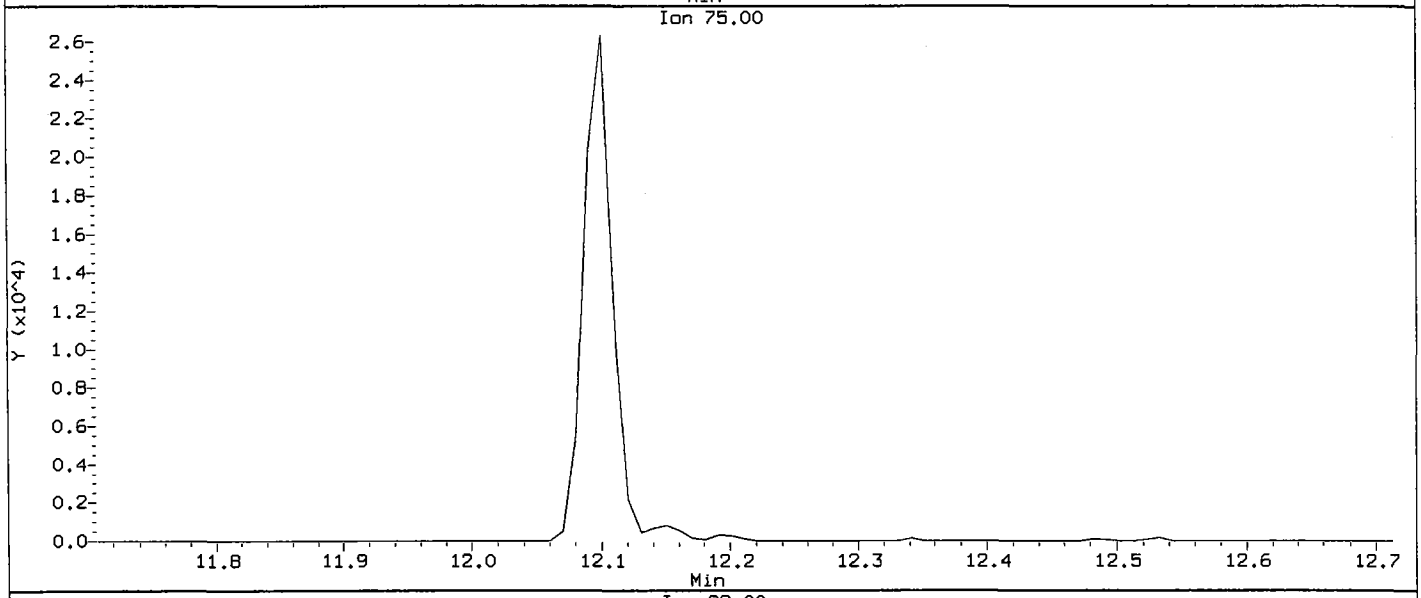
5. Other _____

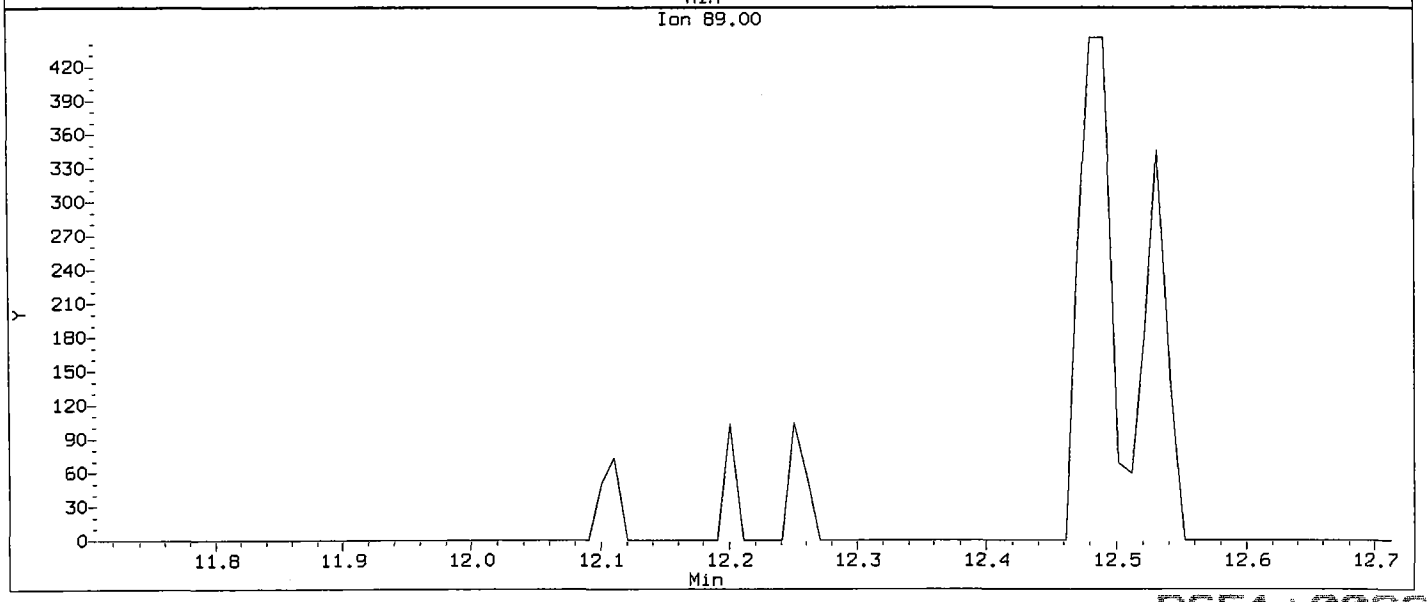
Analyst: _____ Date: 7/26/10

Data File: /chem1/finn5.i/23JUL10.b/0010723.d/0010723.LG
Injection Date: 23-JUL-2010 20:28
Instrument: finn5.i
Client Sample ID: VSTD001

Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:

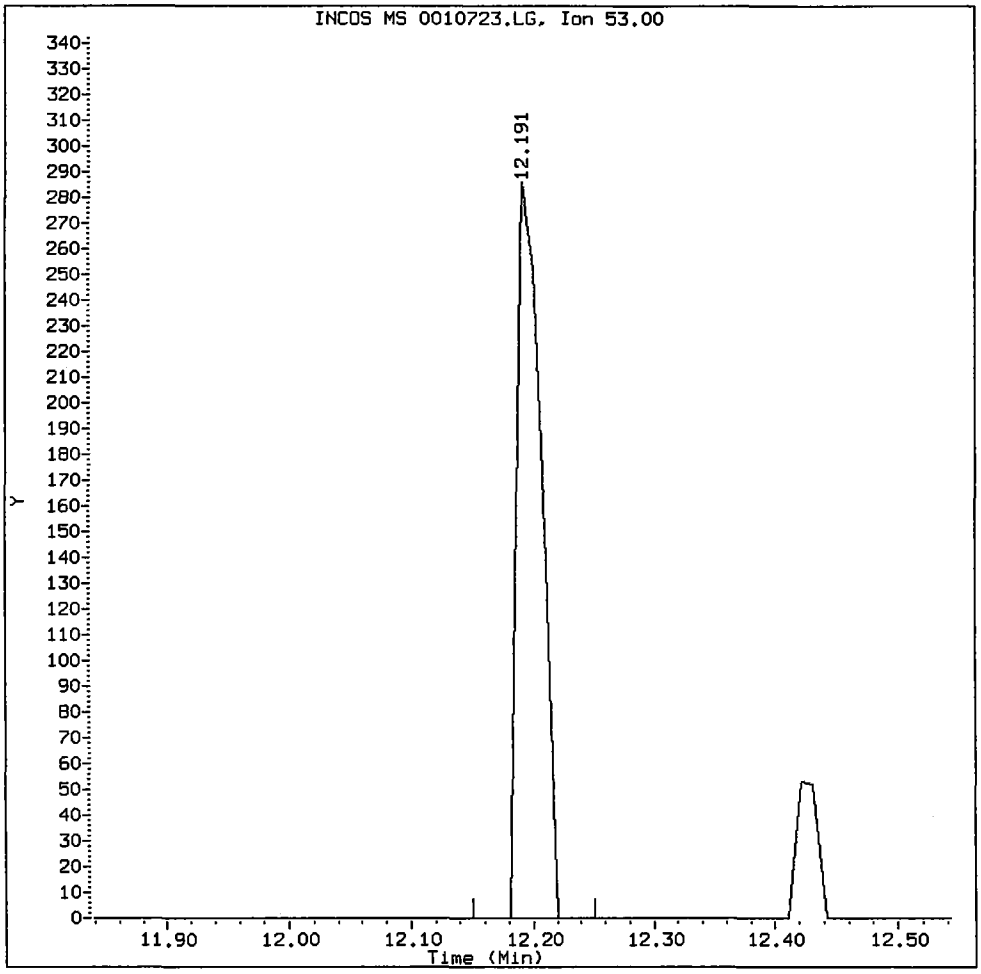






IC0723, /chem1/finn5.i/23JUL10.b/0010723.d

Trans-1,4-Dichloro 2-Butene Amount: 0.95 Area: 407



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 7/26/10

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/0020723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD002
Inj Date : 23-JUL-2010 20:02
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:28 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 20:02 Cal File: 0020723.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.005	(0.454)	3205	2.00000	2.133
2 Chloromethane	50	3.306	3.306	(0.499)	9090	2.00000	2.249
3 Vinyl Chloride	62	3.427	3.427	(0.517)	6731	2.00000	2.106(Q)
4 Bromomethane	94	3.909	3.909	(0.590)	3943	2.00000	2.272
5 Chloroethane	64	3.980	3.980	(0.601)	5065	2.00000	2.426
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	7223	2.00000	2.338
7 Acrolein	56	4.623	4.623	(0.698)	4563	10.0000	11.841
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.701)	5478	2.00000	2.265
9 Acetone	43	4.673	4.673	(0.706)	7408	10.0000	11.426(M)
10 1,1-Dichloroethene	96	4.834	4.834	(0.730)	4722	2.00000	2.152
11 Bromoethane	108	5.055	5.055	(0.763)	3446	2.00000	2.120
12 Iodomethane	142	5.156	5.156	(0.778)	4941	2.00000	1.904
13 Methylene Chloride	84	5.266	5.266	(0.795)	6472	2.00000	2.619
14 Acrylonitrile	53	5.347	5.347	(0.807)	1125	2.00000	1.965(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	6868	2.00000	2.035 (Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	15337	2.00000	2.253 (Q)
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	3823	2.00000	2.044
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	6836	2.00000	2.087
	19 1,1-Dichloroethane	63	5.929	5.929	(0.895)	7309	2.00000	2.124
	20 2-Butanone	43	6.281	6.281	(0.948)	7636	10.0000	10.467
	21 2,2-Dichloropropane	77	6.452	6.452	(0.974)	4155	2.00000	1.974
	22 Cis-1,2-Dichloroethene	96	6.492	6.492	(0.980)	3254	2.00000	1.974
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	115854	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	6004	2.00000	2.148 (Q)
	26 Bromochloromethane	128	6.804	6.804	(1.027)	1497	2.00000	1.913 (Q)
$	25 Dibromofluoromethane	111	6.834	6.834	(1.032)	72845	50.0000	52.755 (Q)
	27 1,1,1-Trichloroethane	97	7.025	7.025	(1.061)	4331	2.00000	1.992
	29 1,1-Dichloropropene	75	7.176	7.176	(0.941)	4580	2.00000	2.033
	30 Carbon Tetrachloride	117	7.286	7.286	(0.955)	4142	2.00000	2.114
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	81644	50.0000	54.036
	32 1,2-Dichloroethane	62	7.387	7.387	(0.968)	4173	2.00000	2.110
	33 Benzene	78	7.437	7.437	(0.975)	11737	2.00000	2.154
*	34 1,4-Difluorobenzene	114	7.628	7.628	(1.000)	165926	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.050)	3316	2.00000	2.077
	36 1,2-Dichloropropane	63	8.161	8.161	(1.070)	3461	2.00000	2.015
	37 Bromodichloromethane	83	8.402	8.402	(1.101)	3933	2.00000	2.142
	39 Dibromomethane	93	8.472	8.472	(1.111)	1720	2.00000	2.017
	40 2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	941	2.00000	1.564 (Q)
	41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.134)	4544	10.0000	10.360 (Q)
	42 Cis 1,3-dichloropropene	75	8.904	8.904	(1.167)	3760	2.00000	1.875
$	43 d8-Toluene	98	9.186	9.186	(1.204)	190730	50.0000	52.314
	44 Toluene	92	9.266	9.266	(1.215)	7331	2.00000	2.268
	45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.232)	3132	2.00000	1.858
	46 2-Hexanone	43	9.527	9.527	(0.884)	12031	10.0000	10.227 (M)
	47 1,1,2-Trichloroethane	97	9.578	9.578	(1.256)	1959	2.00000	1.946
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	4110	2.00000	2.029
	49 Tetrachloroethene	166	9.960	9.960	(0.924)	3034	2.00000	1.898
	50 Chlorodibromomethane	129	10.161	10.161	(0.942)	2530	2.00000	1.857
	51 1,2-Dibromoethane	107	10.382	10.382	(1.361)	2176	2.00000	2.018 (T)
*	52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	143906	50.0000	
	53 Chlorobenzene	112	10.824	10.824	(1.004)	7227	2.00000	2.141
	54 Ethyl Benzene	91	10.854	10.854	(1.007)	12527	2.00000	2.195
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	2668	2.00000	2.065
	56 m,p-xylene	106	10.934	10.934	(1.014)	8069	4.00000	3.868 (Q)
	57 o-Xylene	106	11.427	11.427	(1.060)	3867	2.00000	1.783
	58 Styrene	104	11.457	11.457	(1.062)	6001	2.00000	1.790
	59 Isopropyl Benzene	105	11.809	11.809	(0.877)	10149	2.00000	2.058
	60 Bromoform	173	11.869	11.869	(0.881)	1646	2.00000	2.076
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	3293	2.00000	2.312
$	62 4-Bromofluorobenzene	95	12.100	12.100	(1.122)	80106	50.0000	47.564
	63 1,2,3-Trichloropropane	110	12.150	12.150	(0.902)	662	2.00000	2.346 (QM)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	12.201	12.201	(0.906)	943	2.00000	2.154 (QM)
66	N-Propyl Benzene	91	12.261	12.261	(0.910)	12782	2.00000	2.008
67	Bromobenzene	156	12.351	12.351	(0.917)	2746	2.00000	1.998
68	1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.923)	7814	2.00000	1.952
69	2-Chloro Toluene	91	12.492	12.492	(0.928)	8221	2.00000	1.966
70	4-Chloro Toluene	91	12.532	12.532	(0.931)	8529	2.00000	2.127
71	T-Butyl Benzene	119	12.844	12.844	(0.954)	6991	2.00000	2.042
72	1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	7457	2.00000	1.892
73	S-Butyl Benzene	105	13.085	13.085	(0.972)	10809	2.00000	1.919
74	4-Isopropyl Toluene	119	13.236	13.236	(0.983)	7447	2.00000	1.926
75	1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	4492	2.00000	1.913
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	73251	50.0000	
77	1,4-Dichlorobenzene	146	13.497	13.497	(1.002)	4608	2.00000	1.961
78	N-Butyl Benzene	91	13.718	13.718	(1.019)	8103	2.00000	1.941
$ 79	d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	67411	50.0000	50.594
80	1,2-Dichlorobenzene	146	13.939	13.939	(1.035)	4695	2.00000	2.104
81	1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.102)	613	2.00000	2.487
82	1,2,4-Trichlorobenzene	180	15.889	15.889	(1.180)	2979	2.00000	2.193
83	Hexachloro 1,3-Butadiene	225	16.040	16.040	(1.191)	2016	2.00000	2.204
84	Naphthalene	128	16.221	16.221	(1.204)	5145	2.00000	2.088
85	1,2,3-Trichlorobenzene	180	16.502	16.502	(1.225)	2989	2.00000	2.302

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0020723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD002
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	115854	-11.64
34 1,4-Difluorobenze	191559	95780	383118	165926	-13.38
52 d5-Chlorobenzene	161199	80600	322398	143906	-10.73
76 d4-1,4-Dichlorobe	88279	44140	176558	73251	-17.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.63	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

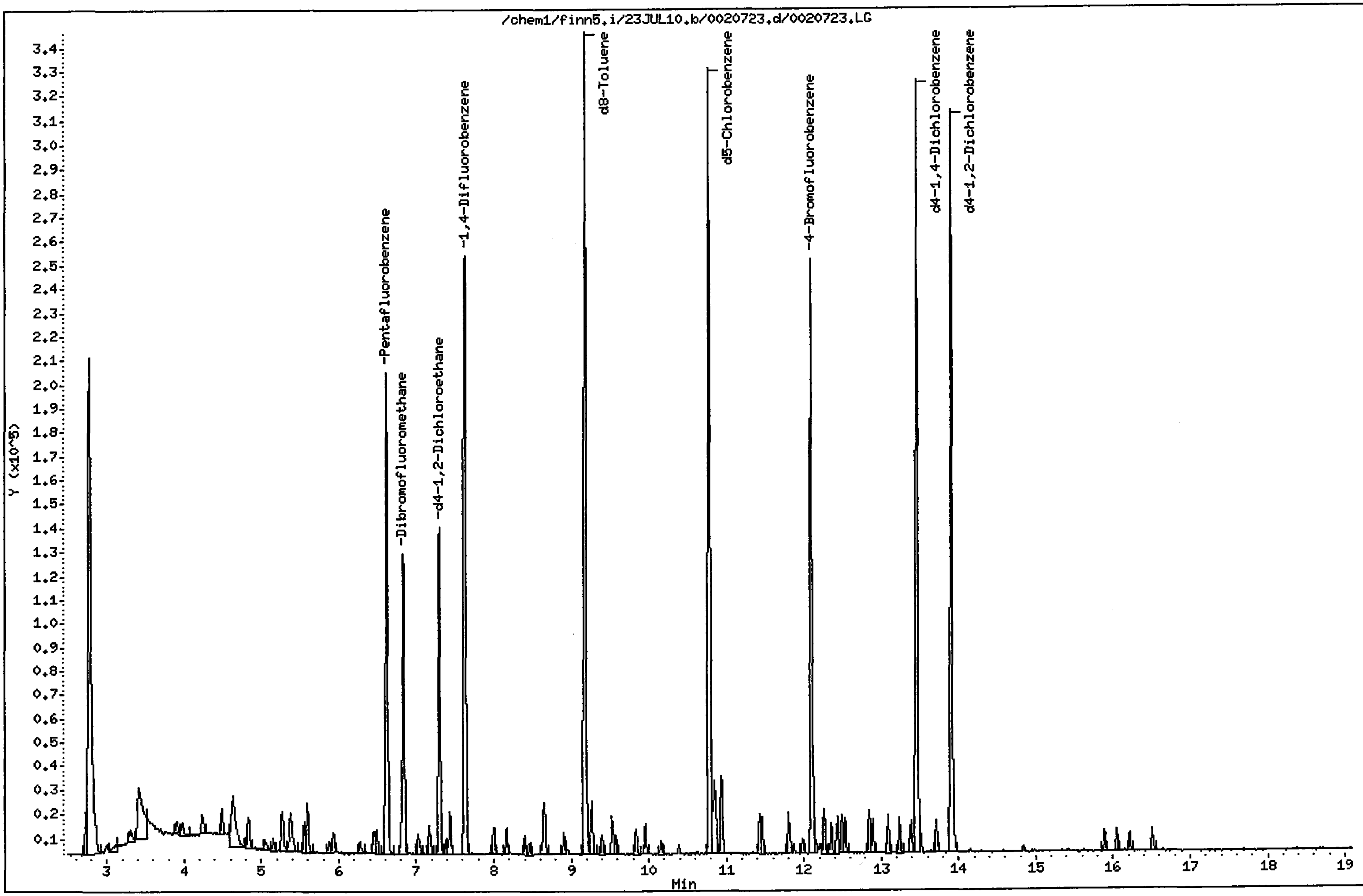
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/0020723.d
Date : 23-JUL-2010 20:02
Client ID: VSTD002
Sample Info: IC0723,5,5,0

Column phase: Rtx502.2

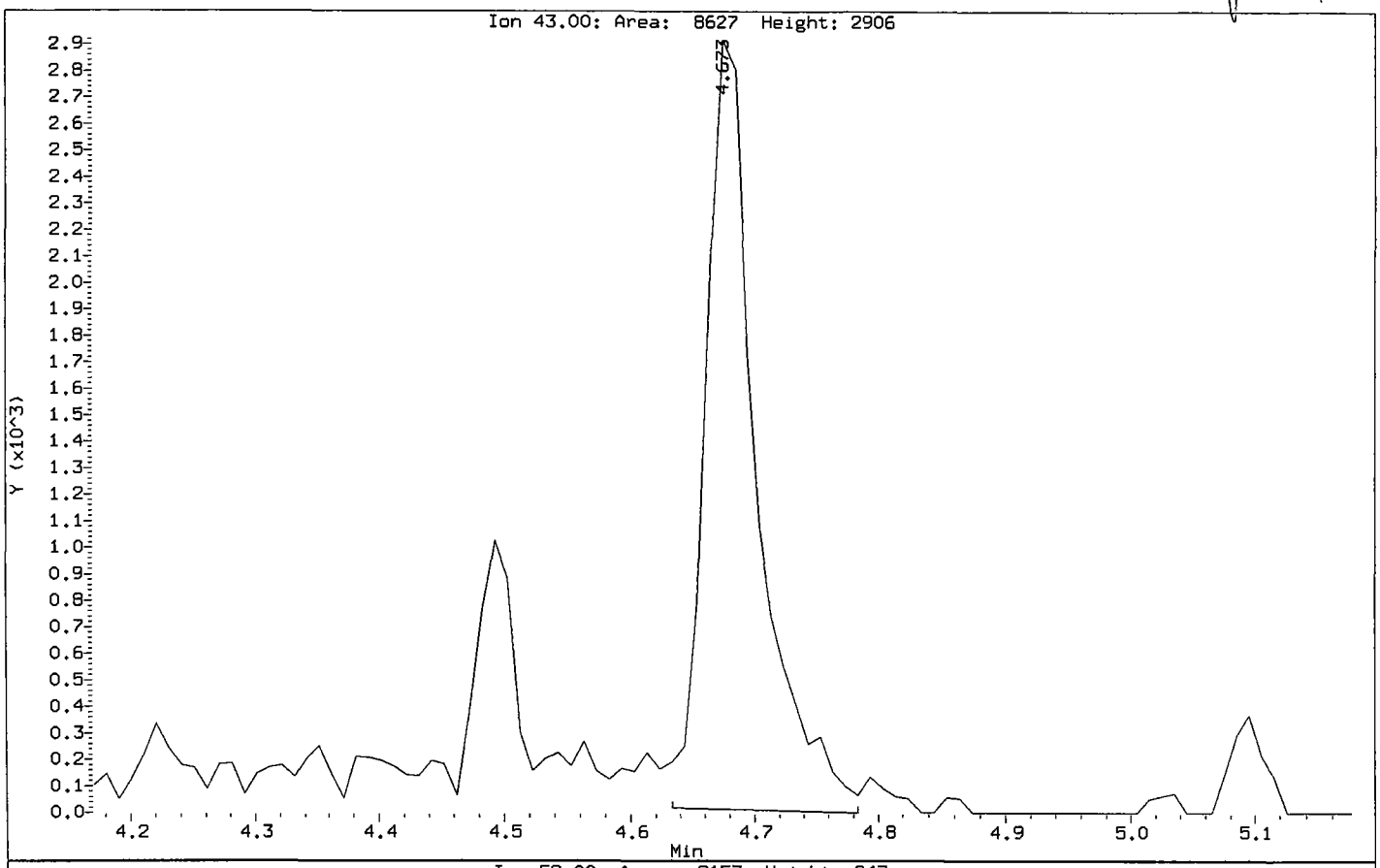
Instrument: finn5.i

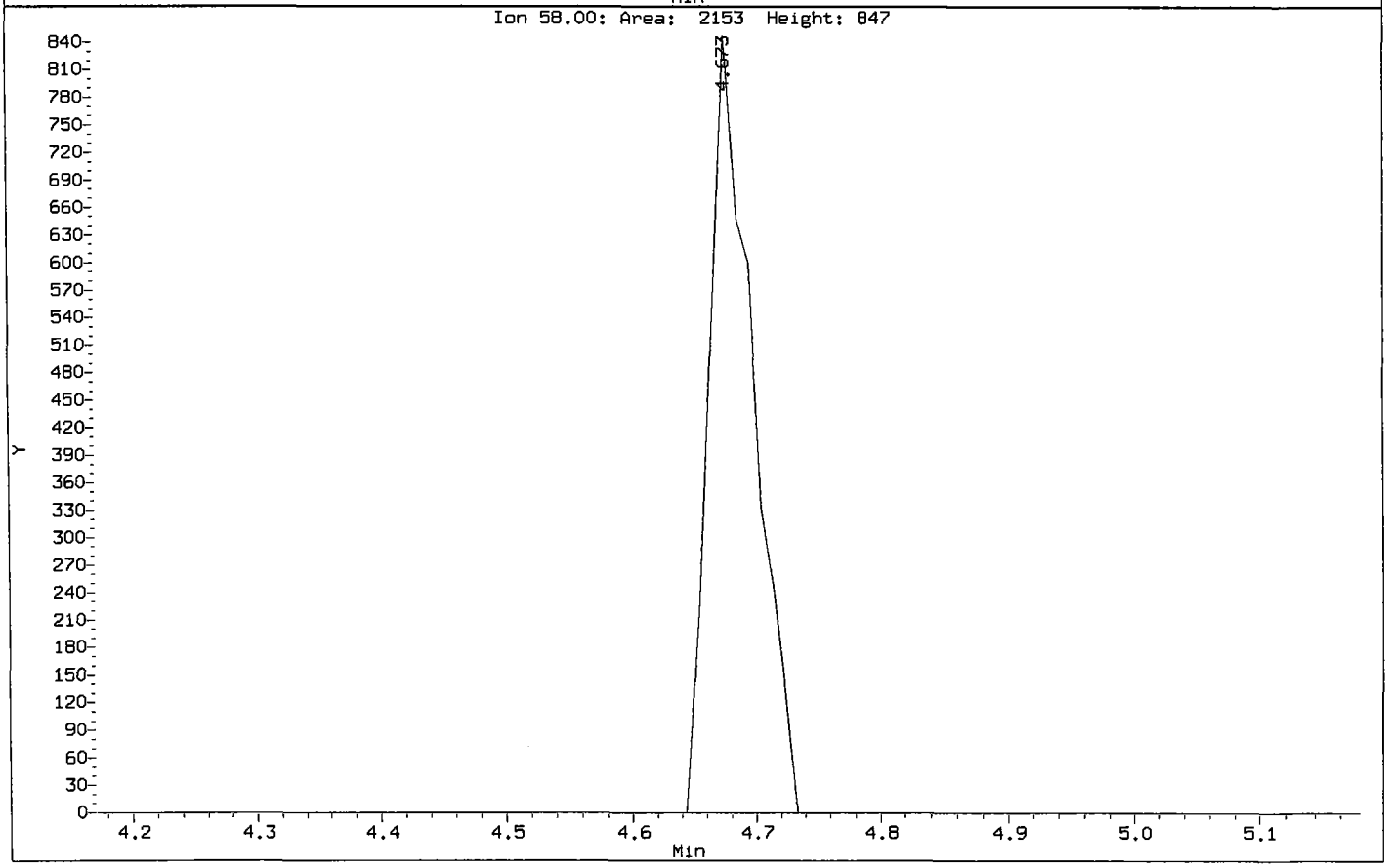
Operator: PB
Column diameter: 0.18



Data File: /chem1/finn5.i/23JUL10.b/0020723.d/0020723.LG
Injection Date: 23-JUL-2010 20:02
Instrument: finn5.i
Client Sample ID: VSTD002

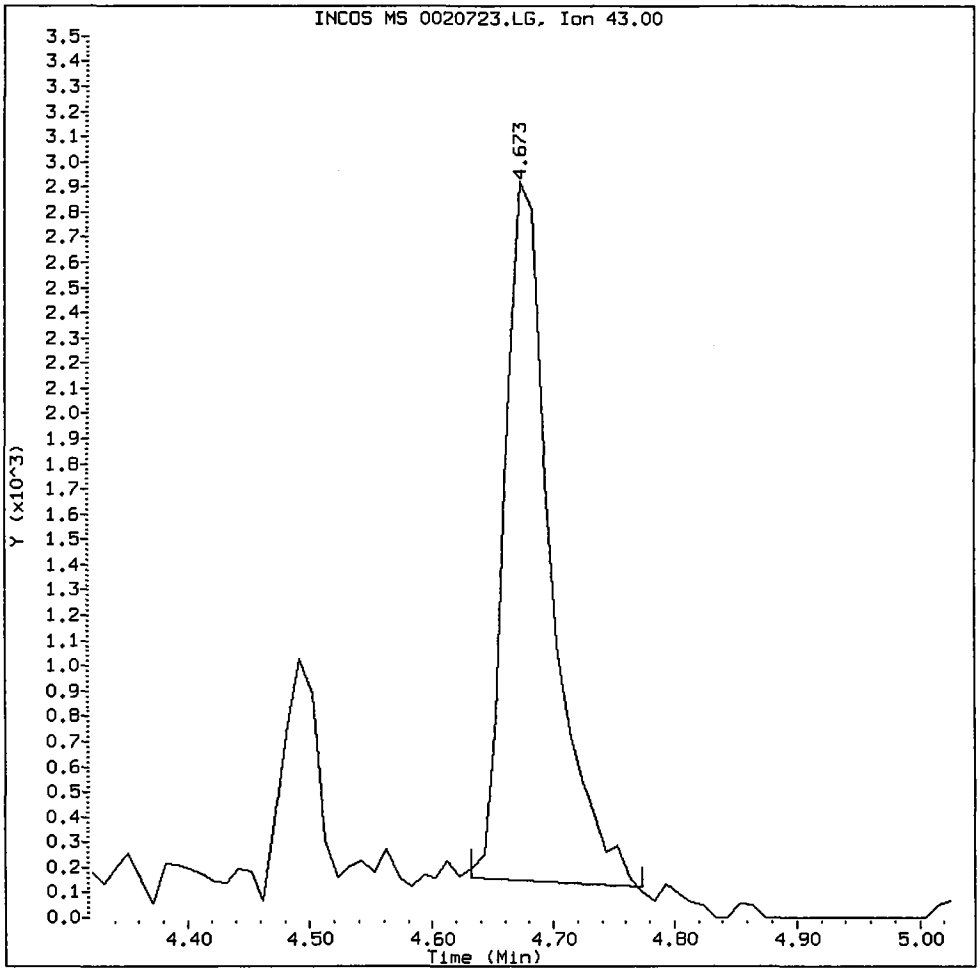
Compound: Acetone
CAS Number:





IC0723, /chem1/finn5.i/23JUL10.b/0020723.d

Acetone Amount: 11.43 Area: 7408



MANUAL INTEGRATION for Acetone

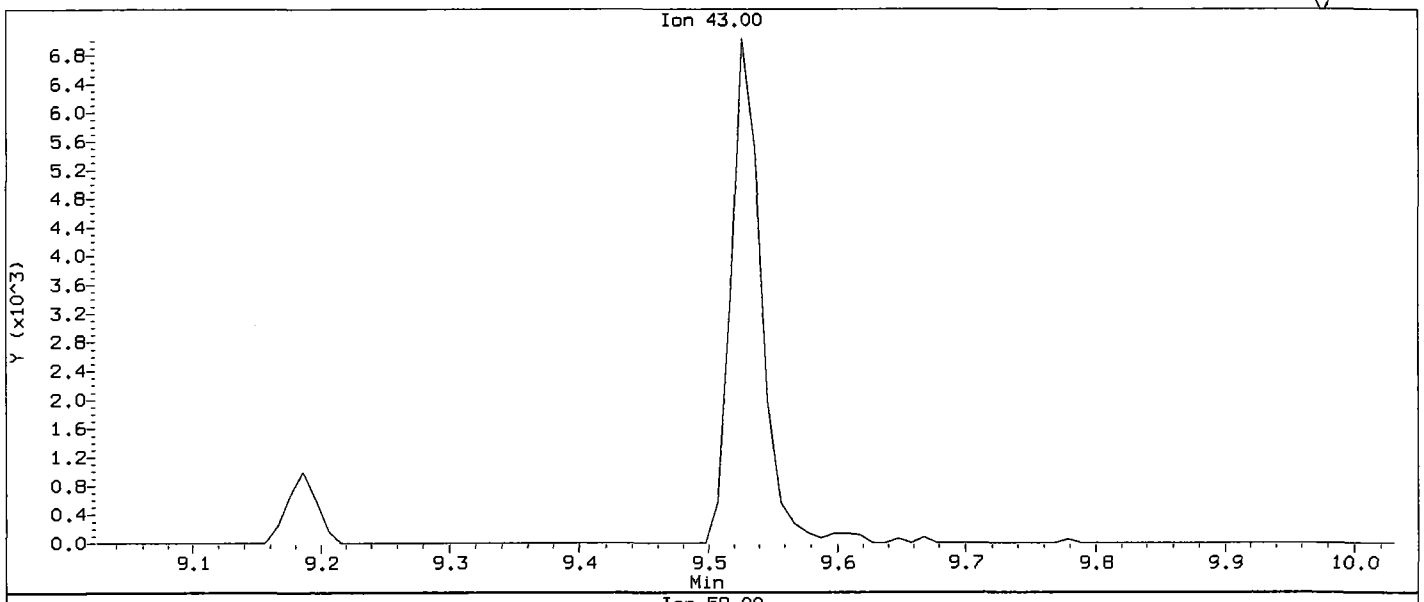
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

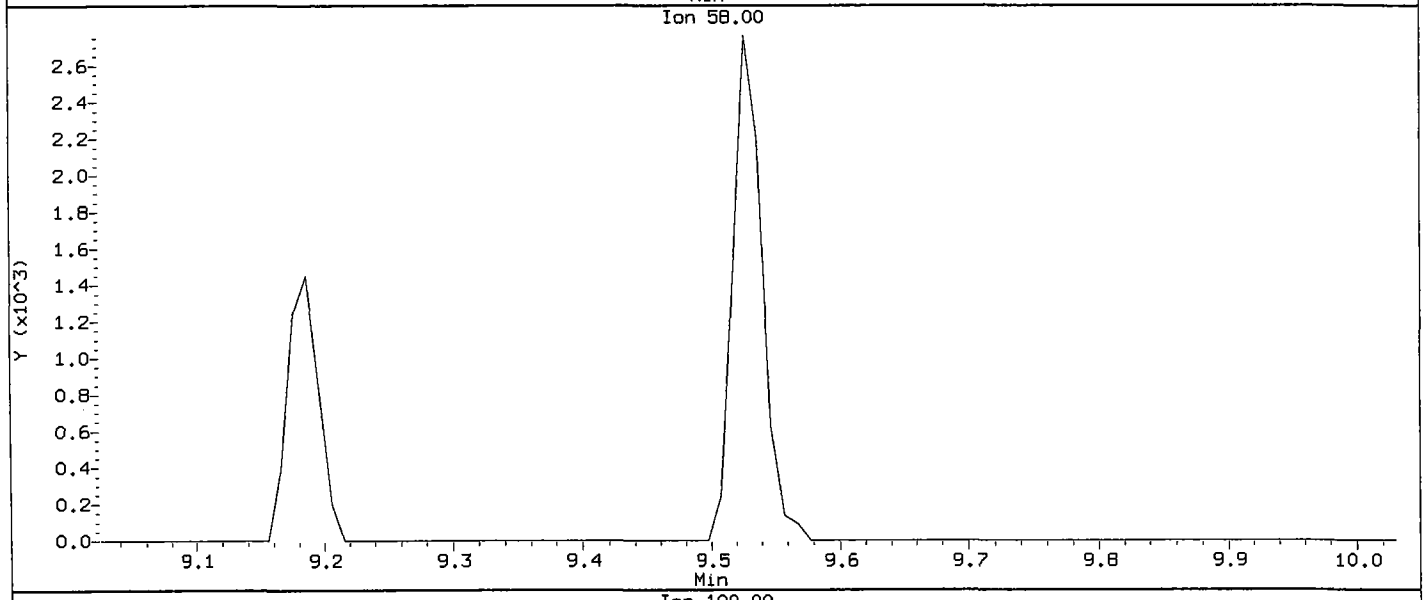
5. Other _____

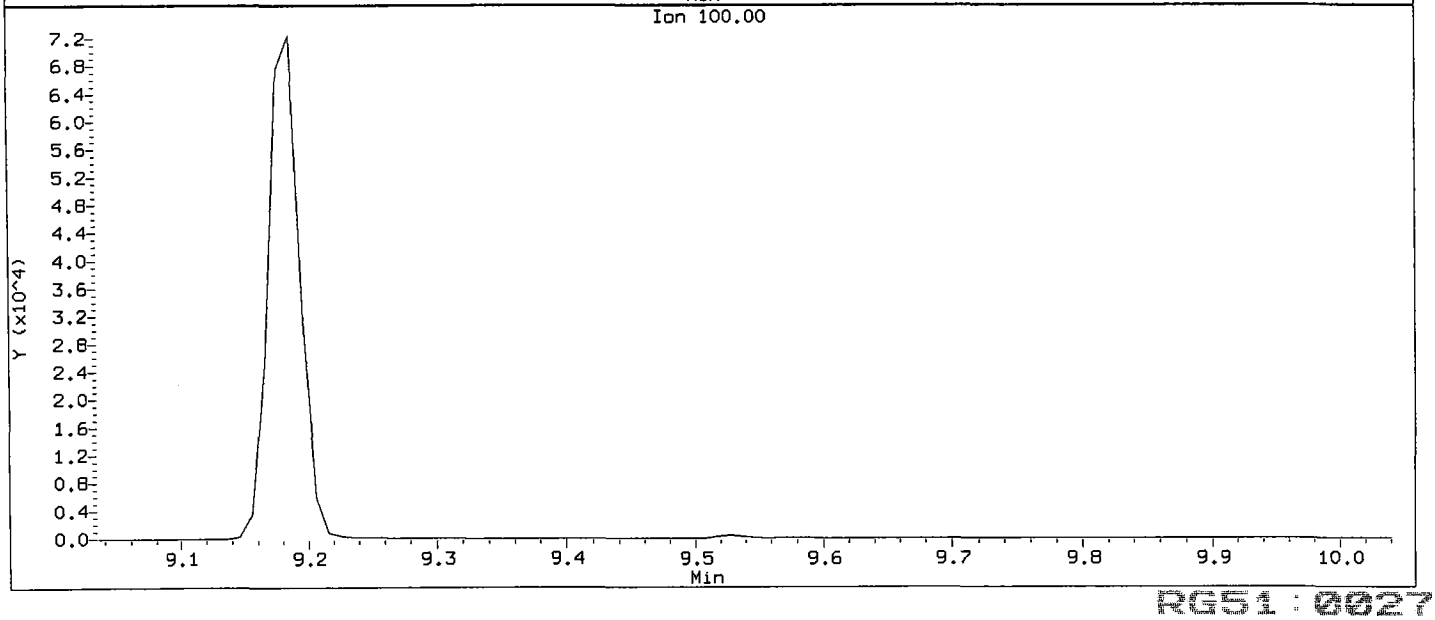
Analyst: _____ Date: 7/29/10

Data File: /chem1/finn5.i/23JUL10.b/0020723.d/0020723.LG
Injection Date: 23-JUL-2010 20:02
Instrument: finn5.i
Client Sample ID: VSTD002

Compound: 2-Hexanone
CAS Number:

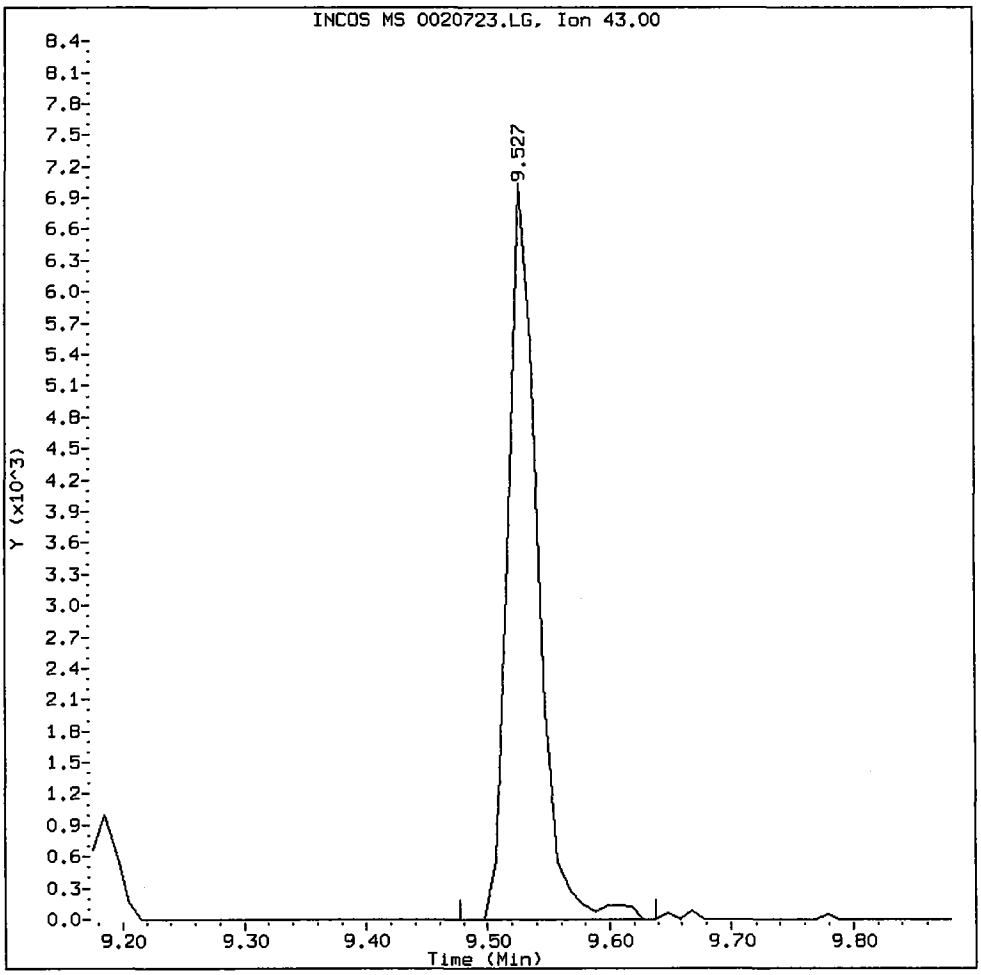






IC0723, /chem1/finn5.i/23JUL10.b/0020723.d

2-Hexanone Amount: 10.23 Area: 12031



MANUAL INTEGRATION for 2-Hexanone

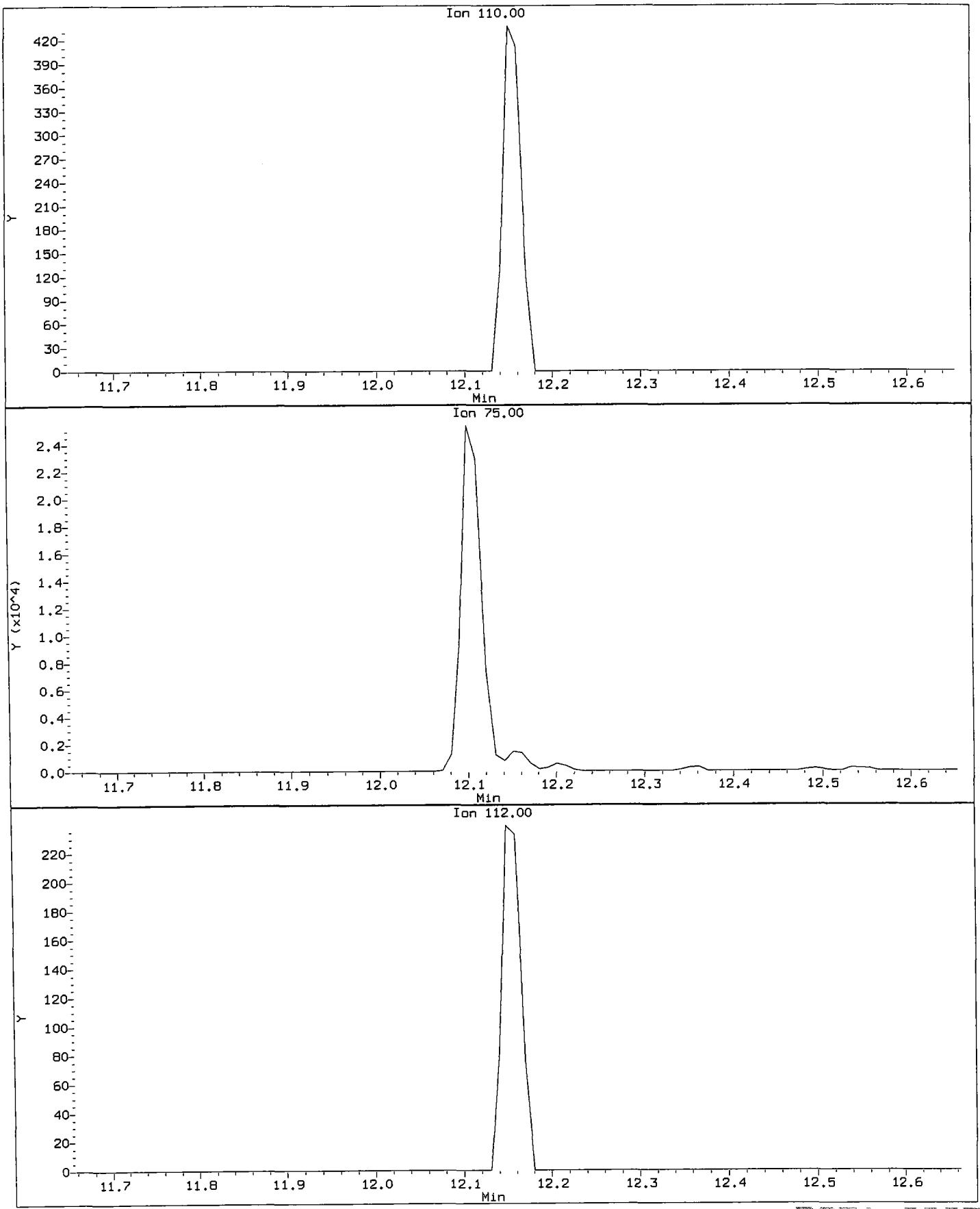
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 7/28/10

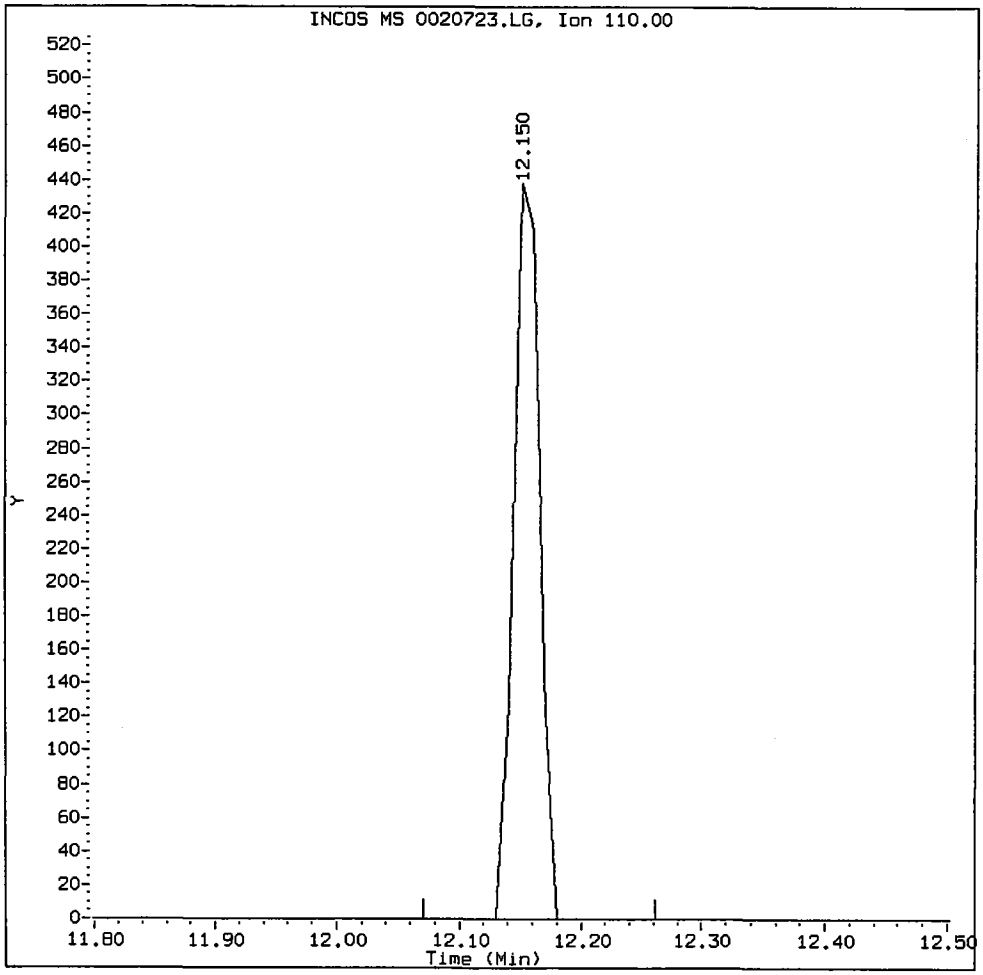
Data File: /chem1/finn5.i/23JUL10.b/0020723.d/0020723.LG
Injection Date: 23-JUL-2010 20:02
Instrument: finn5.i
Client Sample ID: VSTD002

Compound: 1,2,3-Trichloropropane
CAS Number:



IC0723, /chem1/finn5.i/23JUL10.b/0020723.d

1,2,3-Trichloropropane Amount: 2.35 Area: 662



MANUAL INTEGRATION for 1,2,3-Trichloropropane

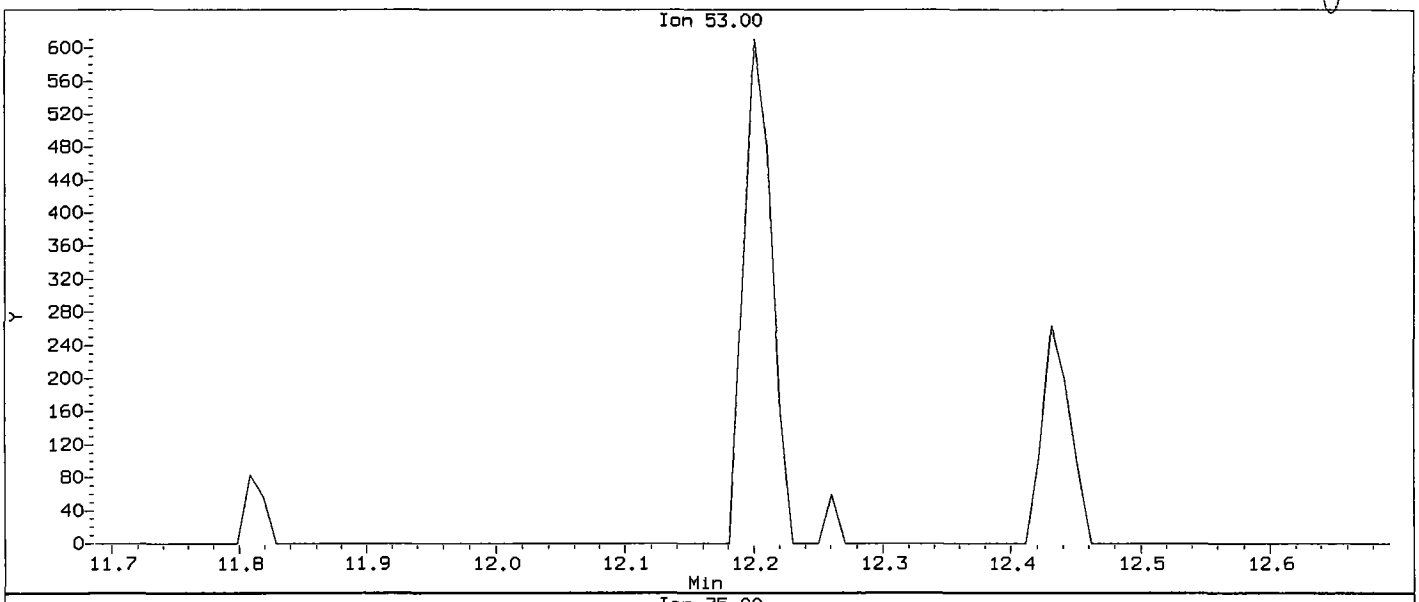
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

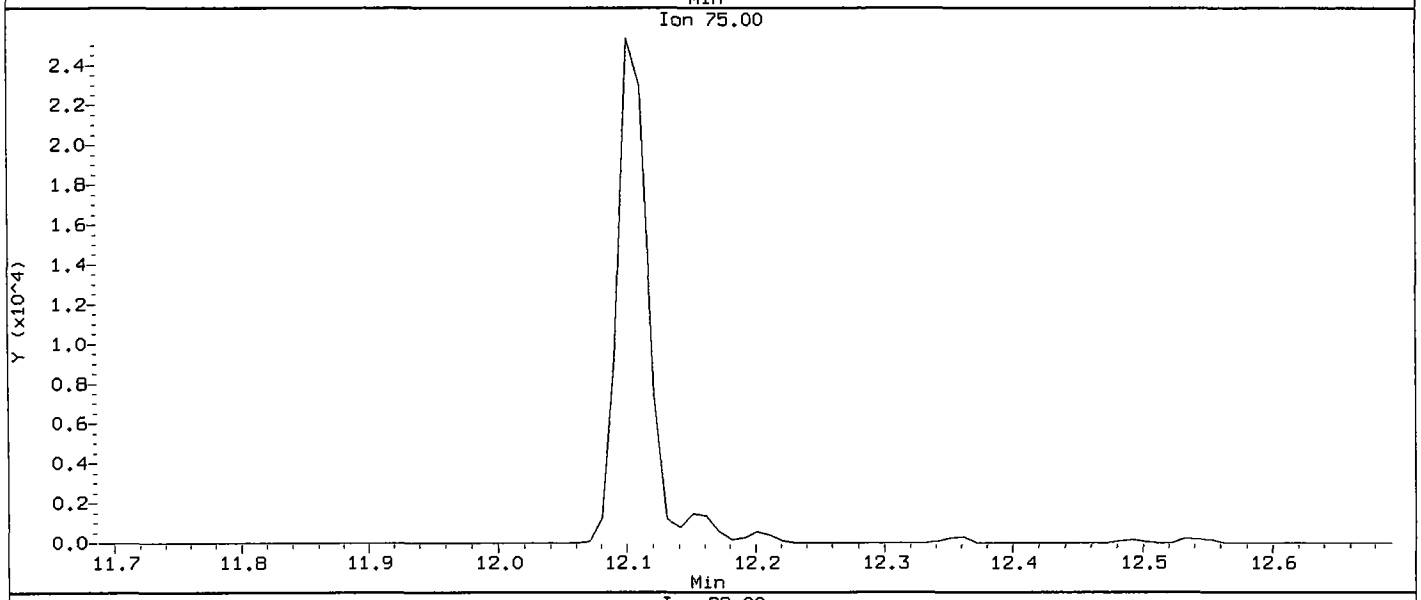
5. Other _____

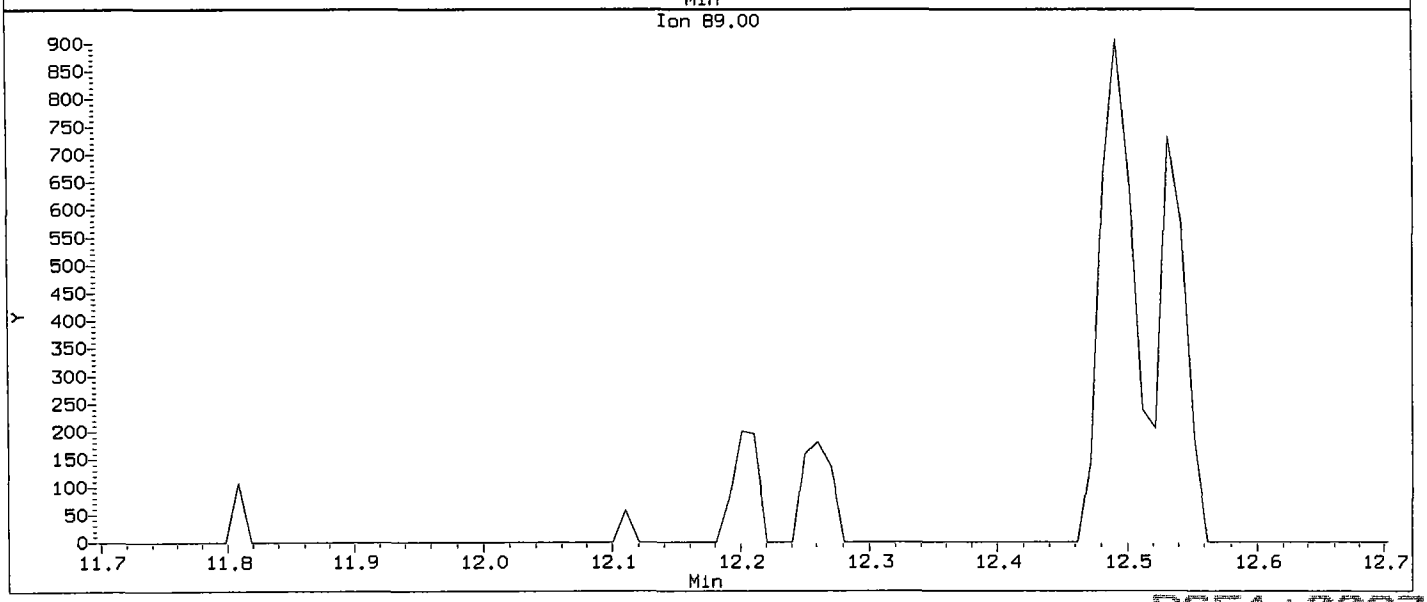
Analyst: _____ Date: 7/14/10

Data File: /chem1/finn5.i/23JUL10.b/0020723.d/0020723.LG
Injection Date: 23-JUL-2010 20:02
Instrument: finn5.i
Client Sample ID: VSTD002

Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:

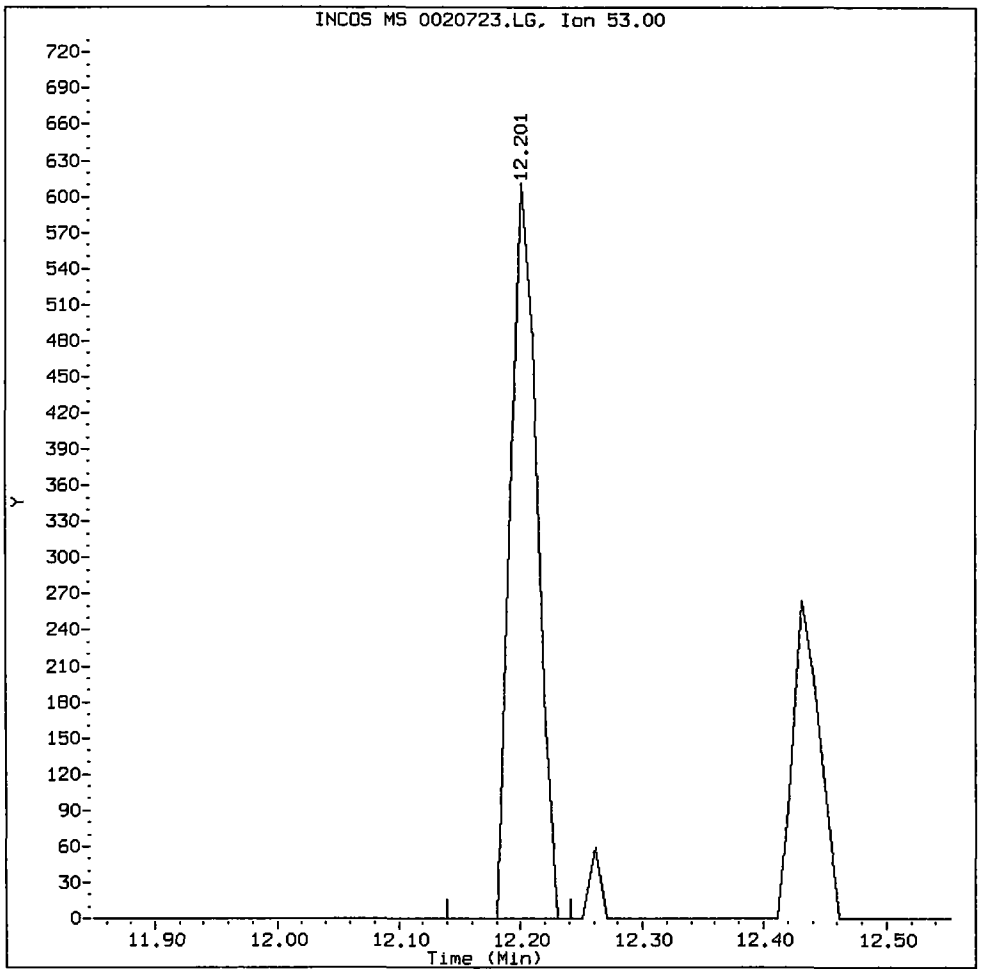






IC0723, /chem1/finn5.i/23JUL10.b/0020723.d

Trans-1,4-Dichloro 2-Butene Amount: 2.15 Area: 943



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 7/26/10

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/0050723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD005
Inj Date : 23-JUL-2010 19:35
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:28 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 19:35 Cal File: 0050723.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.005	(0.454)	7723	5.00000	5.089
2 Chloromethane	50	3.296	3.296	(0.498)	22440	5.00000	5.496
3 Vinyl Chloride	62	3.417	3.417	(0.516)	17710	5.00000	5.485(Q)
4 Bromomethane	94	3.899	3.899	(0.589)	9090	5.00000	5.184
5 Chloroethane	64	3.970	3.970	(0.599)	11561	5.00000	5.482
6 Trichlorofluoromethane	101	4.231	4.231	(0.639)	17611	5.00000	5.643
7 Acrolein	56	4.623	4.623	(0.698)	10358	25.0000	26.607
8 112Trichloro122Trifluoroethane	101	4.633	4.633	(0.700)	14091	5.00000	5.767
9 Acetone	43	4.673	4.673	(0.706)	18358	25.0000	28.028
10 1,1-Dichloroethene	96	4.834	4.834	(0.730)	12189	5.00000	5.498
11 Bromoethane	108	5.045	5.045	(0.762)	8530	5.00000	5.195
12 Iodomethane	142	5.146	5.146	(0.777)	13373	5.00000	5.102
13 Methylene Chloride	84	5.266	5.266	(0.795)	13925	5.00000	5.578
14 Acrylonitrile	53	5.347	5.347	(0.807)	3314	5.00000	5.730(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.387	5.387	(0.813)	18920	5.00000	5.549(Q)
	15 Carbon Disulfide	76	5.367	5.367	(0.810)	39738	5.00000	5.779
	17 Trans-1,2-Dichloroethene	96	5.548	5.548	(0.838)	9438	5.00000	4.995
	18 Vinyl Acetate	43	5.869	5.869	(0.886)	17895	5.00000	5.408
	19 1,1-Dichloroethane	63	5.929	5.929	(0.895)	18913	5.00000	5.441
	20 2-Butanone	43	6.271	6.271	(0.947)	20107	25.0000	27.282
	21 2,2-Dichloropropane	77	6.452	6.452	(0.974)	10921	5.00000	5.134
	22 Cis-1,2-Dichloroethene	96	6.492	6.492	(0.980)	8398	5.00000	5.043(Q)
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	117041	50.0000	
	24 Chloroform	83	6.633	6.633	(1.002)	15400	5.00000	5.454(Q)
	26 Bromochloromethane	128	6.804	6.804	(1.027)	4294	5.00000	5.431(Q)
$	25 Dibromofluoromethane	111	6.834	6.834	(1.032)	71812	50.0000	51.480(Q)
	27 1,1,1-Trichloroethane	97	7.025	7.025	(1.061)	11387	5.00000	5.185
	29 1,1-Dichloropropene	75	7.166	7.166	(0.939)	12169	5.00000	5.243
	30 Carbon Tetrachloride	117	7.286	7.286	(0.955)	10319	5.00000	5.112
$	31 d4-1,2-Dichloroethane	65	7.296	7.296	(1.102)	80444	50.0000	52.702
	32 1,2-Dichloroethane	62	7.387	7.387	(0.968)	10820	5.00000	5.310
	33 Benzene	78	7.437	7.437	(0.975)	30771	5.00000	5.482
*	34 1,4-Difluorobenzene	114	7.628	7.628	(1.000)	170929	50.0000	
	35 Trichloroethene	95	8.000	8.000	(1.049)	8715	5.00000	5.300
	36 1,2-Dichloropropane	63	8.161	8.161	(1.070)	9370	5.00000	5.296
	37 Bromodichloromethane	83	8.392	8.392	(1.100)	9943	5.00000	5.256
	39 Dibromomethane	93	8.462	8.462	(1.109)	4443	5.00000	5.059
	40 2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	2962	5.00000	4.780(Q)
	41 4-Methyl-2-Pentanone	58	8.643	8.643	(1.133)	11309	25.0000	25.028(Q)
	42 Cis 1,3-dichloropropene	75	8.904	8.904	(1.167)	10254	5.00000	4.965
$	43 d8-Toluene	98	9.176	9.176	(1.203)	191709	50.0000	51.044
	44 Toluene	92	9.256	9.256	(1.213)	17473	5.00000	5.247
	45 Trans 1,3-Dichloropropene	75	9.387	9.387	(1.231)	8395	5.00000	4.836
	46 2-Hexanone	43	9.527	9.527	(0.884)	29526	25.0000	24.696(M)
	47 1,1,2-Trichloroethane	97	9.578	9.578	(1.256)	5519	5.00000	5.323
	48 1,3-Dichloropropane	76	9.829	9.829	(0.911)	10453	5.00000	5.078
	49 Tetrachloroethene	166	9.949	9.949	(0.923)	8262	5.00000	5.084
	50 Chlorodibromomethane	129	10.161	10.161	(0.942)	6807	5.00000	4.915
	51 1,2-Dibromoethane	107	10.382	10.382	(1.361)	5784	5.00000	5.208
*	52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	146260	50.0000	
	53 Chlorobenzene	112	10.824	10.824	(1.004)	17766	5.00000	5.179
	54 Ethyl Benzene	91	10.854	10.854	(1.007)	30541	5.00000	5.264
	55 1,1,1,2-Tetrachloroethane	131	10.844	10.844	(1.006)	6409	5.00000	4.881
	56 m,p-xylene	106	10.934	10.934	(1.014)	22123	10.0000	10.434(Q)
	57 o-Xylene	106	11.427	11.427	(1.060)	10246	5.00000	4.649
	58 Styrene	104	11.457	11.457	(1.062)	16833	5.00000	4.940
	59 Isopropyl Benzene	105	11.799	11.799	(0.877)	27803	5.00000	5.452
	60 Bromoform	173	11.859	11.859	(0.881)	4268	5.00000	5.205
	61 1,1,2,2-Tetrachloroethane	83	11.980	11.980	(0.890)	7849	5.00000	5.327
$	62 4-Bromofluorobenzene	95	12.100	12.100	(1.122)	81582	50.0000	47.660
	63 1,2,3-Trichloropropane	110	12.150	12.150	(0.903)	1675	5.00000	5.738

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.201	(0.907)	2468	5.00000	5.450(QM)
66 N-Propyl Benzene	91	12.261	12.261	(0.911)	34800	5.00000	5.286
67 Bromobenzene	156	12.341	12.341	(0.917)	7362	5.00000	5.178
68 1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.924)	22104	5.00000	5.339
69 2-Chloro Toluene	91	12.492	12.492	(0.928)	23284	5.00000	5.382
70 4-Chloro Toluene	91	12.532	12.532	(0.931)	21819	5.00000	5.262
71 T-Butyl Benzene	119	12.844	12.844	(0.954)	19493	5.00000	5.504
72 1,2,4-Trimethylbenzene	105	12.884	12.884	(0.957)	21602	5.00000	5.301
73 S-Butyl Benzene	105	13.085	13.085	(0.972)	30183	5.00000	5.180
74 4-Isopropyl Toluene	119	13.236	13.236	(0.984)	21391	5.00000	5.350
75 1,3-Dichlorobenzene	146	13.377	13.377	(0.994)	12682	5.00000	5.221
* 76 d4-1,4-Dichlorobenzene	152	13.457	13.457	(1.000)	75761	50.0000	
77 1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	12899	5.00000	5.307
78 N-Butyl Benzene	91	13.708	13.708	(1.019)	23070	5.00000	5.344
$ 79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.034)	69719	50.0000	50.593
80 1,2-Dichlorobenzene	146	13.939	13.939	(1.036)	12406	5.00000	5.374
81 1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.103)	1436	5.00000	5.632
82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.181)	7355	5.00000	5.236
83 Hexachloro 1,3-Butadiene	225	16.040	16.040	(1.192)	5223	5.00000	5.520
84 Naphthalene	128	16.211	16.211	(1.205)	13199	5.00000	5.180
85 1,2,3-Trichlorobenzene	180	16.502	16.502	(1.226)	7275	5.00000	5.417

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0050723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD005
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

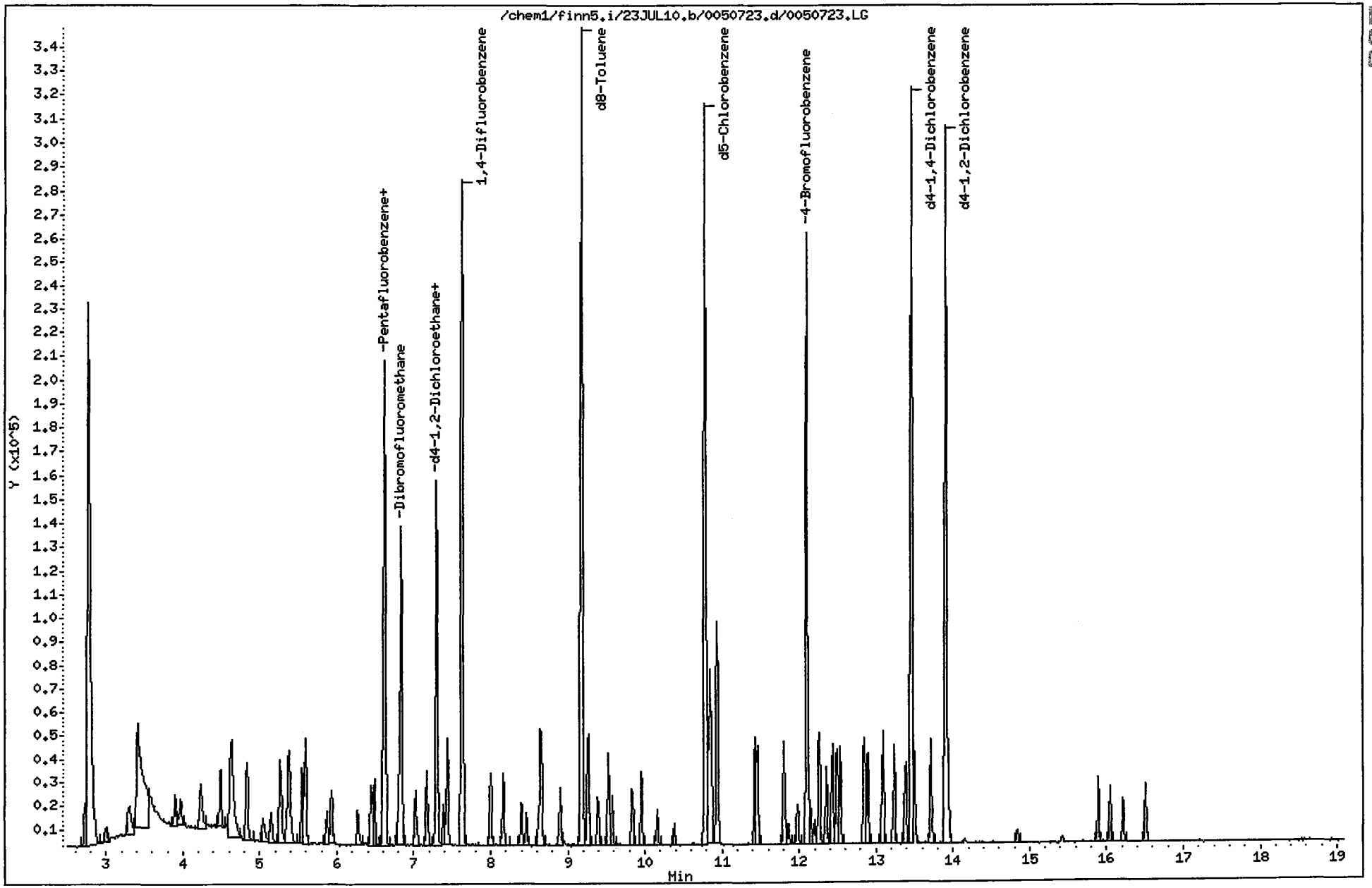
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	117041	-10.73
34 1,4-Difluorobenze	191559	95780	383118	170929	-10.77
52 d5-Chlorobenzene	161199	80600	322398	146260	-9.27
76 d4-1,4-Dichlorobe	88279	44140	176558	75761	-14.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.63	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

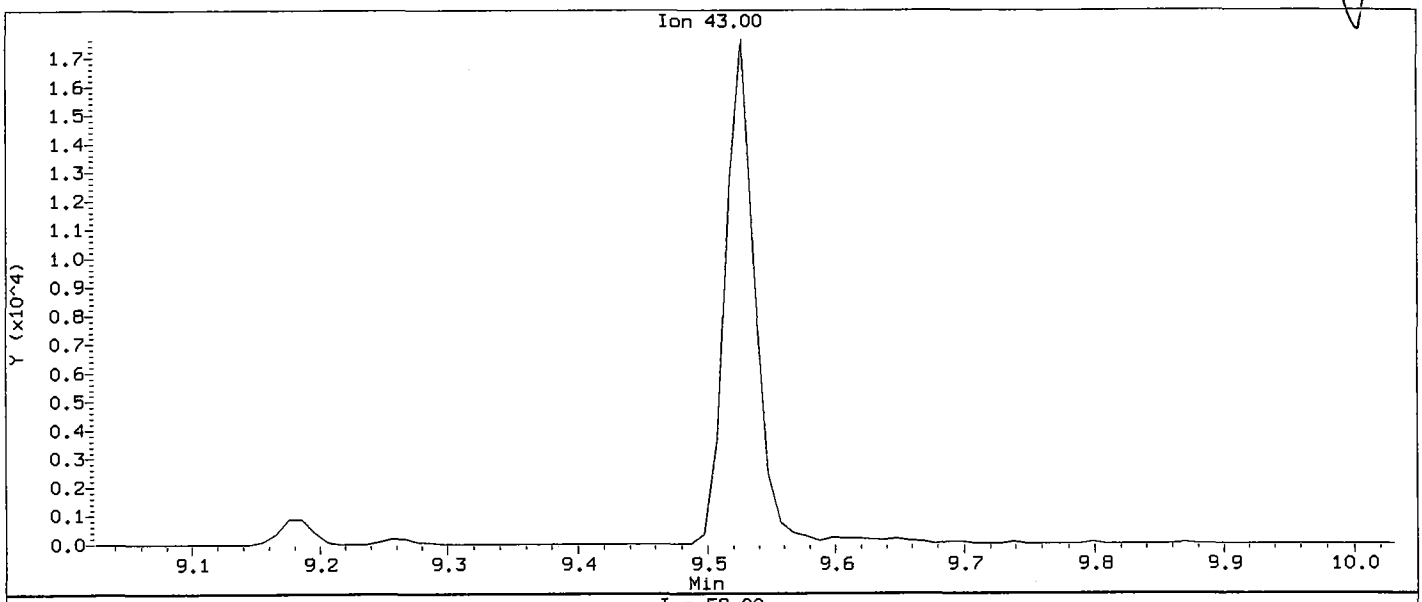
Data File: /chem1/finn5.i/23JUL10.b/0050723.d
Date : 23-JUL-2010 19:35
Client ID: VSTD005
Sample Info: IC0723,5,5,0

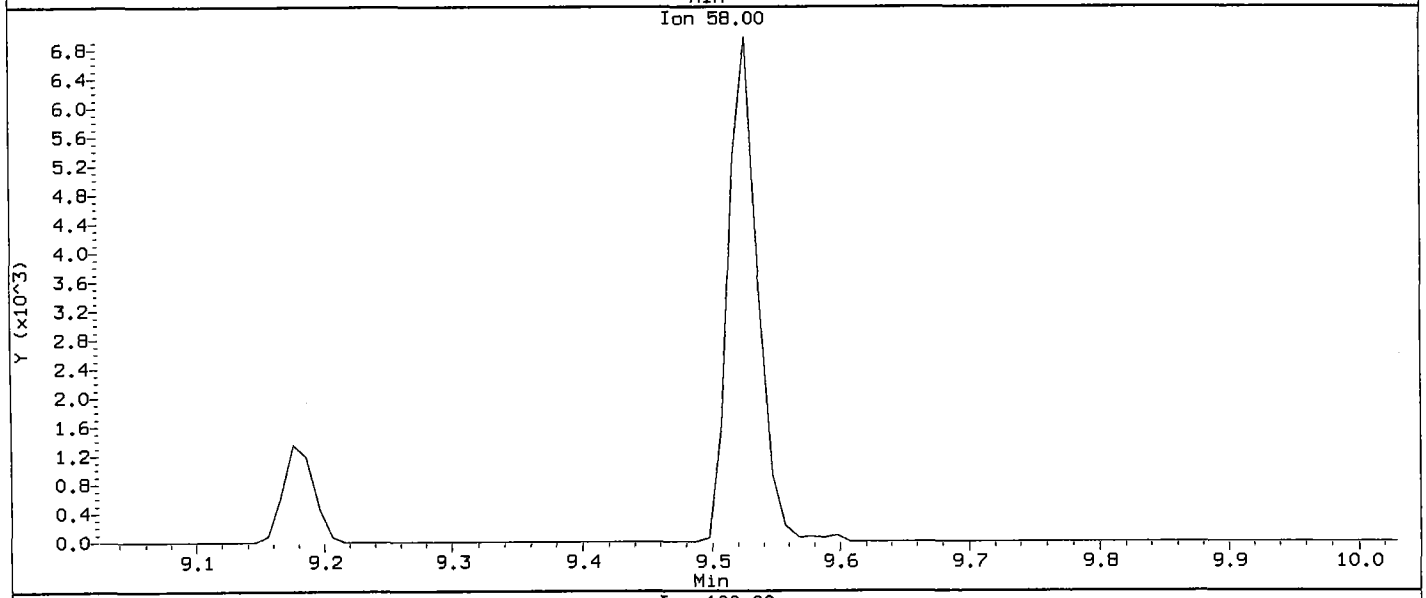
Instrument: finn5.i
Operator: PB
Column phase: Rtx502.2
Column diameter: 0.18

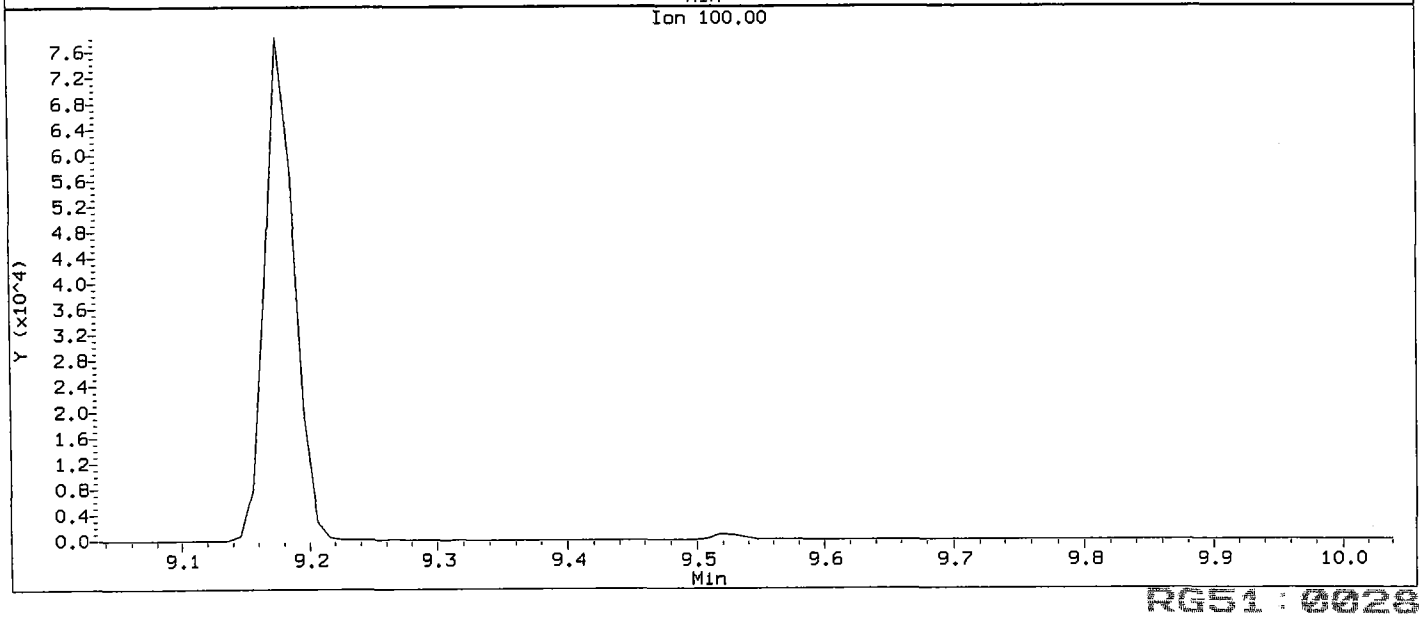


Data File: /chem1/finn5.i/23JUL10.b/0050723.d/0050723.LG
Injection Date: 23-JUL-2010 19:35
Instrument: finn5.i
Client Sample ID: VSTD005

Compound: 2-Hexanone
CAS Number:

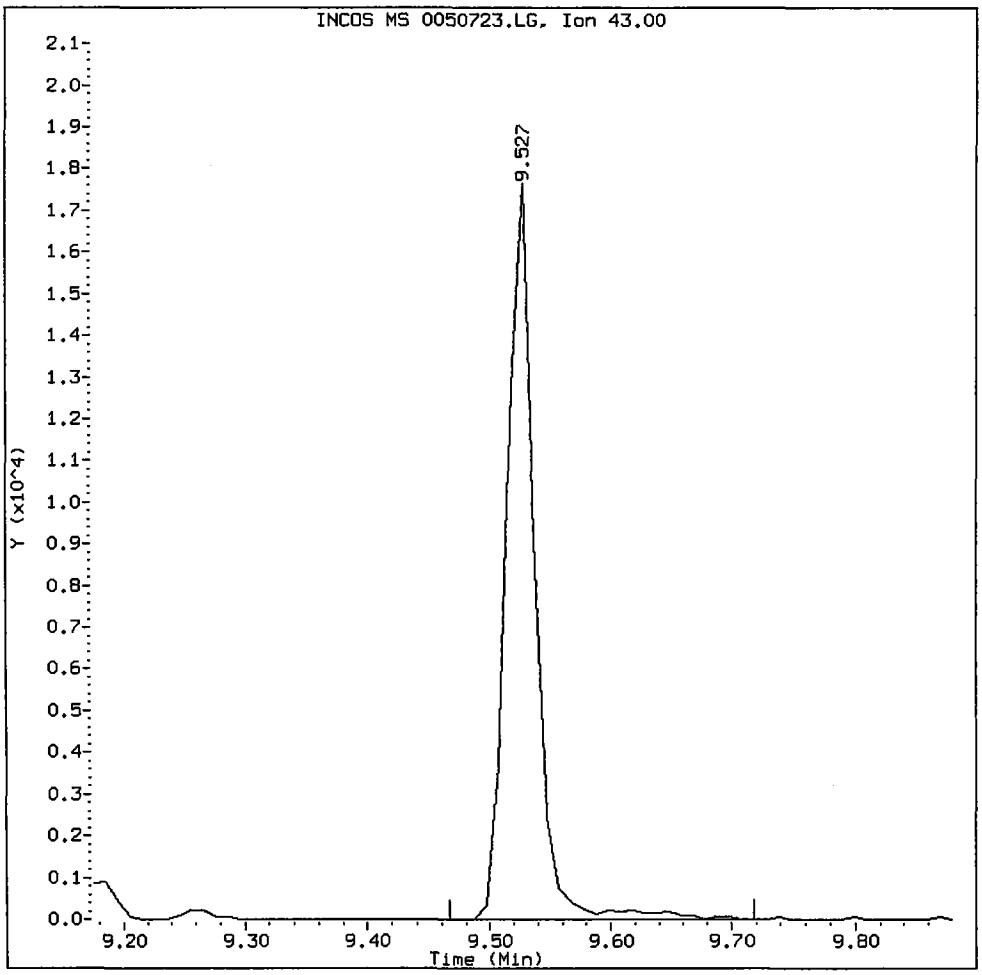






IC0723, /chem1/finn5.i/23JUL10.b/0050723.d

2-Hexanone Amount: 24.70 Area: 29526



MANUAL INTEGRATION for 2-Hexanone

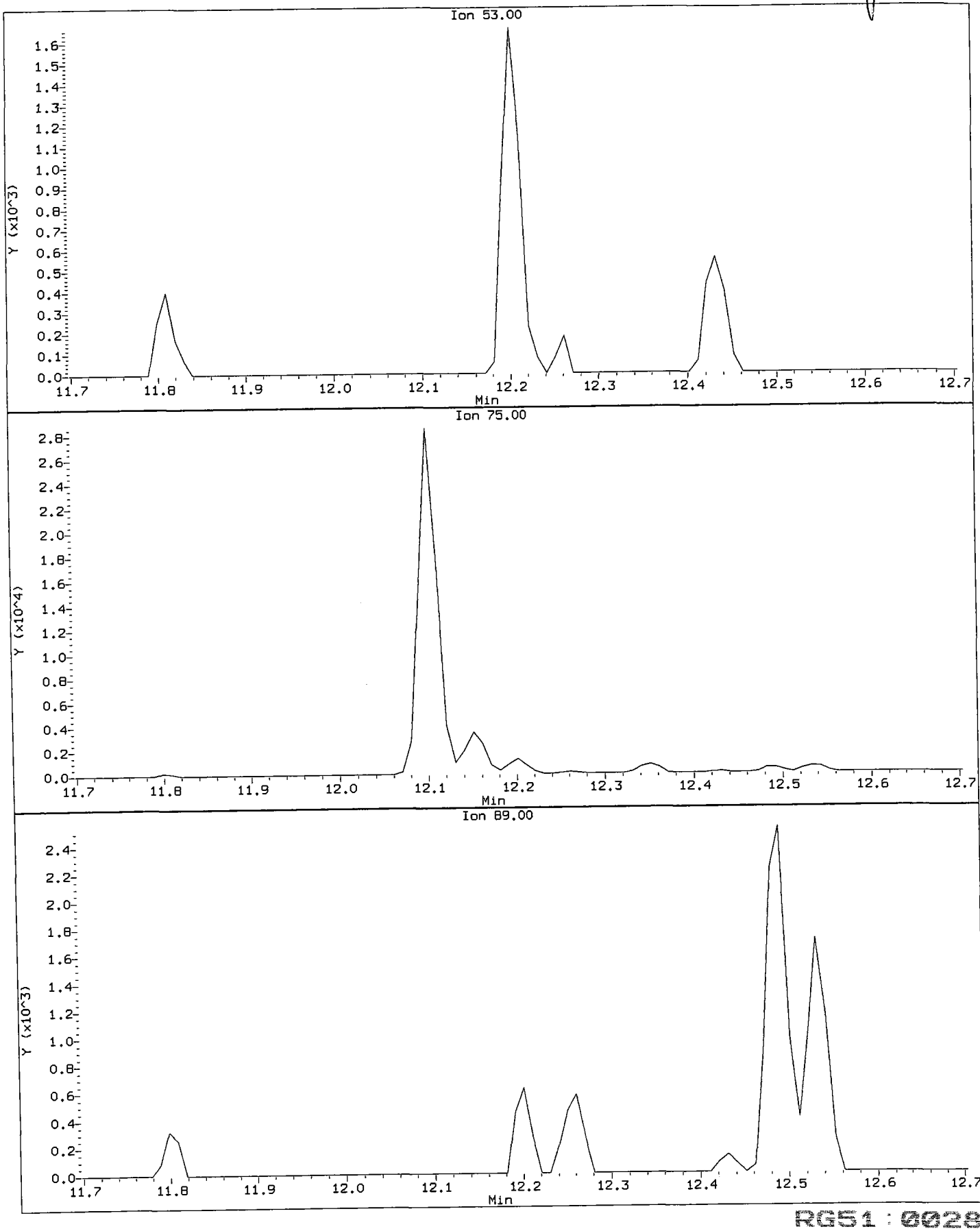
1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: 7/12/10

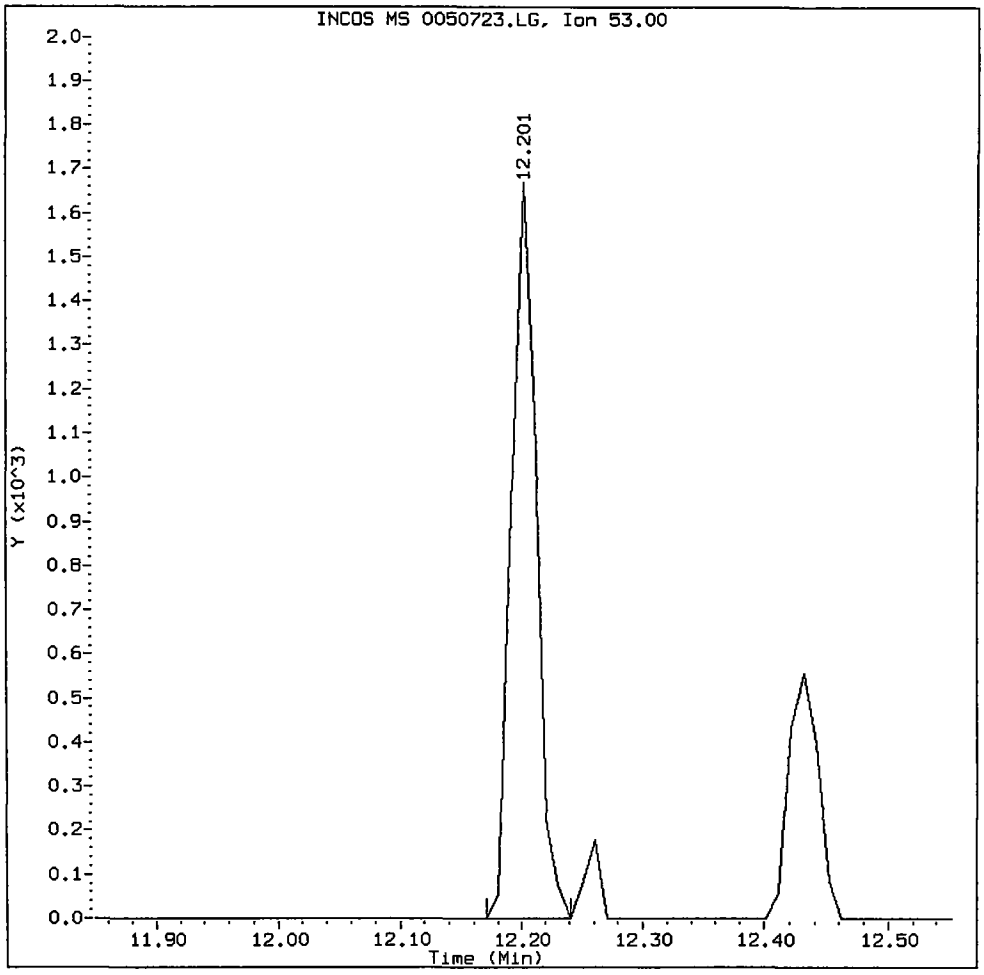
Data File: /chem1/finn5.i/23JUL10.b/0050723.d/0050723.LG
Injection Date: 23-JUL-2010 19:35
Instrument: finn5.i
Client Sample ID: VSTD005

Compound: Trans-1,4-Dichloro 2-Butene
CAS Number:



IC0723, /chem1/finn5.i/23JUL10.b/0050723.d

Trans-1,4-Dichloro 2-Butene Amount: 5.45 Area: 2468



MANUAL INTEGRATION for Trans-1,4-Dichloro 2-Butene

1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: _____ Date: _____

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/0100723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD010
Inj Date : 23-JUL-2010 19:09
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 19:09 Cal File: 0100723.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.005	(0.454)	15067	10.0000	9.770
2 Chloromethane	50	3.306	3.306	(0.499)	47789	10.0000	11.518
3 Vinyl Chloride	62	3.407	3.407	(0.514)	37997	10.0000	11.580(Q)
4 Bromomethane	94	3.899	3.899	(0.589)	14872	10.0000	8.346
5 Chloroethane	64	3.970	3.970	(0.599)	20719	10.0000	9.669
6 Trichlorofluoromethane	101	4.231	4.231	(0.639)	33546	10.0000	10.578
7 Acrolein	56	4.623	4.623	(0.698)	19450	50.0000	49.169
8 112Trichloro122Trifluoroethane	101	4.633	4.633	(0.700)	26723	10.0000	10.764
9 Acetone	43	4.673	4.673	(0.706)	35817	50.0000	53.814
10 1,1-Dichloroethene	96	4.834	4.834	(0.730)	24541	10.0000	10.893
11 Bromoethane	108	5.055	5.055	(0.763)	17903	10.0000	10.731
12 Iodomethane	142	5.146	5.146	(0.777)	27119	10.0000	10.181
13 Methylene Chloride	84	5.266	5.266	(0.795)	26821	10.0000	10.573
14 Acrylonitrile	53	5.357	5.357	(0.809)	6777	10.0000	11.533(Q)

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	16	Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	38803	10.0000	11.200(Q)
	15	Carbon Disulfide	76	5.367	5.367	(0.810)	78061	10.0000	11.172
	17	Trans-1,2-Dichloroethene	96	5.548	5.548	(0.838)	21284	10.0000	11.086
	18	Vinyl Acetate	43	5.869	5.869	(0.886)	37100	10.0000	11.033
	19	1,1-Dichloroethane	63	5.929	5.929	(0.895)	39819	10.0000	11.274
	20	2-Butanone	43	6.281	6.281	(0.948)	42020	50.0000	56.109
	21	2,2-Dichloropropane	77	6.452	6.452	(0.974)	22630	10.0000	10.471
	22	Cis-1,2-Dichloroethene	96	6.492	6.492	(0.980)	18047	10.0000	10.665
*	23	Pentafluorobenzene	168	6.623	6.623	(1.000)	118930	50.0000	
	24	Chloroform	83	6.633	6.633	(1.002)	31386	10.0000	10.940
	26	Bromochloromethane	128	6.804	6.804	(1.027)	8495	10.0000	10.574
$	25	Dibromofluoromethane	111	6.834	6.834	(1.032)	69715	50.0000	49.182(Q)
	27	1,1,1-Trichloroethane	97	7.025	7.025	(1.061)	23434	10.0000	10.502
	29	1,1-Dichloropropene	75	7.166	7.166	(0.939)	25745	10.0000	11.267
	30	Carbon Tetrachloride	117	7.286	7.286	(0.955)	21209	10.0000	10.673
$	31	d4-1,2-Dichloroethane	65	7.296	7.296	(1.102)	76858	50.0000	49.553
	32	1,2-Dichloroethane	62	7.387	7.387	(0.968)	22825	10.0000	11.378
	33	Benzene	78	7.437	7.437	(0.975)	66143	10.0000	11.970
*	34	1,4-Difluorobenzene	114	7.628	7.628	(1.000)	168271	50.0000	
	35	Trichloroethene	95	8.000	8.000	(1.049)	18174	10.0000	11.226
	36	1,2-Dichloropropane	63	8.161	8.161	(1.070)	19596	10.0000	11.250
	37	Bromodichloromethane	83	8.402	8.402	(1.101)	20319	10.0000	10.911
	39	Dibromomethane	93	8.472	8.472	(1.111)	9683	10.0000	11.199
	40	2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	6388	10.0000	10.472(Q)
	41	4-Methyl-2-Pentanone	58	8.653	8.653	(1.134)	24009	50.0000	53.974
	42	Cis 1,3-dichloropropene	75	8.904	8.904	(1.167)	22221	10.0000	10.929
$	43	d8-Toluene	98	9.176	9.176	(1.203)	186138	50.0000	50.343
	44	Toluene	92	9.266	9.266	(1.215)	35399	10.0000	10.798
	45	Trans 1,3-Dichloropropene	75	9.397	9.397	(1.232)	18193	10.0000	10.645
	46	2-Hexanone	43	9.527	9.527	(0.884)	61774	50.0000	53.599
	47	1,1,2-Trichloroethane	97	9.578	9.578	(1.256)	11407	10.0000	11.176
	48	1,3-Dichloropropane	76	9.829	9.829	(0.911)	21313	10.0000	10.740
	49	Tetrachloroethene	166	9.949	9.949	(0.923)	15981	10.0000	10.202
	50	Chlorodibromomethane	129	10.161	10.161	(0.942)	14166	10.0000	10.612
	51	1,2-Dibromoethane	107	10.382	10.382	(1.361)	11754	10.0000	10.752
*	52	d5-Chlorobenzene	117	10.784	10.784	(1.000)	140990	50.0000	
	53	Chlorobenzene	112	10.824	10.824	(1.004)	36224	10.0000	10.954
	54	Ethyl Benzene	91	10.854	10.854	(1.007)	63957	10.0000	11.437
	55	1,1,1,2-Tetrachloroethane	131	10.844	10.844	(1.006)	12790	10.0000	10.106
	56	m,p-xylene	106	10.934	10.934	(1.014)	46275	20.0000	22.640(Q)
	57	o-Xylene	106	11.427	11.427	(1.060)	21803	10.0000	10.264
	58	Styrene	104	11.457	11.457	(1.062)	37240	10.0000	11.338
	59	Isopropyl Benzene	105	11.809	11.809	(0.878)	58882	10.0000	12.124
	60	Bromoform	173	11.869	11.869	(0.882)	8420	10.0000	10.783
	61	1,1,2,2-Tetrachloroethane	83	11.980	11.980	(0.890)	16250	10.0000	11.581
$	62	4-Bromofluorobenzene	95	12.100	12.100	(1.122)	77668	50.0000	47.070
	63	1,2,3-Trichloropropane	110	12.150	12.150	(0.903)	3269	10.0000	11.760

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.201	(0.907)	5035	10.0000	11.675
	66 N-Propyl Benzene	91	12.261	12.261	(0.911)	74061	10.0000	11.812
	67 Bromobenzene	156	12.351	12.351	(0.918)	15265	10.0000	11.274
	68 1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.924)	46547	10.0000	11.806
	69 2-Chloro Toluene	91	12.492	12.492	(0.928)	48661	10.0000	11.812
	70 4-Chloro Toluene	91	12.532	12.532	(0.931)	47584	10.0000	12.050
	71 T-Butyl Benzene	119	12.844	12.844	(0.954)	41330	10.0000	12.254
	72 1,2,4-Trimethylbenzene	105	12.894	12.894	(0.958)	47036	10.0000	12.119
	73 S-Butyl Benzene	105	13.085	13.085	(0.972)	64271	10.0000	11.583
	74 4-Isopropyl Toluene	119	13.236	13.236	(0.984)	45887	10.0000	12.052
	75 1,3-Dichlorobenzene	146	13.387	13.387	(0.995)	27596	10.0000	11.930
*	76 d4-1,4-Dichlorobenzene	152	13.457	13.457	(1.000)	72150	50.0000	
	77 1,4-Dichlorobenzene	146	13.497	13.497	(1.003)	26532	10.0000	11.462
	78 N-Butyl Benzene	91	13.708	13.708	(1.019)	49500	10.0000	12.040
$	79 d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.034)	66793	50.0000	50.895
	80 1,2-Dichlorobenzene	146	13.939	13.939	(1.036)	25247	10.0000	11.484
	81 1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.103)	2894	10.0000	11.920
	82 1,2,4-Trichlorobenzene	180	15.889	15.889	(1.181)	16254	10.0000	12.150
	83 Hexachloro 1,3-Butadiene	225	16.040	16.040	(1.192)	10838	10.0000	12.028
	84 Naphthalene	128	16.221	16.221	(1.205)	30211	10.0000	12.450
	85 1,2,3-Trichlorobenzene	180	16.502	16.502	(1.226)	16393	10.0000	12.817

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0100723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD010
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	118930	-9.29
34 1,4-Difluorobenze	191559	95780	383118	168271	-12.16
52 d5-Chlorobenzene	161199	80600	322398	140990	-12.54
76 d4-1,4-Dichlorobe	88279	44140	176558	72150	-18.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.63	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

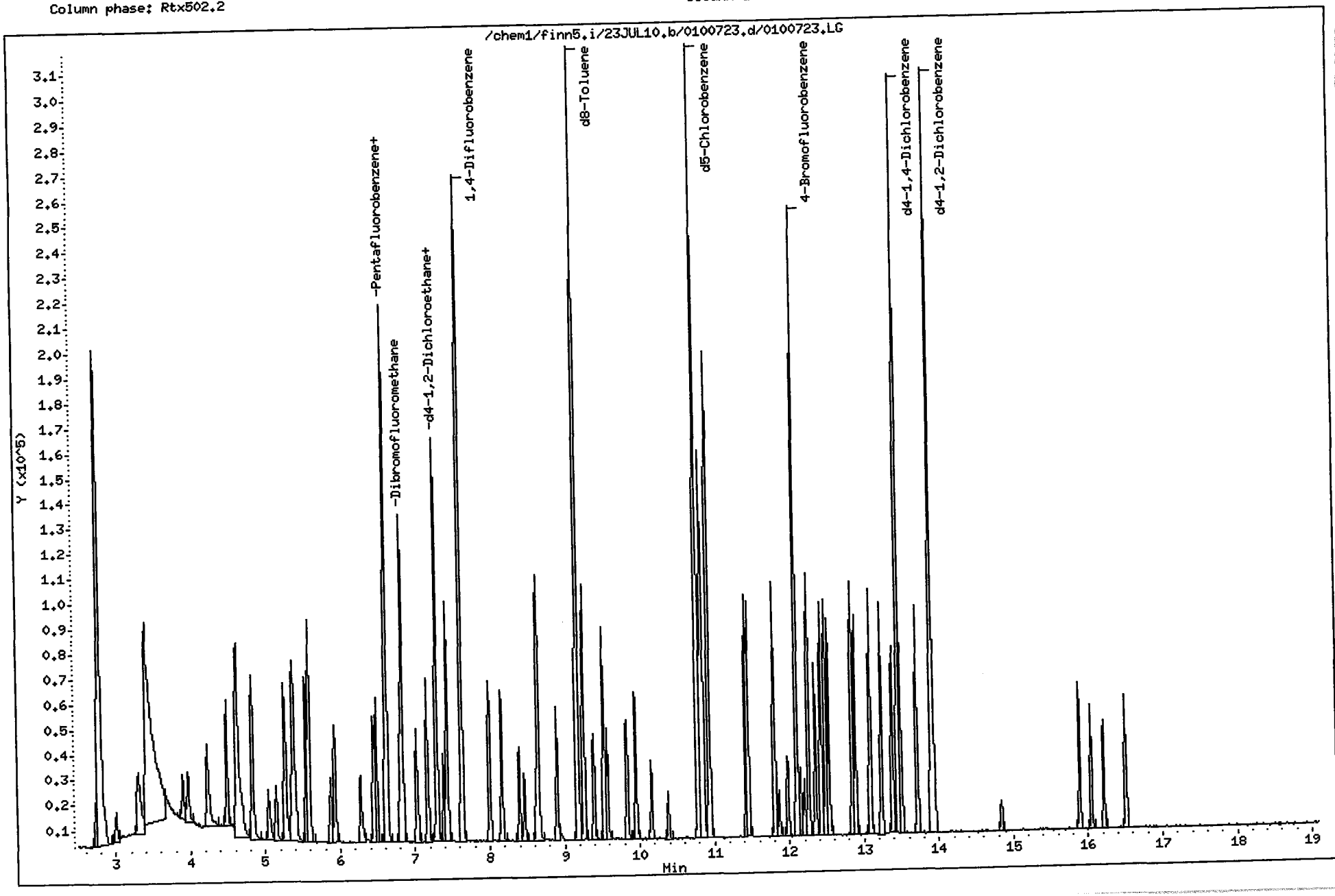
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/0100723.d
Date : 23-JUL-2010 19:09
Client ID: VSTD010
Sample Info: IC0723,5,5,0

Instrument: finn5.i

Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/0500723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD050
Inj Date : 23-JUL-2010 18:42
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 18:42 Cal File: 0500723.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.005	(0.454)	88494	50.0000	52.050
2 Chloromethane	50	3.306	3.306	(0.499)	216660	50.0000	47.364
3 Vinyl Chloride	62	3.417	3.417	(0.516)	178705	50.0000	49.403
4 Bromomethane	94	3.909	3.909	(0.590)	106254	50.0000	54.088
5 Chloroethane	64	3.980	3.980	(0.601)	114914	50.0000	48.645
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	187024	50.0000	53.495
7 Acrolein	56	4.623	4.623	(0.698)	103002	250.000	236.19
8 112Trichloro122Trifluoroethane	101	4.633	4.633	(0.700)	132979	50.0000	48.585
9 Acetone	43	4.673	4.673	(0.706)	175977	250.000	239.83
10 1,1-Dichloroethene	96	4.834	4.834	(0.730)	128370	50.0000	51.685
11 Bromoethane	108	5.055	5.055	(0.763)	95360	50.0000	51.846
12 Iodomethane	142	5.156	5.156	(0.778)	164295	50.0000	55.947
13 Methylene Chloride	84	5.266	5.266	(0.795)	122611	50.0000	43.842
14 Acrylonitrile	53	5.357	5.357	(0.809)	34222	50.0000	52.824

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	199902	50.0000	52.338
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	416399	50.0000	54.056
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	104060	50.0000	49.162
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	204622	50.0000	55.196
	19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	201091	50.0000	51.642
	20 2-Butanone	43	6.281	6.281	(0.948)	214832	250.000	260.20
	21 2,2-Dichloropropane	77	6.452	6.452	(0.974)	119721	50.0000	50.246
	22 Cis-1,2-Dichloroethene	96	6.492	6.492	(0.980)	90699	50.0000	48.618
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	131115	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	157700	50.0000	49.859
	26 Bromochloromethane	128	6.804	6.804	(1.027)	43978	50.0000	49.652
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	78499	50.0000	50.233
	27 1,1,1-Trichloroethane	97	7.025	7.025	(1.061)	122308	50.0000	49.717
	29 1,1-Dichloropropene	75	7.176	7.176	(0.941)	128968	50.0000	49.578
	30 Carbon Tetrachloride	117	7.286	7.286	(0.955)	109284	50.0000	48.311
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	84334	50.0000	49.320
	32 1,2-Dichloroethane	62	7.387	7.387	(0.968)	112274	50.0000	49.165
	33 Benzene	78	7.437	7.437	(0.975)	317315	50.0000	50.445
*	34 1,4-Difluorobenzene	114	7.628	7.628	(1.000)	191559	50.0000	
	35 Trichloroethene	95	8.000	8.000	(1.049)	89737	50.0000	48.692
	36 1,2-Dichloropropane	63	8.171	8.171	(1.071)	96034	50.0000	48.432
	37 Bromodichloromethane	83	8.402	8.402	(1.101)	103931	50.0000	49.024
	39 Dibromomethane	93	8.472	8.472	(1.111)	47687	50.0000	48.448
	40 2-Chloroethyl Vinyl Ether	63	8.613	8.613	(1.129)	35475	50.0000	51.086
	41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.134)	127285	250.000	251.36
	42 Cis 1,3-dichloropropene	75	8.904	8.904	(1.167)	122153	50.0000	52.775
$	43 d8-Toluene	98	9.186	9.186	(1.204)	213313	50.0000	50.679
	44 Toluene	92	9.266	9.266	(1.215)	176514	50.0000	47.296
	45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.232)	99882	50.0000	51.339
	46 2-Hexanone	43	9.527	9.527	(0.884)	307458	250.000	233.33
	47 1,1,2-Trichloroethane	97	9.578	9.578	(1.256)	56632	50.0000	48.742
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	109236	50.0000	48.147
	49 Tetrachloroethene	166	9.960	9.960	(0.924)	78929	50.0000	44.072
	50 Chlorodibromomethane	129	10.161	10.161	(0.942)	72980	50.0000	47.816
	51 1,2-Dibromoethane	107	10.392	10.392	(1.362)	61687	50.0000	49.567
*	52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	161199	50.0000	
	53 Chlorobenzene	112	10.824	10.824	(1.004)	176231	50.0000	46.611
	54 Ethyl Benzene	91	10.854	10.854	(1.007)	325754	50.0000	50.948
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	62748	50.0000	43.363
	56 m,p-xylene	106	10.934	10.934	(1.014)	247468	100.000	105.89
	57 o-Xylene	106	11.427	11.427	(1.060)	120870	50.0000	49.766
	58 Styrene	104	11.457	11.457	(1.062)	197957	50.0000	52.713
	59 Isopropyl Benzene	105	11.809	11.809	(0.877)	321007	50.0000	54.019
	60 Bromoform	173	11.869	11.869	(0.881)	45981	50.0000	48.125
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	80952	50.0000	47.153
$	62 4-Bromofluorobenzene	95	12.100	12.100	(1.122)	91332	50.0000	48.412
	63 1,2,3-Trichloropropane	110	12.150	12.150	(0.902)	16376	50.0000	48.148

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	26610	50.0000	50.430
66	N-Propyl Benzene	91	12.261	12.261	(0.910)	378862	50.0000	49.387
67	Bromobenzene	156	12.351	12.351	(0.917)	80968	50.0000	48.876
68	1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.923)	264645	50.0000	54.862
69	2-Chloro Toluene	91	12.492	12.492	(0.928)	248038	50.0000	49.208
70	4-Chloro Toluene	91	12.532	12.532	(0.931)	261192	50.0000	54.058
71	T-Butyl Benzene	119	12.844	12.844	(0.954)	232931	50.0000	56.443
72	1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	260230	50.0000	54.800
73	S-Butyl Benzene	105	13.095	13.095	(0.972)	355887	50.0000	52.419
74	4-Isopropyl Toluene	119	13.236	13.236	(0.983)	260120	50.0000	55.837
75	1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	145285	50.0000	51.333
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	88279	50.0000	
77	1,4-Dichlorobenzene	146	13.497	13.497	(1.002)	140968	50.0000	49.774
78	N-Butyl Benzene	91	13.718	13.718	(1.019)	273888	50.0000	54.445
$ 79	d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	81684	50.0000	50.870
80	1,2-Dichlorobenzene	146	13.939	13.939	(1.035)	133963	50.0000	49.803
81	1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.102)	15128	50.0000	50.924
82	1,2,4-Trichlorobenzene	180	15.889	15.889	(1.180)	75938	50.0000	46.392
83	Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	52008	50.0000	47.175
84	Naphthalene	128	16.221	16.221	(1.204)	142809	50.0000	48.101
85	1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	71413	50.0000	45.633

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0500723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD050
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	131115	0.00
34 1,4-Difluorobenze	191559	95780	383118	191559	0.00
52 d5-Chlorobenzene	161199	80600	322398	161199	0.00
76 d4-1,4-Dichlorobe	88279	44140	176558	88279	0.00

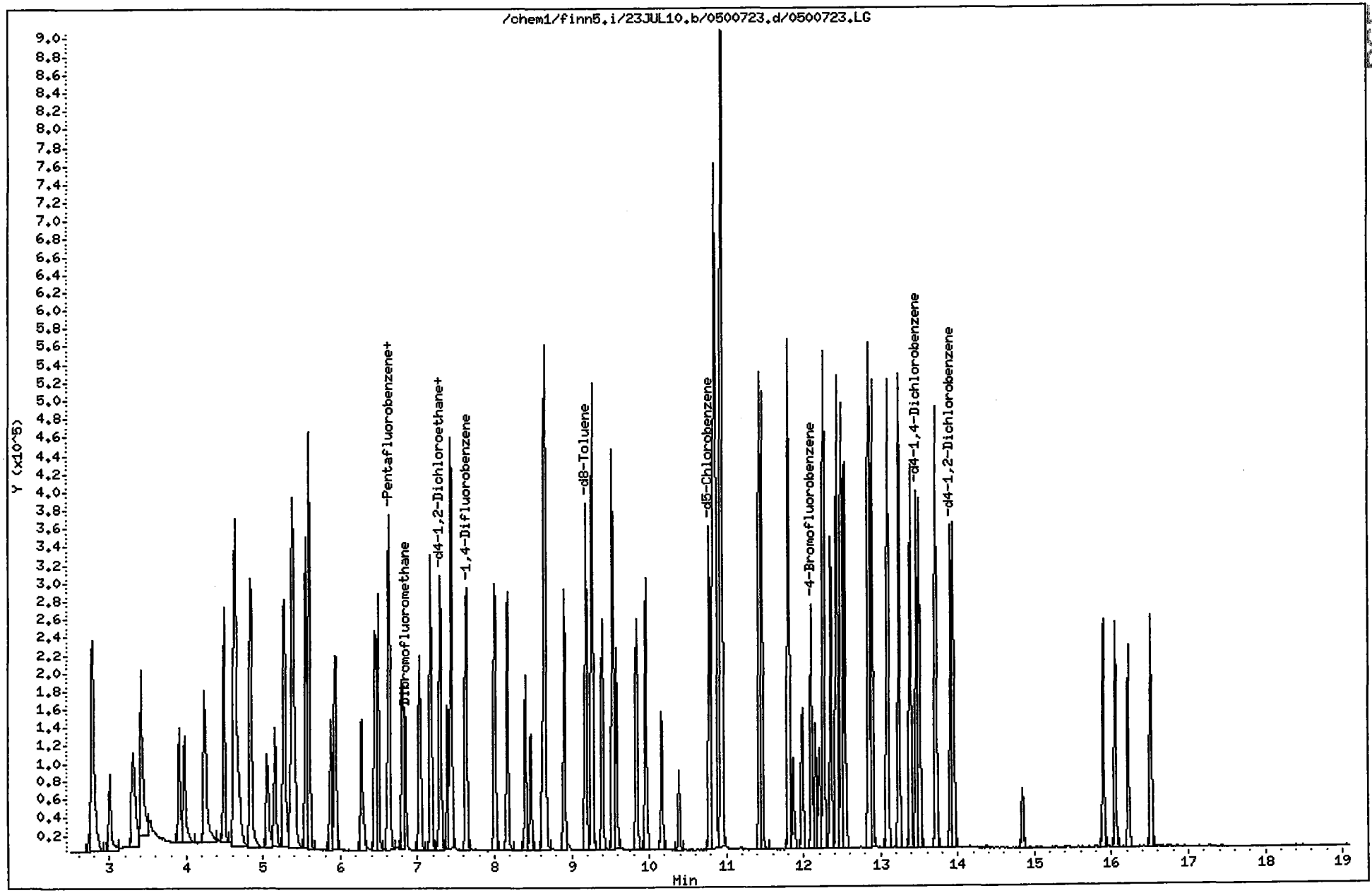
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.63	0.00
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/0500723.d
Date : 23-JUL-2010 18:42
Client ID: VSTD050
Sample Info: IC0723,5,5,0

Instrument: finn5.i
Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/1000723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD100
Inj Date : 23-JUL-2010 18:16
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 18:16 Cal File: 1000723.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.005	(0.454)	182544	100.000	104.02
2 Chloromethane	50	3.306	3.306	(0.499)	423802	100.000	89.759
3 Vinyl Chloride	62	3.417	3.417	(0.516)	367442	100.000	98.412
4 Bromomethane	94	3.909	3.909	(0.590)	208154	100.000	102.66
5 Chloroethane	64	3.980	3.980	(0.601)	210640	100.000	86.388
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	346453	100.000	96.008
7 Acrolein	56	4.633	4.633	(0.700)	197468	500.000	438.68
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.701)	264194	100.000	93.516
9 Acetone	43	4.683	4.683	(0.707)	329833	500.000	435.50
10 1,1-Dichloroethene	96	4.834	4.834	(0.730)	252737	100.000	98.586
11 Bromoethane	108	5.055	5.055	(0.763)	196835	100.000	103.68
12 Iodomethane	142	5.156	5.156	(0.778)	339831	100.000	112.12
13 Methylene Chloride	84	5.276	5.276	(0.797)	251445	100.000	87.107
14 Acrylonitrile	53	5.357	5.357	(0.809)	69928	100.000	104.57(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	417323	100.000	105.86(Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	775986	100.000	97.596
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	225901	100.000	103.40
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	420486	100.000	109.89
	19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	422564	100.000	105.14
	20 2-Butanone	43	6.281	6.281	(0.948)	437209	500.000	513.04
	21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	258768	100.000	105.22
	22 Cis-1,2-Dichloroethene	96	6.492	6.492	(0.980)	200756	100.000	104.26
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	135334	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	333986	100.000	102.30
	26 Bromochloromethane	128	6.804	6.804	(1.027)	95093	100.000	104.01
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	79364	50.0000	49.203(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.062)	260275	100.000	102.50
	29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	277625	100.000	102.36
	30 Carbon Tetrachloride	117	7.286	7.286	(0.954)	236579	100.000	100.30
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	86752	50.0000	49.152
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	238783	100.000	100.28
	33 Benzene	78	7.447	7.447	(0.975)	581109	100.000	88.602
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	199732	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	193783	100.000	100.84
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	206742	100.000	99.998
	37 Bromodichloromethane	83	8.402	8.402	(1.100)	221686	100.000	100.29
	39 Dibromomethane	93	8.472	8.472	(1.109)	104013	100.000	101.35
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	77415	100.000	106.92(Q)
	41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	263763	500.000	499.56(Q)
	42 Cis 1,3-dichloropropene	75	8.904	8.904	(1.166)	270130	100.000	111.93
$	43 d8-Toluene	98	9.186	9.186	(1.203)	215653	50.0000	49.139
	44 Toluene	92	9.266	9.266	(1.213)	377962	100.000	97.129(Q)
	45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.230)	223383	100.000	110.12
	46 2-Hexanone	43	9.527	9.527	(0.884)	517771	500.000	394.32
	47 1,1,2-Trichloroethane	97	9.578	9.578	(1.254)	123034	100.000	101.56
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	232506	100.000	102.84
	49 Tetrachloroethene	166	9.960	9.960	(0.924)	175269	100.000	98.211
	50 Chlorodibromomethane	129	10.161	10.161	(0.942)	158474	100.000	104.20
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	131007	100.000	100.96
*	52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	160631	50.0000	
	53 Chlorobenzene	112	10.824	10.824	(1.004)	376912	100.000	100.04
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	573170	100.000	89.962
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	137418	100.000	95.300
	56 m,p-xylene	106	10.944	10.944	(1.015)	516678	200.000	221.87(Q)
	57 o-Xylene	106	11.427	11.427	(1.060)	269989	100.000	111.56(Q)
	58 Styrene	104	11.457	11.457	(1.062)	431090	100.000	115.20
	59 Isopropyl Benzene	105	11.809	11.809	(0.877)	588226	100.000	90.704
	60 Bromoform	173	11.869	11.869	(0.881)	103792	100.000	99.542
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	171593	100.000	91.586
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	95036	50.0000	50.553
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	35211	100.000	94.864

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	57625	100.000	100.07
66	N-Propyl Benzene	91	12.261	12.261	(0.910)	642345	100.000	76.727
67	Bromobenzene	156	12.351	12.351	(0.917)	184300	100.000	101.94
68	1,3,5-Trimethyl Benzene	105	12.432	12.432	(0.923)	526617	100.000	100.04
69	2-Chloro Toluene	91	12.492	12.492	(0.928)	543512	100.000	98.805
70	4-Chloro Toluene	91	12.542	12.542	(0.931)	505915	100.000	95.947
71	T-Butyl Benzene	119	12.844	12.844	(0.954)	493329	100.000	109.54
72	1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	539580	100.000	104.12
73	S-Butyl Benzene	105	13.095	13.095	(0.972)	628727	100.000	84.857
74	4-Isopropyl Toluene	119	13.236	13.236	(0.983)	529249	100.000	104.10
75	1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	347593	100.000	112.54
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	96340	50.0000	
77	1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	341992	100.000	110.65
78	N-Butyl Benzene	91	13.718	13.718	(1.019)	548418	100.000	99.896
$ 79	d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	86952	50.0000	49.620
80	1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	305695	100.000	104.14
81	1,2-Dibromo 3-Chloropropane	75	14.844	14.844	(1.102)	30455	100.000	93.940
82	1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	175953	100.000	98.499
83	Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	115056	100.000	95.632
84	Naphthalene	128	16.221	16.221	(1.204)	300283	100.000	92.679
85	1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	158431	100.000	92.767

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 1000723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD100
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	135334	3.22
34 1,4-Difluorobenze	191559	95780	383118	199732	4.27
52 d5-Chlorobenzene	161199	80600	322398	160631	-0.35
76 d4-1,4-Dichlorobe	88279	44140	176558	96340	9.13

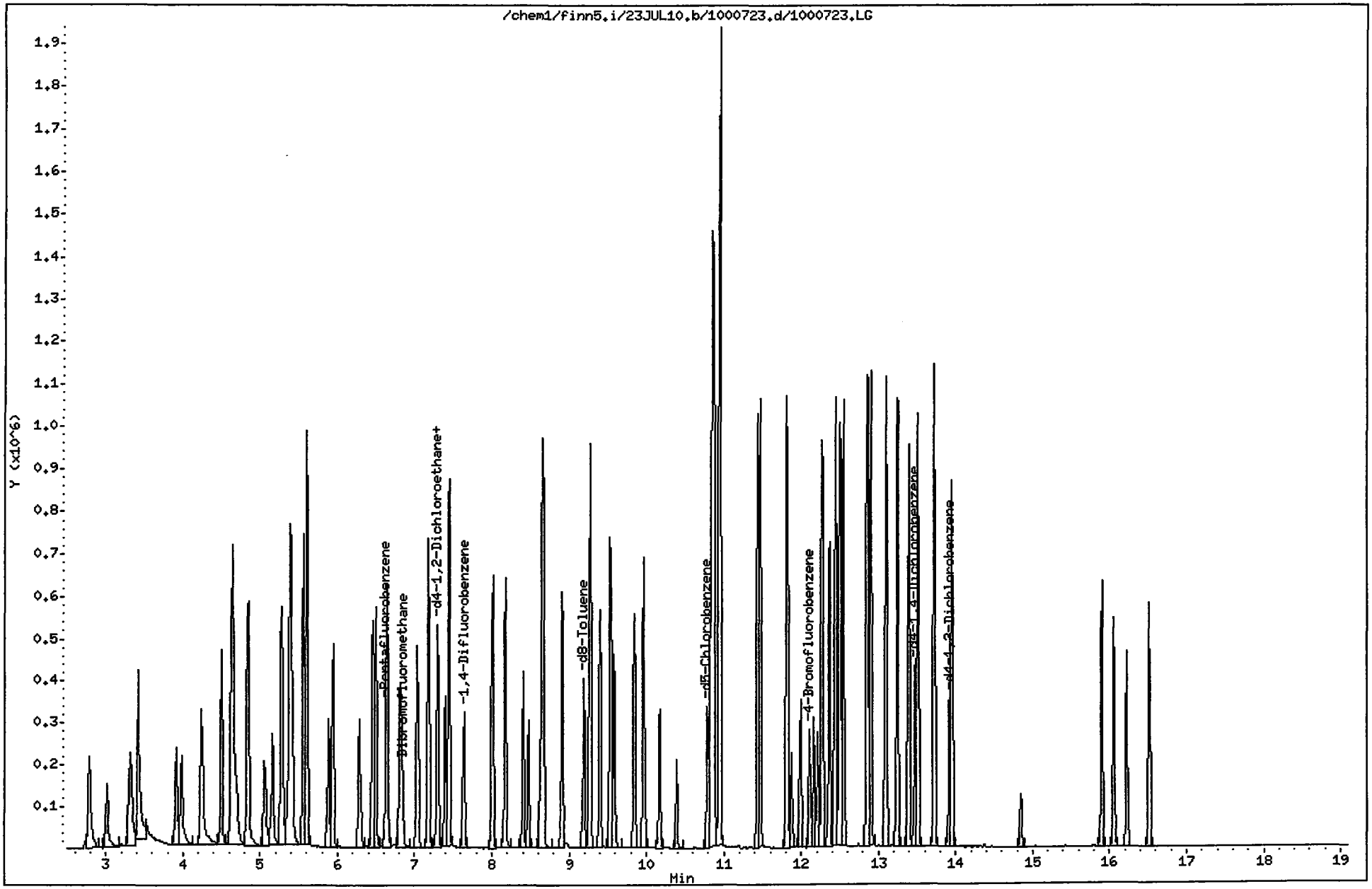
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.64	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/1000723.d
Date : 23-JUL-2010 18:16
Client ID: VSTD100
Sample Info: IC0723,5,5,0

Instrument: finn5.i
Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/1500723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD150
Inj Date : 23-JUL-2010 17:49
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:49 Cal File: 1500723.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.455)	295620	150.000	146.34
2 Chloromethane	50	3.316	3.316	(0.501)	648632	150.000	119.34
3 Vinyl Chloride	62	3.417	3.417	(0.516)	547438	150.000	127.37
4 Bromomethane	94	3.909	3.909	(0.590)	302383	150.000	129.55
5 Chloroethane	64	3.980	3.980	(0.601)	293885	150.000	104.71
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	487082	150.000	117.26
7 Acrolein	56	4.633	4.633	(0.700)	278099	750.000	536.71
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.701)	382218	150.000	117.53
9 Acetone	43	4.683	4.683	(0.707)	476748	750.000	546.84
10 1,1-Dichloroethene	96	4.844	4.844	(0.731)	372564	150.000	126.25
11 Bromoethane	108	5.055	5.055	(0.763)	295924	150.000	135.41
12 Iodomethane	142	5.156	5.156	(0.778)	498041	150.000	142.74
13 Methylene Chloride	84	5.276	5.276	(0.797)	383620	150.000	115.45
14 Acrylonitrile	53	5.357	5.357	(0.809)	107704	150.000	139.92(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	613756	150.000	135.24(Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	1021453	150.000	111.60(Q)
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	357903	150.000	142.31(Q)
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	559418	150.000	127.00
	19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	586536	150.000	126.78
	20 2-Butanone	43	6.281	6.281	(0.948)	627000	750.000	639.16
	21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	409501	150.000	144.65
	22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.982)	321064	150.000	144.85(Q)
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	155784	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	501605	150.000	133.48
	26 Bromochloromethane	128	6.814	6.814	(1.029)	155161	150.000	147.44
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	89065	50.0000	47.969(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.062)	410583	150.000	140.47
	29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	432896	150.000	139.46
	30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	377891	150.000	140.00
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	96098	50.0000	47.300
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	373218	150.000	136.97
	33 Benzene	78	7.447	7.447	(0.975)	746304	150.000	99.432
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	228573	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	307337	150.000	139.76
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	322596	150.000	136.35
	37 Bromodichloromethane	83	8.402	8.402	(1.100)	353775	150.000	139.85
	39 Dibromomethane	93	8.472	8.472	(1.109)	162509	150.000	138.36
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	128070	150.000	154.56(Q)
	41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	417853	750.000	691.54(Q)
	42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.167)	424803	150.000	153.81
$	43 d8-Toluene	98	9.186	9.186	(1.203)	239633	50.0000	47.713
	44 Toluene	92	9.266	9.266	(1.213)	537240	150.000	120.64(Q)
	45 Trans 1,3-Dichloropropene	75	9.397	9.397	(1.230)	359227	150.000	154.74
	46 2-Hexanone	43	9.537	9.537	(0.884)	658433	750.000	450.96(Q)
	47 1,1,2-Trichloroethane	97	9.578	9.578	(1.254)	199640	150.000	144.00
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	362456	150.000	144.18
	49 Tetrachloroethene	166	9.960	9.960	(0.924)	291013	150.000	146.65
	50 Chlorodibromomethane	129	10.171	10.171	(0.943)	256549	150.000	151.70
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	211704	150.000	142.56
*	52 d5-Chlorobenzene	117	10.784	10.784	(1.000)	178614	50.0000	
	53 Chlorobenzene	112	10.834	10.834	(1.005)	526215	150.000	125.61
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	719154	150.000	101.51(Q)
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	235095	150.000	146.62
	56 m,p-xylene	106	10.944	10.944	(1.015)	693534	300.000	267.84(Q)
	57 o-Xylene	106	11.437	11.437	(1.061)	443859	150.000	164.93(Q)
	58 Styrene	104	11.467	11.467	(1.063)	604009	150.000	145.16
	59 Isopropyl Benzene	105	11.809	11.809	(0.877)	765486	150.000	92.525
	60 Bromoform	173	11.869	11.869	(0.881)	184206	150.000	138.48
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	287454	150.000	120.26
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	109555	50.0000	52.409
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	59137	150.000	124.89

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	94977	150.000	129.29
66	N-Propyl Benzene	91	12.271	12.271	(0.911)	798434	150.000	74.759(Q)
67	Bromobenzene	156	12.351	12.351	(0.917)	321436	150.000	139.37(Q)
68	1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	708315	150.000	105.47(Q)
69	2-Chloro Toluene	91	12.502	12.502	(0.928)	729939	150.000	104.02
70	4-Chloro Toluene	91	12.542	12.542	(0.931)	684866	150.000	101.81
71	T-Butyl Benzene	119	12.854	12.854	(0.954)	722068	150.000	125.68
72	1,2,4-Trimethylbenzene	105	12.894	12.894	(0.957)	731940	150.000	110.71(Q)
73	S-Butyl Benzene	105	13.095	13.095	(0.972)	812152	150.000	85.922
74	4-Isopropyl Toluene	119	13.246	13.246	(0.984)	739478	150.000	114.02
75	1,3-Dichlorobenzene	146	13.387	13.387	(0.994)	545268	150.000	138.38
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	122904	50.0000	
77	1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	547350	150.000	138.82
78	N-Butyl Benzene	91	13.718	13.718	(1.019)	717047	150.000	102.38(Q)
$ 79	d4-1,2-Dichlorobenzene	152	13.909	13.909	(1.033)	108113	50.0000	48.361
80	1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	516441	150.000	137.91
81	1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	50577	150.000	122.29
82	1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	304271	150.000	133.52
83	Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	204107	150.000	132.98
84	Naphthalene	128	16.221	16.221	(1.204)	474513	150.000	114.80
85	1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	271577	150.000	124.65

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 1500723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD150
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

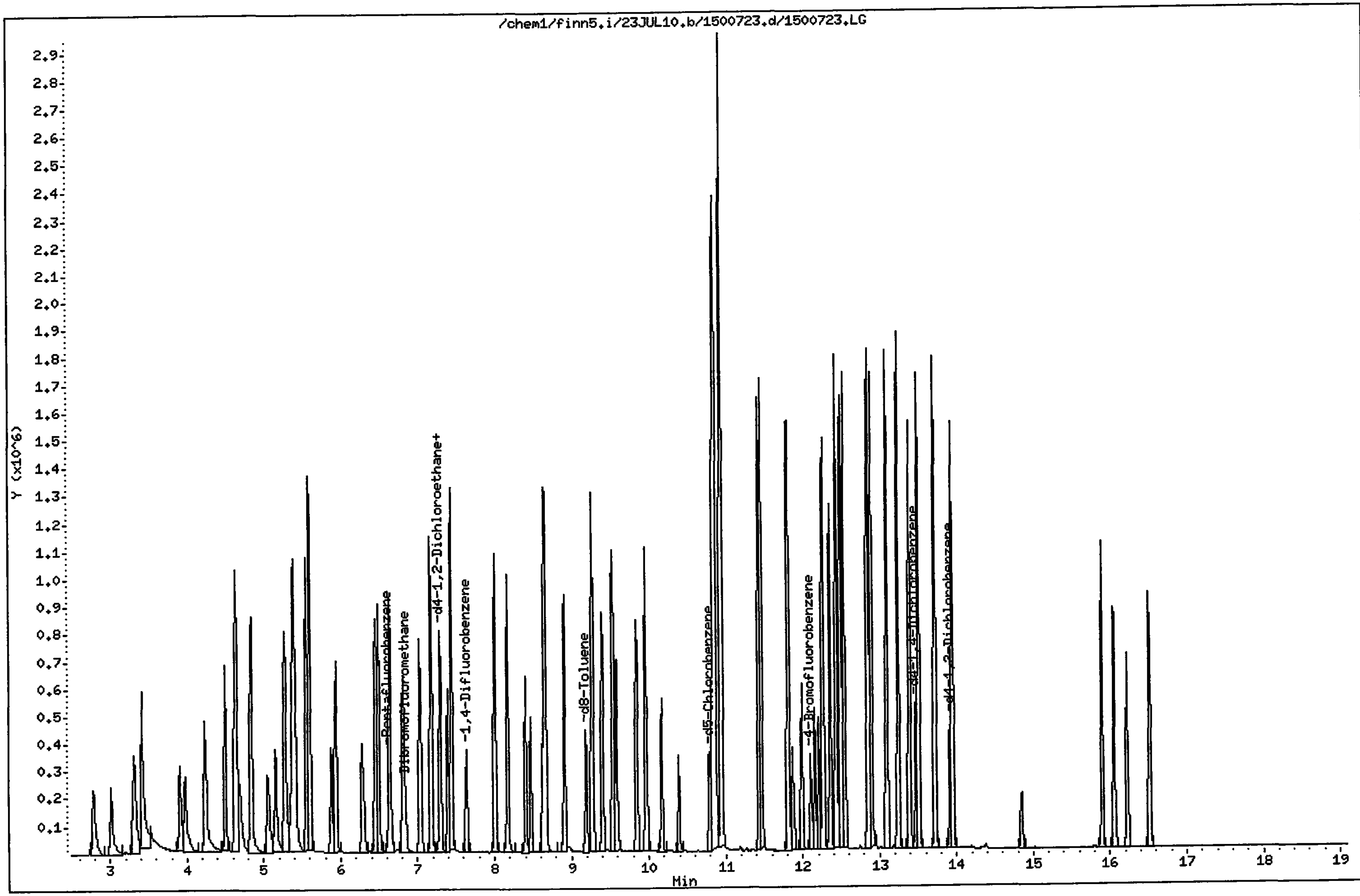
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	155784	18.81
34 1,4-Difluorobenze	191559	95780	383118	228573	19.32
52 d5-Chlorobenzene	161199	80600	322398	178614	10.80
76 d4-1,4-Dichlorobe	88279	44140	176558	122904	39.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.64	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/1500723.d
Date : 23-JUL-2010 17:49
Client ID: VSTD150
Sample Info: IC0723,5,5,0
Column phase: Rtx502.2

Instrument: finn5.i
Operator: PB
Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/2000723.d
Lab Smp Id: IC0723 Client Smp ID: VSTD200
Inj Date : 23-JUL-2010 17:18
Operator : PB Inst ID: finn5.i
Smp Info : IC0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.455)	382873	200.000	185.53
2 Chloromethane	50	3.316	3.316	(0.501)	831334	200.000	149.72
3 Vinyl Chloride	62	3.417	3.417	(0.516)	675701	200.000	153.89
4 Bromomethane	94	3.909	3.909	(0.590)	368903	200.000	154.71
5 Chloroethane	64	3.980	3.980	(0.601)	364783	200.000	127.22
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	615782	200.000	145.11
7 Acrolein	56	4.633	4.633	(0.700)	343518	1000.00	648.94
8 112Trichlorol22Trifluoroethane	101	4.643	4.643	(0.701)	482521	200.000	145.24
9 Acetone	43	4.693	4.693	(0.709)	560993	1000.00	629.87
10 1,1-Dichloroethene	96	4.844	4.844	(0.731)	470540	200.000	156.08(Q)
11 Bromoethane	108	5.055	5.055	(0.763)	376320	200.000	168.56
12 Iodomethane	142	5.156	5.156	(0.778)	652382	200.000	183.02
13 Methylene Chloride	84	5.276	5.276	(0.797)	495091	200.000	145.85(Q)
14 Acrylonitrile	53	5.367	5.367	(0.810)	139945	200.000	177.96(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.407	5.407	(0.816)	732622	200.000	158.02(Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	1217955	200.000	130.26(Q)
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	459768	200.000	178.95(Q)
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	672353	200.000	149.42
	19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	680449	200.000	143.96
	20 2-Butanone	43	6.291	6.291	(0.950)	785164	1000.00	783.47
	21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	544411	200.000	188.24
	22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.982)	438984	200.000	193.86
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	159149	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	610807	200.000	159.10
	26 Bromochloromethane	128	6.814	6.814	(1.029)	213240	200.000	198.34
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	84837	50.0000	44.726(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.062)	549252	200.000	183.94
	29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	545791	200.000	175.44
	30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	522753	200.000	193.23
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	89066	50.0000	42.912
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	485007	200.000	177.58
	33 Benzene	78	7.447	7.447	(0.975)	870526	200.000	115.72
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	229095	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	422519	200.000	191.70
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	435024	200.000	183.44
	37 Bromodichloromethane	83	8.412	8.412	(1.101)	471123	200.000	185.82
	39 Dibromomethane	93	8.472	8.472	(1.109)	228343	200.000	193.98
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	181565	200.000	218.62(Q)
	41 4-Methyl-2-Pentanone	58	8.663	8.663	(1.134)	536767	1000.00	886.32(Q)
	42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.167)	522307	200.000	188.68
$	43 d8-Toluene	98	9.186	9.186	(1.203)	239843	50.0000	47.646
	44 Toluene	92	9.276	9.276	(1.214)	647650	200.000	145.10(Q)
	45 Trans 1,3-Dichloropropene	75	9.407	9.407	(1.232)	465557	200.000	200.09
	46 2-Hexanone	43	9.537	9.537	(0.884)	763183	1000.00	544.40(Q)
	47 1,1,2-Trichloroethane	97	9.588	9.588	(1.255)	280030	200.000	201.53
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	469237	200.000	194.40
	49 Tetrachloroethene	166	9.960	9.960	(0.923)	404966	200.000	212.54
	50 Chlorodibromomethane	129	10.171	10.171	(0.942)	362369	200.000	223.17
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	296560	200.000	199.25
*	52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	171495	50.0000	
	53 Chlorobenzene	112	10.834	10.834	(1.004)	637891	200.000	158.58
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	844494	200.000	124.15(Q)
	55 1,1,1,2-Tetrachloroethane	131	10.864	10.864	(1.007)	337259	200.000	219.07
	56 m,p-xylene	106	10.944	10.944	(1.014)	845893	400.000	340.24(Q)
	57 o-Xylene	106	11.437	11.437	(1.060)	593625	200.000	229.74(Q)
	58 Styrene	104	11.467	11.467	(1.062)	750474	200.000	187.84(Q)
	59 Isopropyl Benzene	105	11.819	11.819	(0.878)	880078	200.000	89.802(Q)
	60 Bromoform	173	11.879	11.879	(0.882)	275819	200.000	175.04
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	411745	200.000	145.43
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	119170	50.0000	59.375
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	85172	200.000	151.85

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	138249	200.000	158.87
66	N-Propyl Benzene	91	12.271	12.271	(0.911)	919942	200.000	72.715(Q)
67	Bromobenzene	156	12.361	12.361	(0.918)	475914	200.000	174.20(Q)
68	1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	843459	200.000	106.02(Q)
69	2-Chloro Toluene	91	12.502	12.502	(0.928)	835546	200.000	100.51(Q)
70	4-Chloro Toluene	91	12.552	12.552	(0.932)	905693	200.000	113.66(Q)
71	T-Butyl Benzene	119	12.854	12.854	(0.954)	852231	200.000	125.22(Q)
72	1,2,4-Trimethylbenzene	105	12.904	12.904	(0.958)	866210	200.000	110.61(Q)
73	S-Butyl Benzene	105	13.095	13.095	(0.972)	959505	200.000	85.695(Q)
74	4-Isopropyl Toluene	119	13.246	13.246	(0.984)	862152	200.000	112.22(Q)
75	1,3-Dichlorobenzene	146	13.397	13.397	(0.995)	707131	200.000	151.50
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	145587	50.0000	
77	1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	703363	200.000	150.59
78	N-Butyl Benzene	91	13.728	13.728	(1.019)	866011	200.000	104.39(Q)
$ 79	d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.034)	127083	50.0000	47.990
80	1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	673403	200.000	151.80
81	1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	74509	200.000	152.08
82	1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	430578	200.000	159.50
83	Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	315558	200.000	173.56
84	Naphthalene	128	16.231	16.231	(1.205)	551716	200.000	112.68
85	1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	376206	200.000	145.77

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 2000723.d
Lab Smp Id: IC0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: VSTD200
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	159149	21.38
34 1,4-Difluorobenze	191559	95780	383118	229095	19.60
52 d5-Chlorobenzene	161199	80600	322398	171495	6.39
76 d4-1,4-Dichlorobe	88279	44140	176558	145587	64.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.64	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/finn5.i/23JUL10.b/2000723.d

Date : 23-JUL-2010 17:18

Client ID: VSTD200

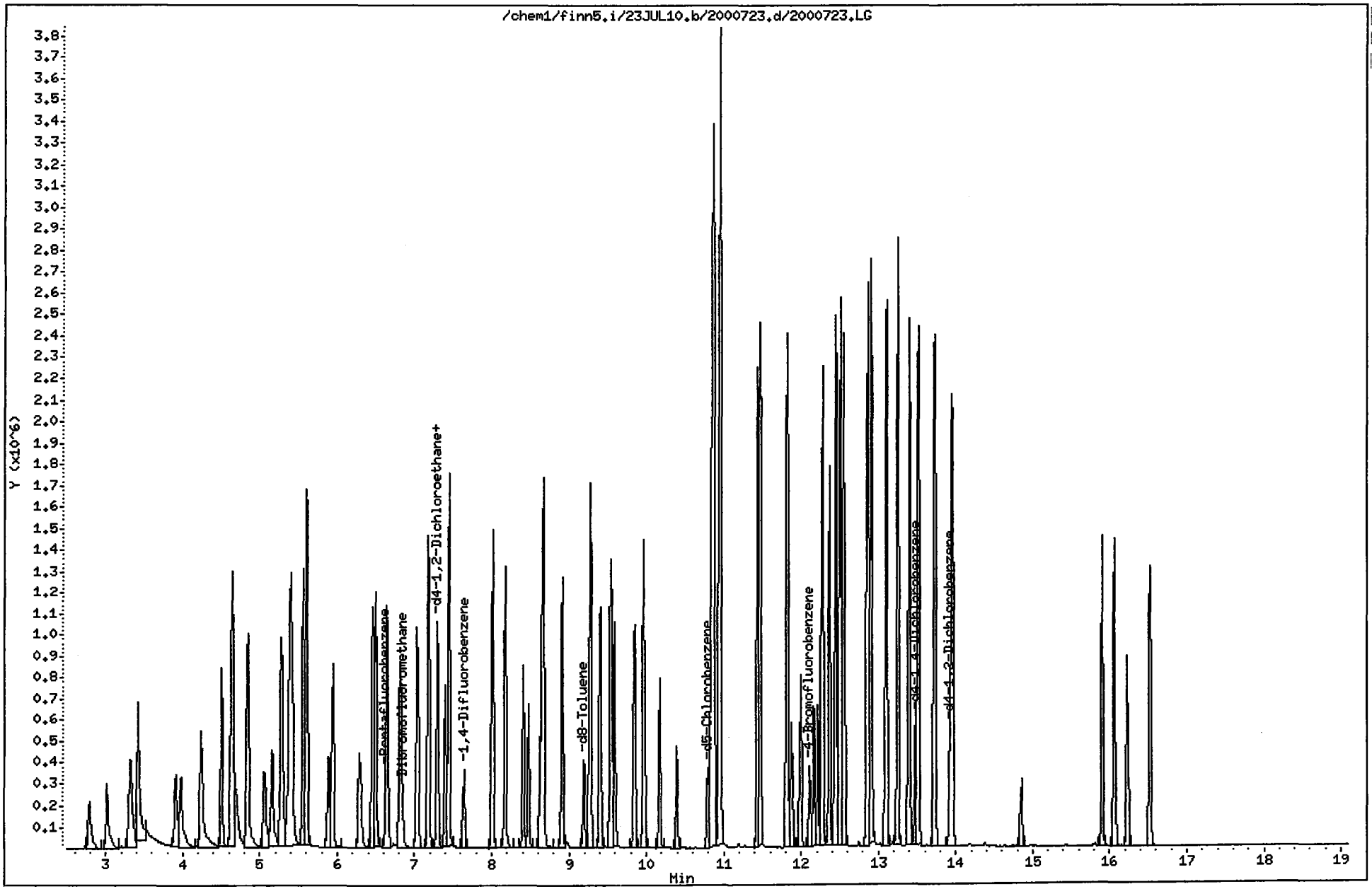
Instrument: finn5.i

Sample Info: IC0723,5,5,0

Operator: PB

Column phase: Rtx502.2

Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/23JUL10.b/ICV0723.d
Lab Smp Id: ICV0723 Client Smp ID: ICV0723
Inj Date : 23-JUL-2010 22:14
Operator : PB Inst ID: finn5.i
Smp Info : ICV0723,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/23JUL10.b/s8260b.m
Meth Date : 29-Jul-2010 14:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.015	(0.454)	88303	52.1032	52.103
2 Chloromethane	50	3.306	3.316	(0.499)	217848	47.7755	47.775
3 Vinyl Chloride	62	3.417	3.417	(0.516)	192357	53.3461	53.346
4 Bromomethane	94	3.909	3.909	(0.590)	122206	62.4063	62.406
5 Chloroethane	64	3.980	3.980	(0.601)	123869	52.6030	52.603
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	196733	56.4516	56.452
7 Acrolein	56	4.623	4.633	(0.698)	109928	252.871	252.87
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.701)	142159	52.1041	52.104
9 Acetone	43	4.683	4.693	(0.707)	183316	250.626	250.63
10 1,1-Dichloroethene	96	4.834	4.844	(0.730)	130784	52.8244	52.824
11 Bromoethane	108	5.055	5.055	(0.763)	98954	53.9712	53.971
12 Iodomethane	142	5.156	5.156	(0.778)	164327	56.1364	56.136
13 Methylene Chloride	84	5.276	5.276	(0.797)	130295	46.7382	46.738
14 Acrylonitrile	53	5.357	5.367	(0.809)	36679	56.7973	56.797(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.407	(0.815)	193967	50.9456	50.946(Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	446067	58.0915	58.092
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	107789	51.0864	51.086
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	205828	55.6982	55.698
	19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	207542	53.4687	53.469
	20 2-Butanone	43	6.281	6.291	(0.948)	220070	267.396	267.40
	21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	115299	48.5440	48.544
	22 Cis-1,2-Dichloroethene	96	6.492	6.502	(0.980)	96880	52.0962	52.096
*	23 Pentafluorobenzene	168	6.623	6.623	(1.000)	130699	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	163311	51.7971	51.797
	26 Bromochloromethane	128	6.804	6.814	(1.027)	45855	51.9357	51.936
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	79530	51.0546	51.055(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.062)	121554	49.5682	49.568
	29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	128897	48.8768	48.877
	30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	112147	48.9029	48.903
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	85607	50.2236	50.224
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	113558	49.0506	49.051
	33 Benzene	78	7.437	7.447	(0.974)	327392	51.3396	51.340
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	194200	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	89432	47.8663	47.866
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	96896	48.2020	48.202
	37 Bromodichloromethane	83	8.402	8.412	(1.100)	105966	49.3042	49.304
	39 Dibromomethane	93	8.472	8.472	(1.109)	50061	50.1678	50.168
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	36400	51.7056	51.706(Q)
	41 4-Methyl-2-Pentanone	58	8.653	8.663	(1.133)	124957	243.406	243.40
	42 Cis 1,3-dichloropropene	75	8.904	8.914	(1.166)	119381	50.8758	50.876
$	43 d8-Toluene	98	9.186	9.186	(1.203)	213419	50.0149	50.015
	44 Toluene	92	9.266	9.276	(1.213)	178106	47.0736	47.074
	45 Trans 1,3-Dichloropropene	75	9.397	9.407	(1.230)	97312	49.3376	49.338
	46 2-Hexanone	43	9.527	9.537	(0.884)	302971	230.222	230.22
	47 1,1,2-Trichloroethane	97	9.578	9.588	(1.254)	58163	49.3789	49.379
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	111278	49.1112	49.111
	49 Tetrachloroethene	166	9.960	9.960	(0.924)	77284	43.2093	43.209
	50 Chlorodibromomethane	129	10.161	10.171	(0.942)	74343	48.7727	48.773
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	60617	48.0450	48.045
*	52 d5-Chlorobenzene	117	10.784	10.794	(1.000)	160989	50.0000	
	53 Chlorobenzene	112	10.824	10.834	(1.004)	173699	46.0010	46.001
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	323591	50.6763	50.676
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.864	(1.007)	63372	43.8510	43.851
	56 m,p-xylene	106	10.944	10.944	(1.015)	245109	105.022	105.02
	57 o-Xylene	106	11.427	11.437	(1.060)	120691	49.7567	49.757
	58 Styrene	104	11.457	11.467	(1.062)	197449	52.6464	52.646
	59 Isopropyl Benzene	105	11.809	11.819	(0.877)	319484	52.7192	52.719
	60 Bromoform	173	11.869	11.879	(0.881)	46057	47.2689	47.269
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	81604	46.6101	46.610
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	92917	49.3160	49.316
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	16385	47.2399	47.240

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	26774	49.7563	49.756
	66 N-Propyl Benzene	91	12.261	12.271	(0.910)	379504	48.5107	48.511
	67 Bromobenzene	156	12.351	12.361	(0.917)	77896	46.1089	46.109
	68 1,3,5-Trimethyl Benzene	105	12.432	12.442	(0.923)	260307	52.9158	52.916
	69 2-Chloro Toluene	91	12.492	12.502	(0.928)	265535	51.6571	51.657
	70 4-Chloro Toluene	91	12.542	12.552	(0.931)	238191	48.3413	48.341
	71 T-Butyl Benzene	119	12.844	12.854	(0.954)	232736	55.3018	55.302
	72 1,2,4-Trimethylbenzene	105	12.894	12.904	(0.957)	256248	52.9143	52.914
	73 S-Butyl Benzene	105	13.095	13.095	(0.972)	356050	51.4252	51.425
	74 4-Isopropyl Toluene	119	13.236	13.246	(0.983)	257043	54.1060	54.106
	75 1,3-Dichlorobenzene	146	13.387	13.397	(0.994)	136992	47.4636	47.464
*	76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	90026	50.0000	
	77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	134851	46.6906	46.691
	78 N-Butyl Benzene	91	13.718	13.728	(1.019)	266189	51.8878	51.888
$	79 d4-1,2-Dichlorobenzene	152	13.909	13.919	(1.033)	82049	50.1059	50.106
	80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	130036	47.4052	47.405
	81 1,2-Dibromo 3-Chloropropane	75	14.844	14.854	(1.102)	14043	46.3542	46.354
	82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	62702	37.5627	37.563(R)
	83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	47253	42.0301	42.030
	84 Naphthalene	128	16.221	16.231	(1.204)	125569	41.4735	41.473
	85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	61205	38.3513	38.351

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: ICV0723.d
Lab Smp Id: ICV0723
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

Calibration Date: 23-JUL-2010
Calibration Time: 18:42
Client Smp ID: ICV0723
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	130699	-0.32
34 1,4-Difluorobenze	191559	95780	383118	194200	1.38
52 d5-Chlorobenzene	161199	80600	322398	160989	-0.13
76 d4-1,4-Dichlorobe	88279	44140	176558	90026	1.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.62	0.00
34 1,4-Difluorobenze	7.63	7.13	8.13	7.64	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.78	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 23JUL10
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: ICV0723 Client Smp ID: ICV0723
Level: LOW Operator: PB
Data Type: MS DATA SampleType: LCS
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/23JUL10.b/s8260b.m
Misc Info: 10-

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	52.103	104.21	53-148
2	Chloromethane	50.000	47.775	95.55	64-125
3	Vinyl Chloride	50.000	53.346	106.69	63-137
4	Bromomethane	50.000	62.406	124.81	57-136
5	Chloroethane	50.000	52.603	105.21	64-131
6	Trichlorofluoromet	50.000	56.452	112.90	69-132
7	Acrolein	250.00	252.87	101.15	54-137
8	112Trichloro122Tri	50.000	52.104	104.21	74-130
9	Acetone	250.00	250.63	100.25	60-131
10	1,1-Dichloroethene	50.000	52.824	105.65	75-126
11	Bromoethane	50.000	53.971	107.94	76-126
12	Iodomethane	50.000	56.136	112.27	65-139
13	Methylene Chloride	50.000	46.738	93.48	70-123
15	Carbon Disulfide	50.000	58.092	116.18	71-129
14	Acrylonitrile	50.000	56.797	113.59	67-125
16	Methyl tert-Butyl	50.000	50.946	101.89	70-120
17	Trans-1,2-Dichloro	50.000	51.086	102.17	80-120
18	Vinyl Acetate	50.000	55.698	111.40	60-136
19	1,1-Dichloroethane	50.000	53.469	106.94	80-120
20	2-Butanone	250.00	267.40	106.96	70-120
21	2,2-Dichloropropan	50.000	48.544	97.09	74-123
22	Cis-1,2-Dichloroet	50.000	52.096	104.19	80-120
24	Chloroform	50.000	51.797	103.59	80-120
26	Bromochloromethane	50.000	51.936	103.87	80-120
27	1,1,1-Trichloroeth	50.000	49.568	99.14	77-121
29	1,1-Dichloropropen	50.000	48.877	97.75	80-120
30	Carbon Tetrachlori	50.000	48.903	97.81	77-122
32	1,2-Dichloroethane	50.000	49.051	98.10	76-120
33	Benzene	50.000	51.340	102.68	80-120
35	Trichloroethene	50.000	47.866	95.73	80-120
36	1,2-Dichloropropan	50.000	48.202	96.40	80-120
37	Bromodichlorometha	50.000	49.304	98.61	77-121
39	Dibromomethane	50.000	50.168	100.34	80-120

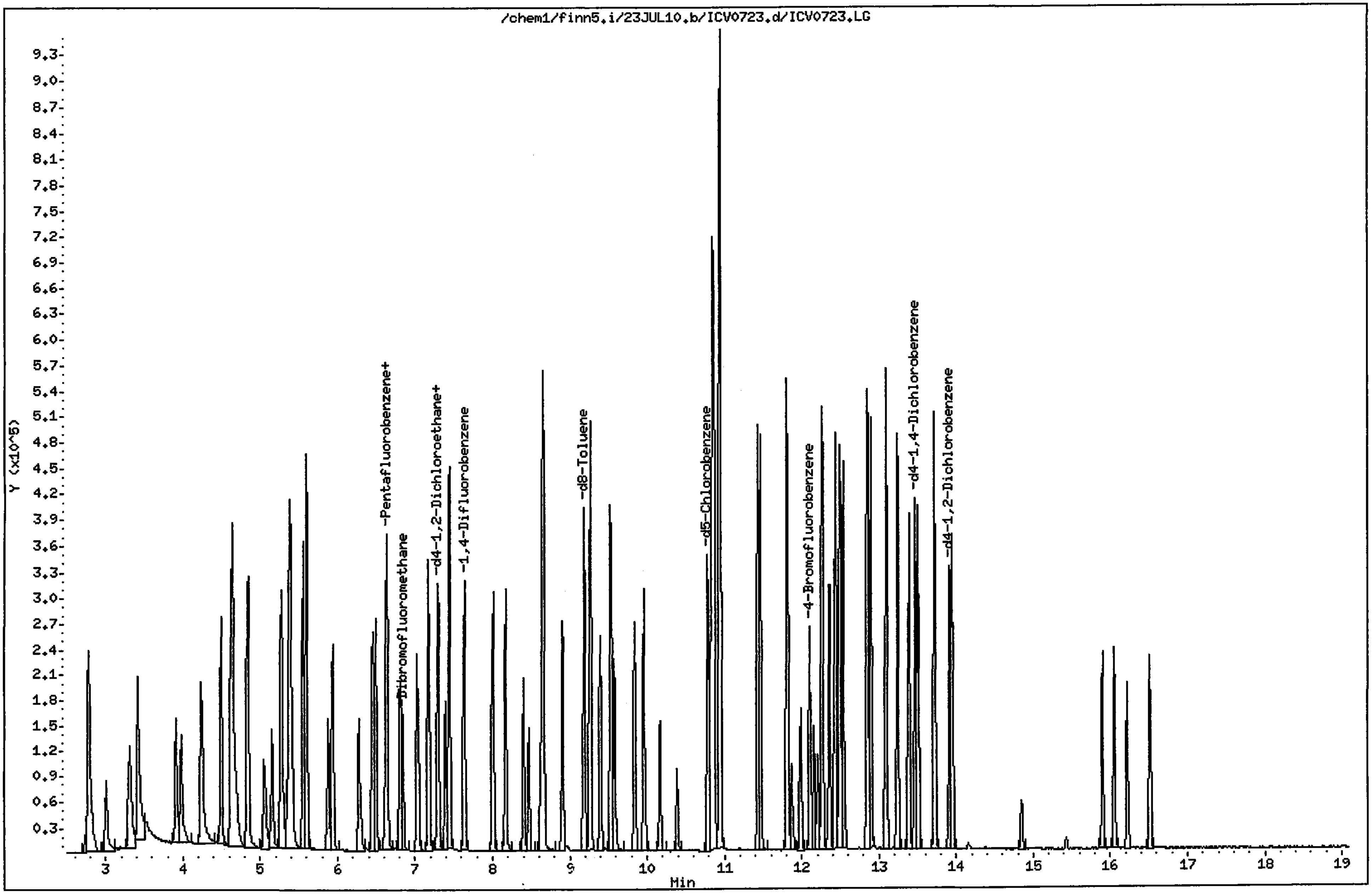
SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	51.706	103.41	10-191
41 4-Methyl-2-Pentano	250.00	243.40	97.36	67-120
42 Cis 1,3-dichloropr	50.000	50.876	101.75	74-120
44 Toluene	50.000	47.074	94.15	80-120
45 Trans 1,3-Dichloro	50.000	49.338	98.68	65-120
46 2-Hexanone	250.00	230.22	92.09	65-130
47 1,1,2-Trichloroeth	50.000	49.379	98.76	80-120
48 1,3-Dichloropropan	50.000	49.111	98.22	80-120
49 Tetrachloroethene	50.000	43.209	86.42	80-121
50 Chlorodibromometha	50.000	48.773	97.55	64-120
51 1,2-Dibromoethane	50.000	48.045	96.09	75-120
53 Chlorobenzene	50.000	46.001	92.00	80-120
55 1,1,1,2-Tetrachlor	50.000	43.851	87.70	69-121
54 Ethyl Benzene	50.000	50.676	101.35	80-127
56 m,p-xylene	100.00	105.02	105.02	80-125
57 o-Xylene	50.000	49.757	99.51	78-120
58 Styrene	50.000	52.646	105.29	80-123
59 Isopropyl Benzene	50.000	52.719	105.44	80-127
60 Bromoform	50.000	47.269	94.54	60-120
61 1,1,2,2-Tetrachlor	50.000	46.610	93.22	74-120
63 1,2,3-Trichloropro	50.000	47.240	94.48	72-121
65 Trans-1,4-Dichloro	50.000	49.756	99.51	65-126
66 N-Propyl Benzene	50.000	48.511	97.02	80-132
67 Bromobenzene	50.000	46.109	92.22	80-120
68 1,3,5-Trimethyl Be	50.000	52.916	105.83	80-125
69 2-Chloro Toluene	50.000	51.657	103.31	80-125
70 4-Chloro Toluene	50.000	48.341	96.68	80-127
71 T-Butyl Benzene	50.000	55.302	110.60	87-122
72 1,2,4-Trimethylben	50.000	52.914	105.83	80-126
73 S-Butyl Benzene	50.000	51.425	102.85	80-134
74 4-Isopropyl Toluen	50.000	54.106	108.21	80-131
75 1,3-Dichlorobenzen	50.000	47.464	94.93	80-120
77 1,4-Dichlorobenzen	50.000	46.691	93.38	80-120
78 N-Butyl Benzene	50.000	51.888	103.78	80-138
80 1,2-Dichlorobenzen	50.000	47.405	94.81	80-120
81 1,2-Dibromo 3-Chlo	50.000	46.354	92.71	59-120
82 1,2,4-Trichloroben	50.000	37.563	75.13*	78-130
83 Hexachloro 1,3-But	50.000	42.030	84.06	76-129
84 Naphthalene	50.000	41.473	82.95	66-120
85 1,2,3-Trichloroben	50.000	38.351	76.70	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	51.055	102.11	30-160

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	50.000	50.224	100.45	75-152
$ 43 d8-Toluene	50.000	50.015	100.03	82-115
$ 62 4-Bromofluorobenze	50.000	49.316	98.63	64-120
$ 79 d4-1,2-Dichloroben	50.000	50.106	100.21	80-120

Data File: /chem1/finn5.i/23JUL10.b/ICV0723.d
Date : 23-JUL-2010 22:14
Client ID: ICV0723
Sample Info: ICV0723,5,5,0
Column phase: Rtx502.2

Instrument: finn5.i
Operator: PB
Column diameter: 0.18



Volatile Raw Data
Run Logs, Continuing Calibrations, and Raw Data

ARI Job ID: RG51

Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: RG51 Client ID: Floyd Snider

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): _____

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 7/23/10 Analysis Start Date: 8/6/10

pH ≤ 2.0	YES / NO / NA	Method Blank In Control?	YES / NO
BFB Tune Meets Criteria?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Surrogate Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO / NA	Q flag applied?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO
Special Analysis Criteria Met?	YES / NO / NA		

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Samples A-C run - acquisition froze on sample D in computer system - all other data following was lost

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 8/6/10

Reviewer: MW **Date:** 8/9/10

Analytical Resources Inc.: Organics Instrument Log

FINN5 Serial No.: 5500-000421A

Date: 8/2/10 Analysis: 8260 Analyst: LP

GC Program: FS Column No: 801729 Column Type: RTX-502.2

Instrument Tune (.U or .CT.): BFB0802 EM Voltage: 1599

Calibration File: 0500802 Curve Date: 7/23/10

IS/SS	Ical/Ccal	LCS/ICV
Val 648-1	W646-2	W646-3

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/finn5.i/02AUG10.b

	Time	Filename	LabID	ClientID	WT									
1	1649	BFB0802.d	BFB0802	BFB0802	0.00									
2	1723	0500802.d	CC0802	VSTD050	5.00	6.63	97231	7.64	134525	10.79	113608	13.47	61231	
3	1824	LCS0802.d	LCS0802	LCS0802	5.00	6.62	89180	7.64	129391	10.78	106762	13.47	58659	
4	1857	LCS0802A.d	LCS0802	LCS0802	5.00	6.63	97066	7.65	140229	10.79	118689	13.48	64347	
5	1950	MB0802.d	MB0802	MB0802	5.00	6.63	91877	7.65	128423	10.79	108723	13.48	53818	
6	2021	RF74A.d	RF74A	SYASB01-5	5.00	6.61	88742	7.62	124698	10.77	96039	13.46	37393	
7	2056	RF74B.d	RF74B	SYASB01-8	5.00	6.61	91879	7.63	132543	10.77	104832	13.46	39901	
8	2122	RF74C.d	RF74C	SYASB01-8S	5.00	6.62	96131	7.64	138317	10.78	119188	13.47	56908	
9	2149	RF80A2.d	RF80A	SYASB05-5	5.00	6.63	92498	7.64	129901	10.78	96104	13.47	34236	
10	2215	RF80B2.d	RF80B	SYASB05-5S	5.00	6.62	77669	7.64	87265	10.78	34757	13.47	7597	
11	2241	RF80A3.d	RF80A	SYASB05-5	5.00	6.61	82491	7.63	118567	10.77	97483	13.46	42184	
12	2308	RF80B3.d	RF80B	SYASB05-5S	5.00	6.63	80020	7.64	112593	10.79	98443	13.47	52766	
13	2334	RG66A.d	RG66A	P2IM-DB-WC-0665-S	5.00	6.62	85872	7.63	121776	10.78	111032	13.47	53418	
14	0000	RG66B.d	RG66B	P2IM-DB-WC-0615-S	5.00	6.61	81868	7.63	122206	10.77	103771	13.46	47965	
15	0027	RG51A.d	RG51A	PSB12-0-0.5-072810	5.00	6.63	96287	7.64	141895	10.79	121920	13.47	58871	
16	0053	RG51B.d	RG51B	PSB12-1.5-2.0-07281	5.00	6.62	84498	7.64	125463	10.78	104826	13.47	43188	
17	0119	RG51C.d	RG51C	PSB12-2-4-072810	5.00	6.61	84168	7.63	120928	10.77	92903	13.46	36001	

run acquisition finished

Maintenance / Comments

LP 8/3/10

Maintenance Verification (Identify ICal or CCal that demonstrates the instrument is in control):

Every line must contain information or be lined out. Make all entries legible. Start a new page for each QC period.

Data File: /chem1/finn5.i/02AUG10.b/BFB0802.d

Date : 02-AUG-2010 16:49

Client ID: BFB0802

Instrument: finn5.i

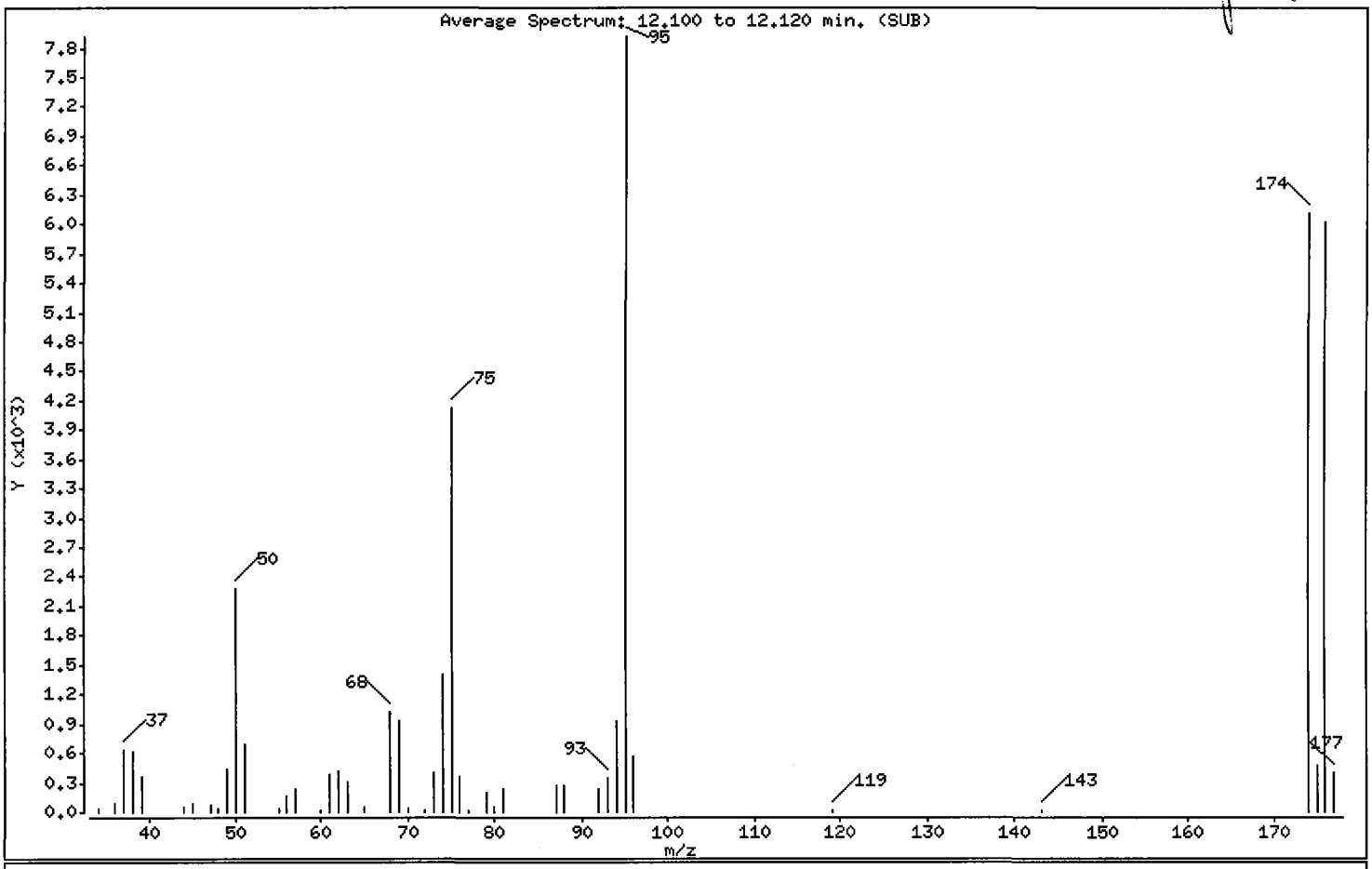
Sample Info: BFB0802,BFB0802,,1,02AUG10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	28.80
75	30.00 - 66.00% of mass 95	52.11
96	5.00 - 9.00% of mass 95	7.07
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 101.00% of mass 95	77.30
175	4.00 - 9.00% of mass 174	5.95 (7.69)
176	93.00 - 101.00% of mass 174	75.92 (98.22)
177	5.00 - 9.00% of mass 176	5.11 (6.74)

Data File: /chem1/finn5.i/02AUG10.b/BFB0802.d

Date : 02-AUG-2010 16:49

Client ID: BFB0802

Instrument: finn5.i

Sample Info: BFB0802,BFB0802,,1,02AUG10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

Data File: BFB0802.d
Spectrum: Average Spectrum: 12.100 to 12.120 min. (SUB)
Location of Maximum: 95.00
Number of points: 45

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34.00	32	55.00	36	73.00	406	94.00	929
36.00	84	56.00	156	74.00	1402	95.00	7920
37.00	647	57.00	244	75.00	4127	96.00	560
38.00	621	60.00	18	76.00	361	119.00	17
39.00	360	61.00	379	77.00	19	143.00	25
44.00	49	62.00	414	79.00	205	174.00	6122
45.00	98	63.00	311	80.00	60	175.00	471
47.00	76	65.00	48	81.00	243	176.00	6013
48.00	28	68.00	1021	87.00	278	177.00	405
49.00	447	69.00	925	88.00	278		
50.00	2281	70.00	33	92.00	231		
51.00	691	72.00	25	93.00	349		

Data File: /chem1/finn5.i/02AUG10.b/BFB0802.d

Date : 02-AUG-2010 16:49

Client ID: BFB0802

Sample Info: BFB0802,BFB0802,,1,02AUG10,,

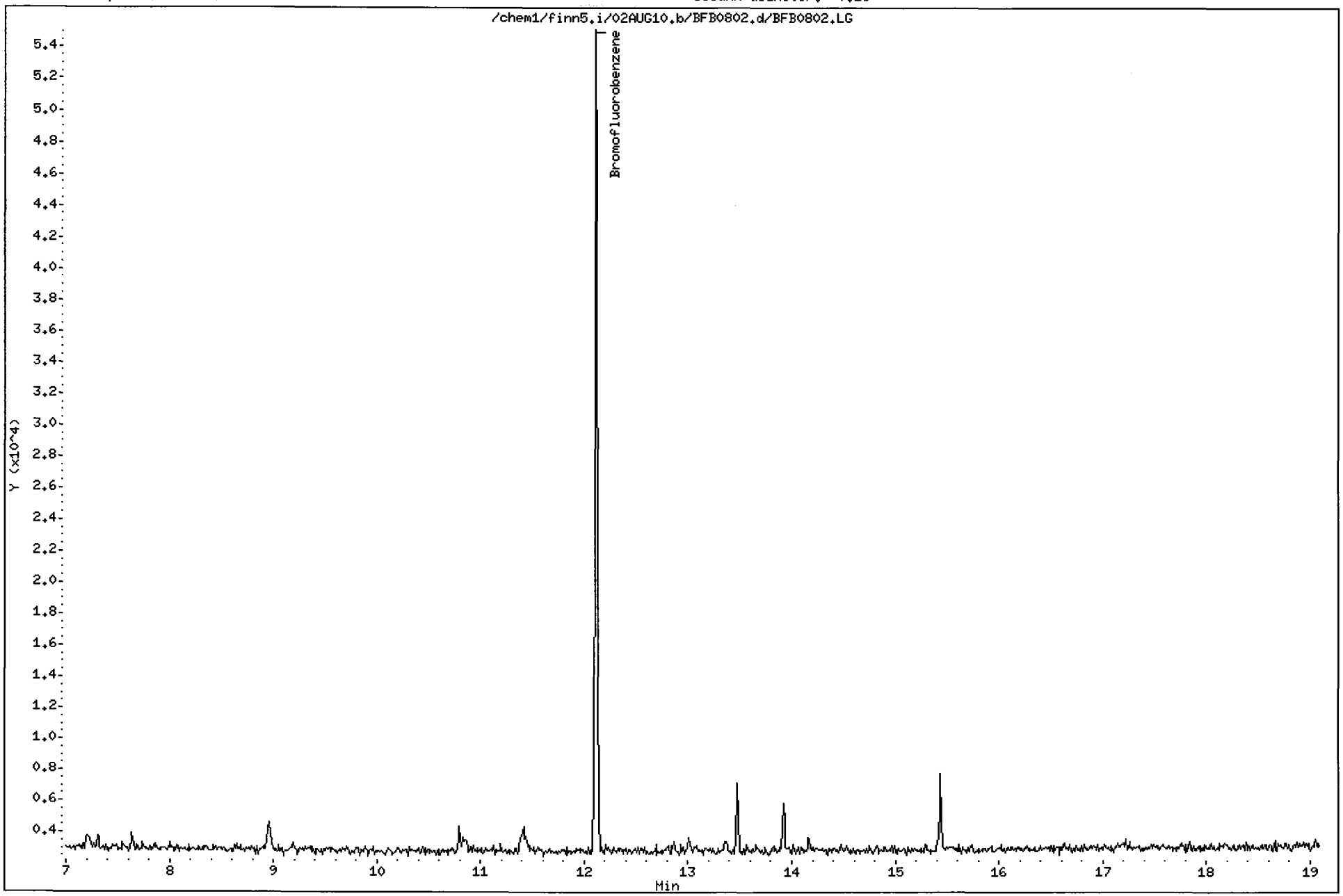
Column phase: RTX502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18

RG51 : 66323



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/0500802.d
Lab Smp Id: CC0802 Client Smp ID: VSTD050
Inj Date : 02-AUG-2010 17:23
Operator : PB Inst ID: finn5.i
Smp Info : CC0802,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 02-Aug-2010 18:43 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.455)	60356	50.0000	47.872
2 Chloromethane	50	3.316	3.316	(0.500)	127672	50.0000	37.637
3 Vinyl Chloride	62	3.427	3.427	(0.517)	116625	50.0000	43.476
4 Bromomethane	94	3.919	3.919	(0.591)	85123	50.0000	58.432
5 Chloroethane	64	3.980	3.980	(0.600)	81672	50.0000	46.621
6 Trichlorofluoromethane	101	4.241	4.241	(0.639)	126680	50.0000	48.862
7 Acrolein	56	4.633	4.633	(0.698)	66729	250.000	206.33
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.700)	87728	50.0000	43.221
9 Acetone	43	4.683	4.683	(0.706)	118811	250.000	218.35
10 1,1-Dichloroethene	96	4.844	4.844	(0.730)	81002	50.0000	43.978
11 Bromoethane	108	5.065	5.065	(0.764)	61001	50.0000	44.723
12 Iodomethane	142	5.166	5.166	(0.779)	115447	50.0000	53.013
13 Methylene Chloride	84	5.276	5.276	(0.795)	78784	50.0000	37.988
14 Acrylonitrile	53	5.357	5.357	(0.808)	21736	50.0000	45.244(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.814)	130176	50.0000	45.959(Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.811)	269132	50.0000	47.113
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.838)	67318	50.0000	42.888
	18 Vinyl Acetate	43	5.879	5.879	(0.886)	131578	50.0000	47.861
	19 1,1-Dichloroethane	63	5.940	5.940	(0.895)	132047	50.0000	45.728
	20 2-Butanone	43	6.281	6.281	(0.947)	136606	250.000	223.11
	21 2,2-Dichloropropane	77	6.462	6.462	(0.974)	83639	50.0000	47.335
	22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.980)	61493	50.0000	44.449
*	23 Pentafluorobenzene	168	6.633	6.633	(1.000)	97231	50.0000	
	24 Chloroform	83	6.643	6.643	(1.002)	105556	50.0000	45.003
	26 Bromochloromethane	128	6.814	6.814	(1.027)	29173	50.0000	44.416
$	25 Dibromofluoromethane	111	6.844	6.844	(1.032)	54663	50.0000	47.170(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.061)	82129	50.0000	45.019
	29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	84943	50.0000	46.498
	30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	73556	50.0000	46.304
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.101)	60209	50.0000	47.482
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	77003	50.0000	48.015
	33 Benzene	78	7.447	7.447	(0.975)	207525	50.0000	46.979
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	134525	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	58570	50.0000	45.254
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	62210	50.0000	44.676
	37 Bromodichloromethane	83	8.412	8.412	(1.101)	70603	50.0000	47.423
	39 Dibromomethane	93	8.472	8.472	(1.109)	31662	50.0000	45.805
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	25154	50.0000	51.582
	41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	81115	250.000	228.10
	42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.167)	81471	50.0000	50.122
$	43 d8-Toluene	98	9.186	9.186	(1.203)	159121	50.0000	53.832
	44 Toluene	92	9.276	9.276	(1.214)	117165	50.0000	44.704
	45 Trans 1,3-Dichloropropene	75	9.407	9.407	(1.232)	67209	50.0000	49.191
	46 2-Hexanone	43	9.537	9.537	(0.884)	194292	250.000	209.21
	47 1,1,2-Trichloroethane	97	9.588	9.588	(1.255)	37661	50.0000	46.157
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	71901	50.0000	44.967
	49 Tetrachloroethene	166	9.960	9.960	(0.923)	54889	50.0000	43.487
	50 Chlorodibromomethane	129	10.171	10.171	(0.942)	49487	50.0000	46.006
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	40152	50.0000	45.942
*	52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	113608	50.0000	
	53 Chlorobenzene	112	10.834	10.834	(1.004)	119173	50.0000	44.723
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	219454	50.0000	48.701
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.006)	42870	50.0000	42.036
	56 m,p-xylene	106	10.944	10.944	(1.014)	167256	100.000	101.55
	57 o-Xylene	106	11.437	11.437	(1.060)	80909	50.0000	47.267
	58 Styrene	104	11.467	11.467	(1.062)	133417	50.0000	50.409
	59 Isopropyl Benzene	105	11.819	11.819	(0.878)	217359	50.0000	52.734
	60 Bromoform	173	11.879	11.879	(0.882)	30982	50.0000	46.752
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	50977	50.0000	42.810
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	65386	50.0000	49.178
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	10819	50.0000	45.864

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	18395	50.0000	50.263
	66 N-Propyl Benzene	91	12.271	12.271	(0.911)	267037	50.0000	50.187
	67 Bromobenzene	156	12.361	12.361	(0.918)	53105	50.0000	46.217
	68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	181127	50.0000	54.135
	69 2-Chloro Toluene	91	12.502	12.502	(0.928)	168962	50.0000	48.327
	70 4-Chloro Toluene	91	12.542	12.542	(0.931)	170705	50.0000	50.937
	71 T-Butyl Benzene	119	12.854	12.854	(0.954)	156449	50.0000	54.657
	72 1,2,4-Trimethylbenzene	105	12.904	12.904	(0.958)	179028	50.0000	54.354
	73 S-Butyl Benzene	105	13.095	13.095	(0.972)	239570	50.0000	50.874
	74 4-Isopropyl Toluene	119	13.246	13.246	(0.984)	181290	50.0000	56.106
	75 1,3-Dichlorobenzene	146	13.397	13.397	(0.995)	98554	50.0000	50.204
*	76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	61231	50.0000	
	77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	96077	50.0000	48.909
	78 N-Butyl Benzene	91	13.718	13.718	(1.019)	191820	50.0000	54.975
$	79 d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.034)	55309	50.0000	49.661
	80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	88618	50.0000	47.499
	81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	9208	50.0000	44.690
	82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	53040	50.0000	46.717
	83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	37136	50.0000	48.565
	84 Naphthalene	128	16.221	16.221	(1.204)	87256	50.0000	42.372
	85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	45938	50.0000	42.322

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0500802.d
Lab Smp Id: CC0802
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: VSTD050
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	97231	-25.84
34 1,4-Difluorobenze	191559	95780	383118	134525	-29.77
52 d5-Chlorobenzene	161199	80600	322398	113608	-29.52
76 d4-1,4-Dichlorobe	88279	44140	176558	61231	-30.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.63	0.15
34 1,4-Difluorobenze	7.63	7.13	8.13	7.64	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i
Lab File ID: 0500802.d
Analysis Type: SOIL
Lab Sample ID: CC0802
Method: /chem1/finn5.i/02AUG10.b/s8260b.m

Injection Date: 02-AUG-2010 17:23
Init. Cal. Date(s): 23-JUL-2010 23-JUL-2010
Init. Cal. Times: 17:18 20:28
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 Dichlorodifluoromethane	0.64835	0.62075	0.010	-4.25686	20.00000	Averaged	
2 Chloromethane	1.74440	1.31307	0.100	-24.72646	20.00000	Averaged	<- n/a
3 Vinyl Chloride	1.37944	1.19945	0.010	-13.04793	20.00000	Averaged	
4 Bromomethane	0.74914	0.87547	0.010	16.86364	20.00000	Averaged	
5 Chloroethane	0.90084	0.83997	0.010	-6.75719	20.00000	Averaged	
6 Trichlorofluoromethane	1.33321	1.30286	0.010	-2.27617	20.00000	Averaged	
7 Acrolein	0.16631	0.13726	0.010	-17.46670	20.00000	Averaged	
8 112Trichloro122Trifluoroeth	1.04376	0.90226	0.010	-13.55707	20.00000	Averaged	
9 Acetone	0.27982	0.24439	0.010	-12.66101	20.00000	Averaged	
10 1,1-Dichloroethene	0.94715	0.83308	0.010	-12.04308	20.00000	Averaged	
11 Bromoethane	0.70140	0.62739	0.010	-10.55306	20.00000	Averaged	
12 Iodomethane	1.11986	1.18734	0.010	6.02613	20.00000	Averaged	
13 Methylene Chloride	1.06648	0.81028	0.010	-24.02324	20.00000	Averaged	<- n/a
14 Acrylonitrile	0.24705	0.22355	0.010	-9.51221	20.00000	Averaged	
16 Methyl tert-Butyl Ether	1.45653	1.33882	0.010	-8.08128	20.00000	Averaged	
15 Carbon Disulfide	2.93755	2.76794	0.010	-5.77380	20.00000	Averaged	
17 Trans-1,2-Dichloroethene	0.80717	0.69235	0.010	-14.22491	20.00000	Averaged	
18 Vinyl Acetate	1.41371	1.35324	0.010	-4.27759	20.00000	Averaged	
19 1,1-Dichloroethane	1.48492	1.35807	0.100	-8.54300	20.00000	Averaged	
20 2-Butanone	0.31485	0.28099	0.010	-10.75440	20.00000	Averaged	
21 2,2-Dichloropropane	0.90863	0.86020	0.010	-5.32997	20.00000	Averaged	
22 Cis-1,2-Dichloroethene	0.71142	0.63244	0.010	-11.10174	20.00000	Averaged	
24 Chloroform	1.20617	1.08561	0.010	-9.99478	20.00000	Averaged	
26 Bromochloromethane	0.33777	0.30004	0.010	-11.16891	20.00000	Averaged	
$ 25 Dibromofluoromethane	0.59593	0.56220	0.010	-5.65974	20.00000	Averaged	
27 1,1,1-Trichloroethane	0.93813	0.84468	0.010	-9.96150	20.00000	Averaged	
29 1,1-Dichloropropene	0.67899	0.63143	0.010	-7.00363	20.00000	Averaged	
30 Carbon Tetrachloride	0.59044	0.54679	0.010	-7.39246	20.00000	Averaged	
$ 31 d4-1,2-Dichloroethane	0.65208	0.61924	0.010	-5.03631	20.00000	Averaged	
32 1,2-Dichloroethane	0.59607	0.57241	0.010	-3.96910	20.00000	Averaged	
33 Benzene	1.64186	1.54265	0.010	-6.04249	20.00000	Averaged	
35 Trichloroethene	0.48104	0.43539	0.010	-9.49085	20.00000	Averaged	
36 1,2-Dichloropropane	0.51756	0.46245	0.010	-10.64845	20.00000	Averaged	
37 Bromodichloromethane	0.55335	0.52483	0.010	-5.15396	20.00000	Averaged	
39 Dibromomethane	0.25692	0.23536	0.010	-8.38973	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i Injection Date: 02-AUG-2010 17:23
Lab File ID: 0500802.d Init. Cal. Date(s): 23-JUL-2010 23-JUL-2010
Analysis Type: SOIL Init. Cal. Times: 17:18 20:28
Lab Sample ID: CC0802 Quant Type: ISTD
Method: /chem1/finn5.i/02AUG10.b/s8260b.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
40 2-Chloroethyl Vinyl Ether	0.18125	0.18699	0.001	3.16489	20.00000	Averaged
41 4-Methyl-2-Pentanone	0.13218	0.12060	0.010	-8.76094	20.00000	Averaged
42 Cis 1,3-dichloropropene	0.60415	0.60563	0.010	0.24442	20.00000	Averaged
$ 43 d8-Toluene	1.09864	1.18284	0.010	7.66409	20.00000	Averaged
44 Toluene	0.97414	0.87096	0.010	-10.59252	20.00000	Averaged
45 Trans 1,3-Dichloropropene	0.50782	0.49961	0.010	-1.61707	20.00000	Averaged
46 2-Hexanone	0.40872	0.34204	0.010	-16.31566	20.00000	Averaged
47 1,1,2-Trichloroethane	0.30327	0.27996	0.010	-7.68566	20.00000	Averaged
48 1,3-Dichloropropane	0.70372	0.63288	0.010	-10.06666	20.00000	Averaged
49 Tetrachloroethene	0.55550	0.48315	0.010	-13.02507	20.00000	Averaged
50 Chlorodibromomethane	0.47341	0.43559	0.010	-7.98848	20.00000	Averaged
51 1,2-Dibromoethane	0.32484	0.29848	0.010	-8.11540	20.00000	Averaged
53 Chlorobenzene	1.17275	1.04898	0.300	-10.55359	20.00000	Averaged
54 Ethyl Benzene	1.98319	1.93166	0.010	-2.59837	20.00000	Averaged
55 1,1,1,2-Tetrachloroethane	0.44884	0.37735	0.010	-15.92777	20.00000	Averaged
56 m,p-xylene	0.72486	0.73611	0.010	1.55193	20.00000	Averaged
57 o-Xylene	0.75335	0.71217	0.010	-5.46578	20.00000	Averaged
58 Styrene	1.16482	1.17436	0.010	0.81855	20.00000	Averaged
59 Isopropyl Benzene	3.36576	3.54983	0.010	5.46906	20.00000	Averaged
60 Bromoform	0.54116	0.50600	0.100	-6.49683	20.00000	Averaged
61 1,1,2,2-Tetrachloroethane	0.97237	0.83255	0.300	-14.38018	20.00000	Averaged
$ 62 4-Bromofluorobenzene	0.58517	0.57554	0.010	-1.64471	20.00000	Averaged
63 1,2,3-Trichloropropane	0.19264	0.17670	0.010	-8.27210	20.00000	Averaged
65 Trans-1,4-Dichloro 2-Butene	0.29886	0.30043	0.010	0.52587	20.00000	Averaged
66 N-Propyl Benzene	4.34491	4.36114	0.010	0.37357	20.00000	Averaged
67 Bromobenzene	0.93828	0.86729	0.010	-7.56602	20.00000	Averaged
68 1,3,5-Trimethyl Benzene	2.73214	2.95810	0.010	8.27038	20.00000	Averaged
69 2-Chloro Toluene	2.85492	2.75942	0.010	-3.34510	20.00000	Averaged
70 4-Chloro Toluene	2.73658	2.78789	0.010	1.87466	20.00000	Averaged
71 T-Butyl Benzene	2.33736	2.55507	0.010	9.31416	20.00000	Averaged
72 1,2,4-Trimethylbenzene	2.68961	2.92383	0.010	8.70809	20.00000	Averaged
73 S-Butyl Benzene	3.84536	3.91257	0.010	1.74781	20.00000	Averaged
74 4-Isopropyl Toluene	2.63853	2.96077	0.010	12.21255	20.00000	Averaged
75 1,3-Dichlorobenzene	1.60301	1.60956	0.010	0.40835	20.00000	Averaged
77 1,4-Dichlorobenzene	1.60408	1.56909	0.010	-2.18126	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i Injection Date: 02-AUG-2010 17:23
Lab File ID: 0500802.d Init. Cal. Date(s): 23-JUL-2010 23-JUL-2010
Analysis Type: SOIL Init. Cal. Times: 17:18 20:28
Lab Sample ID: CC0802 Quant Type: ISTD
Method: /chem1/finn5.i/02AUG10.b/s8260b.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
78 N-Butyl Benzene	2.84923	3.13273	0.010	9.95014	20.00000	Averaged
$ 79 d4-1,2-Dichlorobenzene	0.90947	0.90329	0.010	-0.67875	20.00000	Averaged
80 1,2-Dichlorobenzene	1.52349	1.44727	0.010	-5.00279	20.00000	Averaged
81 1,2-Dibromo 3-Chloropropane	0.16826	0.15039	0.010	-10.61995	20.00000	Averaged
82 1,2,4-Trichlorobenzene	0.92710	0.86624	0.010	-6.56505	20.00000	Averaged
83 Hexachloro 1,3-Butadiene	0.62441	0.60650	0.010	-2.86930	20.00000	Averaged
84 Naphthalene	1.68157	1.42504	0.010	-15.25534	20.00000	Averaged
85 1,2,3-Trichlorobenzene	0.88636	0.75026	0.010	-15.35517	20.00000	Averaged

Data File: /chem1/finn5.i/02AUG10.b/0500802.d

Date : 02-AUG-2010 17:23

Client ID: VSTD050

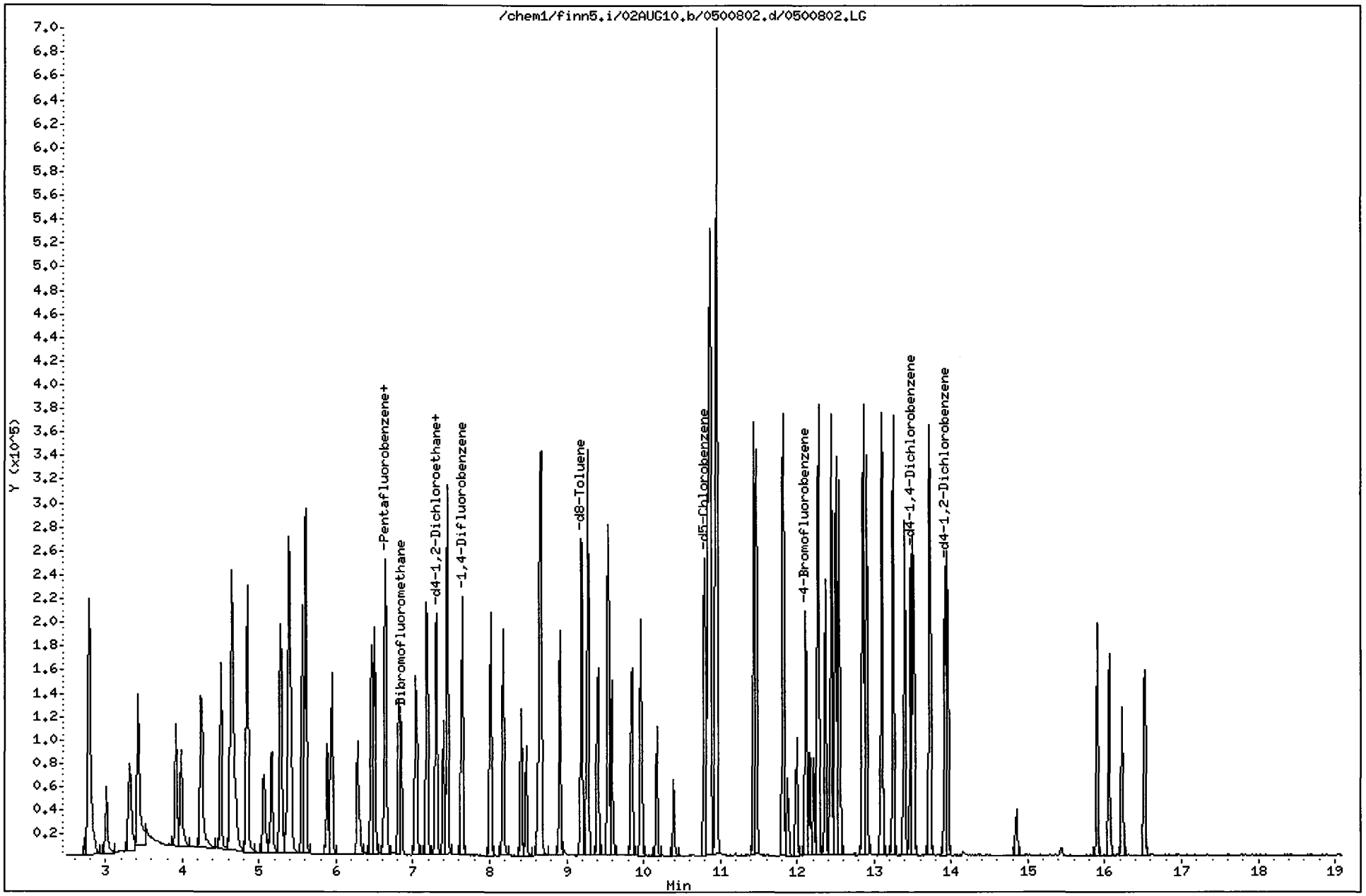
Sample Info: CC0802,5,5,0

Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18



Q-FLAG SUMMARY FOR DATABATCH - /chem1/finn5.i/02AUG10.b

Instrument: finn5.i Date: 02-AUG-2010 Method: s8260b.m

INITIAL CAL: 23-JUL-2010

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 02-AUG-2010

Compound	%D
Chloromethane	-24.7
Methylene Chloride	-24.0

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/finn5.i/02AUG10.b

ARI Job No.: BFB0   Method: bfb8260.m   Instrument: finn5.i   Date: 02-AUG-2010

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1649	BFB0802.d	BFB0802	BFB0802	1	NO MANUAL INTEGRATION
1723	0500802.d	CC0802	VSTD050	1	NO MANUAL INTEGRATION
1824	LCS0802.d	LCS0802	LCS0802	1	NO MANUAL INTEGRATION
1857	LCS0802A.d	LCS0802	LCS0802	1	NO MANUAL INTEGRATION
1950	MB0802.d	MB0802	MB0802	1	NO MANUAL INTEGRATION
0027	RG51A.d	RG51A	PSB12-0-0.	1	NO MANUAL INTEGRATION
0053	RG51B.d	RG51B	PSB12-1.5-	1	NO MANUAL INTEGRATION
0119	RG51C.d	RG51C	PSB12-2-4-	1	NO MANUAL INTEGRATION

Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/LCS0802.d
Lab Smp Id: LCS0802 Client Smp ID: LCS0802
Inj Date : 02-AUG-2010 18:24
Operator : PB Inst ID: finn5.i
Smp Info : LCS0802,5,5,0
Misc Info : 10-18183
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:36 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	3.005	3.015	(0.454)	64317	55.6185	55.618
2 Chloromethane	50	3.306	3.316	(0.499)	133089	42.7758	42.776
3 Vinyl Chloride	62	3.417	3.427	(0.516)	121171	49.2491	49.249
4 Bromomethane	94	3.909	3.919	(0.590)	89041	66.6393	66.639
5 Chloroethane	64	3.980	3.980	(0.601)	81694	50.8444	50.844
6 Trichlorofluoromethane	101	4.241	4.241	(0.640)	127022	53.4174	53.417
7 Acrolein	56	4.623	4.633	(0.698)	70391	237.308	237.31
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.701)	95300	51.1912	51.191
9 Acetone	43	4.683	4.683	(0.707)	127345	255.160	255.16
10 1,1-Dichloroethene	96	4.834	4.844	(0.730)	82111	48.6056	48.606
11 Bromoethane	108	5.055	5.065	(0.763)	62481	49.9438	49.944
12 Iodomethane	142	5.156	5.166	(0.778)	119453	59.8050	59.805
13 Methylene Chloride	84	5.276	5.276	(0.797)	79949	42.0302	42.030
14 Acrylonitrile	53	5.357	5.357	(0.809)	23293	52.8616	52.862(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.815)	132281	50.9192	50.919(Q)
	15 Carbon Disulfide	76	5.377	5.377	(0.812)	278674	53.1880	53.188
	17 Trans-1,2-Dichloroethene	96	5.558	5.558	(0.839)	70078	48.6763	48.676
	18 Vinyl Acetate	43	5.879	5.879	(0.888)	137466	54.5176	54.518
	19 1,1-Dichloroethane	63	5.940	5.940	(0.897)	133017	50.2234	50.223
	20 2-Butanone	43	6.281	6.281	(0.948)	151098	269.065	269.06
	21 2,2-Dichloropropane	77	6.462	6.462	(0.976)	83695	51.6433	51.643
	22 Cis-1,2-Dichloroethene	96	6.492	6.502	(0.980)	62927	49.5922	49.592
*	23 Pentafluorobenzene	168	6.623	6.633	(1.000)	89180	50.0000	
	24 Chloroform	83	6.643	6.643	(1.003)	106102	49.3195	49.319
	26 Bromochloromethane	128	6.804	6.814	(1.027)	29399	48.7997	48.800
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	51222	48.1910	48.191(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.062)	83607	49.9668	49.967
	29 1,1-Dichloropropene	75	7.176	7.176	(0.939)	89078	50.6963	50.696
	30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	74769	48.9343	48.934
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	56334	48.4367	48.437
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	77360	50.1520	50.152
	33 Benzene	78	7.447	7.447	(0.975)	210634	49.5744	49.574
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	129391	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	61304	49.2460	49.246
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	63247	47.2220	47.222
	37 Bromodichloromethane	83	8.402	8.412	(1.100)	72287	50.4804	50.480
	39 Dibromomethane	93	8.472	8.472	(1.109)	33117	49.8106	49.810
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	25980	55.3886	55.388
	41 4-Methyl-2-Pentanone	58	8.653	8.653	(1.133)	84931	248.303	248.30
	42 Cis 1,3-dichloropropene	75	8.904	8.914	(1.166)	82796	52.9579	52.958
$	43 d8-Toluene	98	9.186	9.186	(1.203)	146592	51.5610	51.561
	44 Toluene	92	9.266	9.276	(1.213)	118301	46.9280	46.928
	45 Trans 1,3-Dichloropropene	75	9.397	9.407	(1.230)	67955	51.7104	51.710
	46 2-Hexanone	43	9.537	9.537	(0.884)	207694	237.984	237.98
	47 1,1,2-Trichloroethane	97	9.578	9.588	(1.254)	38247	48.7346	48.734
	48 1,3-Dichloropropane	76	9.839	9.839	(0.912)	73669	49.0270	49.027
	49 Tetrachloroethene	166	9.960	9.960	(0.924)	57837	48.7610	48.761
	50 Chlorodibromomethane	129	10.171	10.171	(0.943)	50472	49.9306	49.931
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	40927	48.6865	48.686
*	52 d5-Chlorobenzene	117	10.784	10.794	(1.000)	106762	50.0000	
	53 Chlorobenzene	112	10.834	10.834	(1.005)	121114	48.3664	48.366
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	224830	53.0936	53.094
	55 1,1,1,2-Tetrachloroethane	131	10.854	10.854	(1.007)	43493	45.3817	45.382
	56 m,p-xylene	106	10.944	10.944	(1.015)	171295	110.674	110.67
	57 o-Xylene	106	11.427	11.437	(1.060)	81584	50.7178	50.718
	58 Styrene	104	11.457	11.467	(1.062)	138246	55.5835	55.584
	59 Isopropyl Benzene	105	11.809	11.819	(0.877)	222975	56.4689	56.469
	60 Bromoform	173	11.869	11.879	(0.881)	31185	49.1201	49.120
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	53341	46.7587	46.759
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	61711	49.3895	49.390
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	11150	49.3368	49.337

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	18518	52.8156	52.816
	66 N-Propyl Benzene	91	12.261	12.271	(0.910)	281168	55.1595	55.159
	67 Bromobenzene	156	12.351	12.361	(0.917)	54748	49.7361	49.736
	68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	187206	58.4053	58.405
	69 2-Chloro Toluene	91	12.492	12.502	(0.928)	181430	54.1690	54.169
	70 4-Chloro Toluene	91	12.542	12.542	(0.931)	176242	54.8954	54.895
	71 T-Butyl Benzene	119	12.844	12.854	(0.954)	157460	57.4221	57.422
	72 1,2,4-Trimethylbenzene	105	12.894	12.904	(0.957)	187021	59.2702	59.270
	73 S-Butyl Benzene	105	13.095	13.095	(0.972)	250789	55.5913	55.591
	74 4-Isopropyl Toluene	119	13.236	13.246	(0.983)	189347	61.1690	61.169
	75 1,3-Dichlorobenzene	146	13.387	13.397	(0.994)	103586	55.0807	55.081
*	76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	58659	50.0000	
	77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	101864	54.1289	54.129
	78 N-Butyl Benzene	91	13.718	13.718	(1.019)	210431	62.9532	62.953
$	79 d4-1,2-Dichlorobenzene	152	13.909	13.919	(1.033)	51750	48.5019	48.502
	80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	91856	51.3929	51.393
	81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	9656	48.9170	48.917
	82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	59028	54.2709	54.271
	83 Hexachloro 1,3-Butadiene	225	16.050	16.050	(1.192)	39158	53.4545	53.454
	84 Naphthalene	128	16.221	16.221	(1.204)	92456	46.8659	46.866
	85 1,2,3-Trichlorobenzene	180	16.512	16.512	(1.226)	49725	47.8191	47.819

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: LCS0802.d
Lab Smp Id: LCS0802
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: LCS0802
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	89180	-31.98
34 1,4-Difluorobenze	191559	95780	383118	129391	-32.45
52 d5-Chlorobenzene	161199	80600	322398	106762	-33.77
76 d4-1,4-Dichlorobe	88279	44140	176558	58659	-33.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.62	-0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.79	10.29	11.29	10.78	-0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 02AUG10
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: LCS0802 Client Smp ID: LCS0802
Level: LOW Operator: PB
Data Type: MS DATA SampleType: LCS
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	55.618	111.24	53-148
2	Chloromethane	50.000	42.776	85.55	64-125
3	Vinyl Chloride	50.000	49.249	98.50	63-137
4	Bromomethane	50.000	66.639	133.28	57-136
5	Chloroethane	50.000	50.844	101.69	64-131
6	Trichlorofluoromet	50.000	53.417	106.83	69-132
7	Acrolein	250.00	237.31	94.92	54-137
8	112Trichloro122Tri	50.000	51.191	102.38	74-130
9	Acetone	250.00	255.16	102.06	60-131
10	1,1-Dichloroethene	50.000	48.606	97.21	75-126
11	Bromoethane	50.000	49.944	99.89	76-126
12	Iodomethane	50.000	59.805	119.61	65-139
13	Methylene Chloride	50.000	42.030	84.06	70-123
15	Carbon Disulfide	50.000	53.188	106.38	71-129
14	Acrylonitrile	50.000	52.862	105.72	67-125
16	Methyl tert-Butyl	50.000	50.919	101.84	70-120
17	Trans-1,2-Dichloro	50.000	48.676	97.35	80-120
18	Vinyl Acetate	50.000	54.518	109.04	60-136
19	1,1-Dichloroethane	50.000	50.223	100.45	80-120
20	2-Butanone	250.00	269.06	107.63	70-120
21	2,2-Dichloropropan	50.000	51.643	103.29	74-123
22	Cis-1,2-Dichloroet	50.000	49.592	99.18	80-120
24	Chloroform	50.000	49.319	98.64	80-120
26	Bromochloromethane	50.000	48.800	97.60	80-120
27	1,1,1-Trichloroeth	50.000	49.967	99.93	77-121
29	1,1-Dichloropropen	50.000	50.696	101.39	80-120
30	Carbon Tetrachlori	50.000	48.934	97.87	77-122
32	1,2-Dichloroethane	50.000	50.152	100.30	76-120
33	Benzene	50.000	49.574	99.15	80-120
35	Trichloroethene	50.000	49.246	98.49	80-120
36	1,2-Dichloropropan	50.000	47.222	94.44	80-120
37	Bromodichlorometha	50.000	50.480	100.96	77-121
39	Dibromomethane	50.000	49.810	99.62	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	55.388	110.78	10-191
41 4-Methyl-2-Pentano	250.00	248.30	99.32	67-120
42 Cis 1,3-dichloropr	50.000	52.958	105.92	74-120
44 Toluene	50.000	46.928	93.86	80-120
45 Trans 1,3-Dichloro	50.000	51.710	103.42	65-120
46 2-Hexanone	250.00	237.98	95.19	65-130
47 1,1,2-Trichloroeth	50.000	48.734	97.47	80-120
48 1,3-Dichloropropan	50.000	49.027	98.05	80-120
49 Tetrachloroethene	50.000	48.761	97.52	80-121
50 Chlorodibromometha	50.000	49.931	99.86	64-120
51 1,2-Dibromoethane	50.000	48.686	97.37	75-120
53 Chlorobenzene	50.000	48.366	96.73	80-120
55 1,1,1,2-Tetrachlor	50.000	45.382	90.76	69-121
54 Ethyl Benzene	50.000	53.094	106.19	80-127
56 m,p-xylene	100.00	110.67	110.67	80-125
57 o-Xylene	50.000	50.718	101.44	78-120
58 Styrene	50.000	55.584	111.17	80-123
59 Isopropyl Benzene	50.000	56.469	112.94	80-127
60 Bromoform	50.000	49.120	98.24	60-120
61 1,1,2,2-Tetrachlor	50.000	46.759	93.52	74-120
63 1,2,3-Trichloropro	50.000	49.337	98.67	72-121
65 Trans-1,4-Dichloro	50.000	52.816	105.63	65-126
66 N-Propyl Benzene	50.000	55.159	110.32	80-132
67 Bromobenzene	50.000	49.736	99.47	80-120
68 1,3,5-Trimethyl Be	50.000	58.405	116.81	80-125
69 2-Chloro Toluene	50.000	54.169	108.34	80-125
70 4-Chloro Toluene	50.000	54.895	109.79	80-127
71 T-Butyl Benzene	50.000	57.422	114.84	87-122
72 1,2,4-Trimethylben	50.000	59.270	118.54	80-126
73 S-Butyl Benzene	50.000	55.591	111.18	80-134
74 4-Isopropyl Toluen	50.000	61.169	122.34	80-131
75 1,3-Dichlorobenzen	50.000	55.081	110.16	80-120
77 1,4-Dichlorobenzen	50.000	54.129	108.26	80-120
78 N-Butyl Benzene	50.000	62.953	125.91	80-138
80 1,2-Dichlorobenzen	50.000	51.393	102.79	80-120
81 1,2-Dibromo 3-Chlo	50.000	48.917	97.83	59-120
82 1,2,4-Trichloroben	50.000	54.271	108.54	78-130
83 Hexachloro 1,3-But	50.000	53.454	106.91	76-129
84 Naphthalene	50.000	46.866	93.73	66-120
85 1,2,3-Trichloroben	50.000	47.819	95.64	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	48.191	96.38	30-160

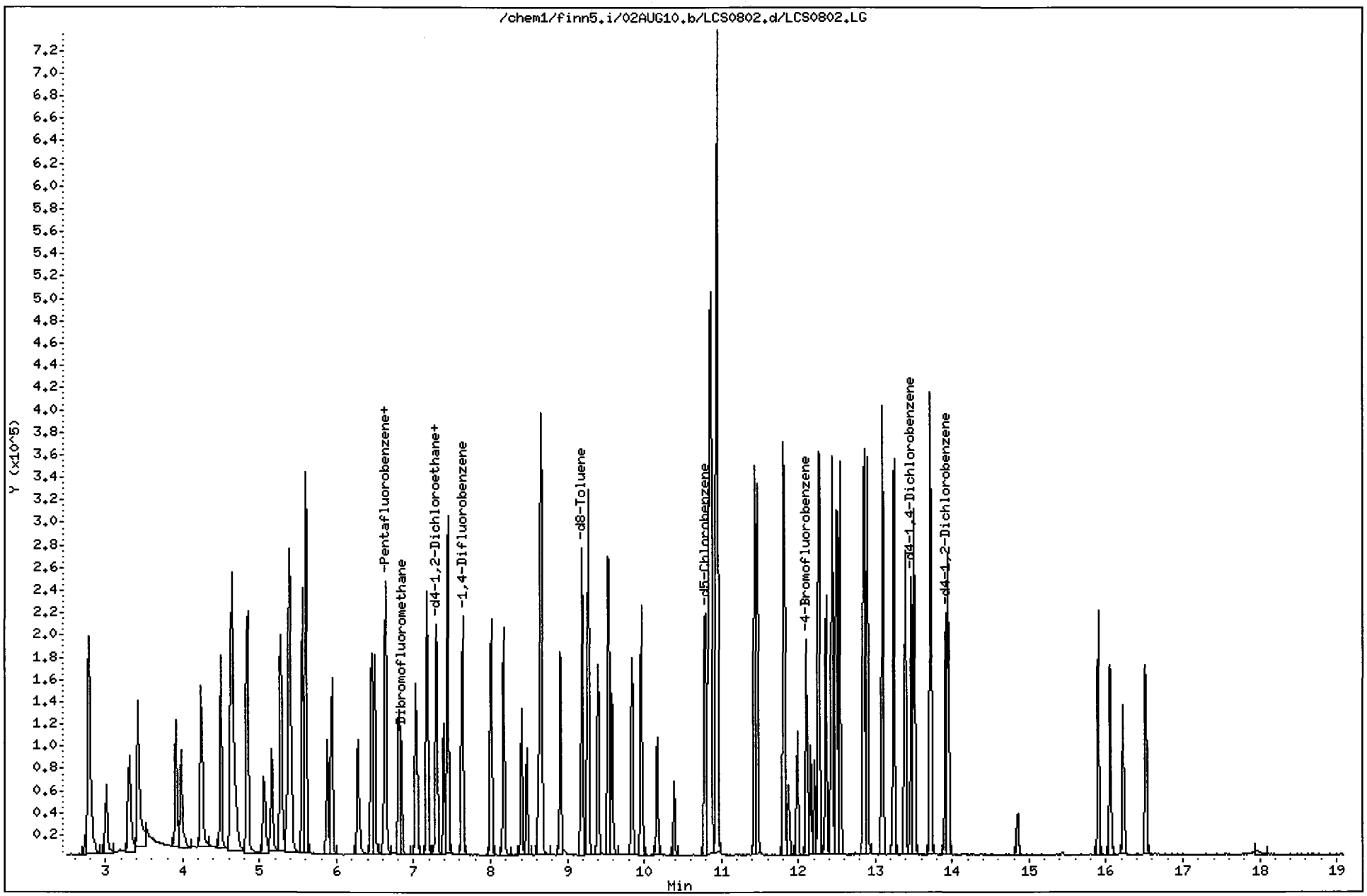
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	50.000	48.437	96.87	75-152
$ 43 d8-Toluene	50.000	51.561	103.12	82-115
$ 62 4-Bromofluorobenze	50.000	49.390	98.78	64-120
$ 79 d4-1,2-Dichloroben	50.000	48.502	97.00	80-120

Data File: /chem1/finn5.i/02AUG10.b/LCS0802.d
Date : 02-AUG-2010 18:24
Client ID: LCS0802
Sample Info: LCS0802,5,5,0

Instrument: finn5.i

Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/LCS0802A.d
Lab Smp Id: LCS0802 Client Smp ID: LCS0802
Inj Date : 02-AUG-2010 18:57
Operator : PB Inst ID: finn5.i
Smp Info : LCS0802,5,5,0
Misc Info : 10-18183
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:36 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.455)	62523	49.6745	49.674
2 Chloromethane	50	3.316	3.316	(0.500)	135166	39.9139	39.914
3 Vinyl Chloride	62	3.427	3.427	(0.517)	124222	46.3872	46.387
4 Bromomethane	94	3.919	3.919	(0.591)	91891	63.1850	63.185
5 Chloroethane	64	3.990	3.980	(0.602)	83530	47.7635	47.763
6 Trichlorofluoromethane	101	4.251	4.241	(0.641)	132586	51.2273	51.227
7 Acrolein	56	4.633	4.633	(0.698)	68067	210.830	210.83
8 112Trichloro122Trifluoroethane	101	4.653	4.643	(0.702)	96989	47.8658	47.866
9 Acetone	43	4.693	4.683	(0.708)	124842	229.822	229.82
10 1,1-Dichloroethene	96	4.854	4.844	(0.732)	86631	47.1149	47.115
11 Bromoethane	108	5.065	5.065	(0.764)	64290	47.2147	47.215
12 Iodomethane	142	5.166	5.166	(0.779)	121480	55.8786	55.878
13 Methylene Chloride	84	5.286	5.276	(0.797)	82732	39.9598	39.960
14 Acrylonitrile	53	5.367	5.357	(0.809)	22714	47.3597	47.360(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
16	Methyl tert-Butyl Ether	73	5.407	5.397	(0.815)	135627	47.9656	47.966 (Q)
15	Carbon Disulfide	76	5.387	5.377	(0.812)	286931	50.3148	50.315
17	Trans-1,2-Dichloroethene	96	5.568	5.558	(0.839)	71908	45.8895	45.889
18	Vinyl Acetate	43	5.889	5.879	(0.888)	138586	50.4964	50.496
19	1,1-Dichloroethane	63	5.950	5.940	(0.897)	138658	48.0999	48.100
20	2-Butanone	43	6.291	6.281	(0.948)	147291	240.977	240.98
21	2,2-Dichloropropane	77	6.472	6.462	(0.976)	86643	49.1189	49.119
22	Cis-1,2-Dichloroethene	96	6.512	6.502	(0.982)	65736	47.5971	47.597
* 23	Pentafluorobenzene	168	6.633	6.633	(1.000)	97066	50.0000	
24	Chloroform	83	6.653	6.643	(1.003)	110818	47.3266	47.327
26	Bromochloromethane	128	6.814	6.814	(1.027)	30684	46.7947	46.795
$ 25	Dibromofluoromethane	111	6.854	6.844	(1.033)	58105	50.2253	50.225 (Q)
27	1,1,1-Trichloroethane	97	7.045	7.035	(1.062)	86712	47.6122	47.612
29	1,1-Dichloropropene	75	7.186	7.176	(0.940)	93042	48.8597	48.860
30	Carbon Tetrachloride	117	7.306	7.296	(0.955)	77713	46.9301	46.930
$ 31	d4-1,2-Dichloroethane	65	7.316	7.306	(1.103)	65919	52.0732	52.073
32	1,2-Dichloroethane	62	7.407	7.397	(0.968)	78944	47.2234	47.223
33	Benzene	78	7.457	7.447	(0.975)	220884	47.9689	47.969
* 34	1,4-Difluorobenzene	114	7.648	7.638	(1.000)	140229	50.0000	
35	Trichloroethene	95	8.020	8.010	(1.049)	63670	47.1936	47.194
36	1,2-Dichloropropane	63	8.181	8.171	(1.070)	65802	45.3325	45.332
37	Bromodichloromethane	83	8.412	8.412	(1.100)	74113	47.7555	47.755
39	Dibromomethane	93	8.482	8.472	(1.109)	34702	48.1605	48.160
40	2-Chloroethyl Vinyl Ether	63	8.633	8.623	(1.129)	26381	51.8966	51.896
41	4-Methyl-2-Pentanone	58	8.663	8.653	(1.133)	85363	230.278	230.28
42	Cis 1,3-dichloropropene	75	8.914	8.914	(1.166)	85420	50.4135	50.414
$ 43	d8-Toluene	98	9.196	9.186	(1.202)	160490	52.0865	52.086
44	Toluene	92	9.276	9.276	(1.213)	125994	46.1169	46.117
45	Trans 1,3-Dichloropropene	75	9.407	9.407	(1.230)	70124	49.2368	49.237
46	2-Hexanone	43	9.537	9.537	(0.884)	207025	213.380	213.38
47	1,1,2-Trichloroethane	97	9.588	9.588	(1.254)	39845	46.8468	46.847
48	1,3-Dichloropropane	76	9.849	9.839	(0.912)	76370	45.7172	45.717
49	Tetrachloroethene	166	9.970	9.960	(0.924)	60354	45.7698	45.770
50	Chlorodibromomethane	129	10.171	10.171	(0.942)	51085	45.4586	45.458
51	1,2-Dibromoethane	107	10.402	10.392	(1.360)	41679	45.7491	45.749
* 52	d5-Chlorobenzene	117	10.794	10.794	(1.000)	118689	50.0000	
53	Chlorobenzene	112	10.834	10.834	(1.004)	127143	45.6718	45.672
54	Ethyl Benzene	91	10.874	10.864	(1.007)	238097	50.5764	50.576
55	1,1,1,2-Tetrachloroethane	131	10.864	10.854	(1.007)	45601	42.7998	42.800
56	m,p-xylene	106	10.954	10.944	(1.015)	180447	104.871	104.87
57	o-Xylene	106	11.437	11.437	(1.060)	86487	48.3630	48.363
58	Styrene	104	11.467	11.467	(1.062)	141907	51.3220	51.322
59	Isopropyl Benzene	105	11.819	11.819	(0.877)	232015	53.5643	53.564
60	Bromoform	173	11.879	11.879	(0.881)	31696	45.5118	45.512
61	1,1,2,2-Tetrachloroethane	83	12.000	11.990	(0.890)	52956	42.3178	42.318
$ 62	4-Bromofluorobenzene	95	12.120	12.110	(1.123)	68695	49.4543	49.454
63	1,2,3-Trichloropropane	110	12.171	12.160	(0.903)	10967	44.2375	44.237 (Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.221	12.211	(0.907)	18472	48.0273	48.027
	66 N-Propyl Benzene	91	12.271	12.271	(0.910)	290737	51.9949	51.995
	67 Bromobenzene	156	12.361	12.361	(0.917)	57255	47.4158	47.416
	68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.923)	195230	55.5246	55.525
	69 2-Chloro Toluene	91	12.502	12.502	(0.928)	193478	52.6598	52.660
	70 4-Chloro Toluene	91	12.552	12.542	(0.931)	180330	51.2037	51.204
	71 T-Butyl Benzene	119	12.854	12.854	(0.954)	167883	55.8113	55.811
	72 1,2,4-Trimethylbenzene	105	12.904	12.904	(0.957)	195891	56.5935	56.593
	73 S-Butyl Benzene	105	13.105	13.095	(0.972)	261531	52.8479	52.848
	74 4-Isopropyl Toluene	119	13.246	13.246	(0.983)	199760	58.8285	58.828
	75 1,3-Dichlorobenzene	146	13.397	13.397	(0.994)	109729	53.1895	53.190
*	76 d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	64347	50.0000	
	77 1,4-Dichlorobenzene	146	13.517	13.507	(1.003)	106571	51.6243	51.624
	78 N-Butyl Benzene	91	13.728	13.718	(1.019)	215753	58.8398	58.840
$	79 d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.033)	59233	50.6080	50.608
	80 1,2-Dichlorobenzene	146	13.959	13.949	(1.036)	95772	48.8473	48.847
	81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.102)	9637	44.5052	44.505
	82 1,2,4-Trichlorobenzene	180	15.909	15.899	(1.180)	61537	51.5765	51.576
	83 Hexachloro 1,3-Butadiene	225	16.060	16.050	(1.192)	40688	50.6334	50.633
	84 Naphthalene	128	16.231	16.221	(1.204)	95374	44.0715	44.071
	85 1,2,3-Trichlorobenzene	180	16.522	16.512	(1.226)	51651	45.2805	45.280

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: LCS0802A.d
Lab Smp Id: LCS0802
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: LCS0802
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	97066	-25.97
34 1,4-Difluorobenze	191559	95780	383118	140229	-26.80
52 d5-Chlorobenzene	161199	80600	322398	118689	-26.37
76 d4-1,4-Dichlorobe	88279	44140	176558	64347	-27.11

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.79	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 02AUG10
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: LCS0802 Client Smp ID: LCS0802
Level: LOW Operator: PB
Data Type: MS DATA SampleType: LCSD
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	49.674	99.35	53-148
2	Chloromethane	50.000	39.914	79.83	64-125
3	Vinyl Chloride	50.000	46.387	92.77	63-137
4	Bromomethane	50.000	63.185	126.37	57-136
5	Chloroethane	50.000	47.763	95.53	64-131
6	Trichlorofluoromet	50.000	51.227	102.45	69-132
7	Acrolein	250.00	210.83	84.33	54-137
8	112Trichloro122Tri	50.000	47.866	95.73	74-130
9	Acetone	250.00	229.82	91.93	60-131
10	1,1-Dichloroethene	50.000	47.115	94.23	75-126
11	Bromoethane	50.000	47.215	94.43	76-126
12	Iodomethane	50.000	55.878	111.76	65-139
13	Methylene Chloride	50.000	39.960	79.92	70-123
15	Carbon Disulfide	50.000	50.315	100.63	71-129
14	Acrylonitrile	50.000	47.360	94.72	67-125
16	Methyl tert-Butyl	50.000	47.966	95.93	70-120
17	Trans-1,2-Dichloro	50.000	45.889	91.78	80-120
18	Vinyl Acetate	50.000	50.496	100.99	60-136
19	1,1-Dichloroethane	50.000	48.100	96.20	80-120
20	2-Butanone	250.00	240.98	96.39	70-120
21	2,2-Dichloropropan	50.000	49.119	98.24	74-123
22	Cis-1,2-Dichloroet	50.000	47.597	95.19	80-120
24	Chloroform	50.000	47.327	94.65	80-120
26	Bromochloromethane	50.000	46.795	93.59	80-120
27	1,1,1-Trichloroeth	50.000	47.612	95.22	77-121
29	1,1-Dichloropropen	50.000	48.860	97.72	80-120
30	Carbon Tetrachlori	50.000	46.930	93.86	77-122
32	1,2-Dichloroethane	50.000	47.223	94.45	76-120
33	Benzene	50.000	47.969	95.94	80-120
35	Trichloroethene	50.000	47.194	94.39	80-120
36	1,2-Dichloropropan	50.000	45.332	90.67	80-120
37	Bromodichlorometha	50.000	47.755	95.51	77-121
39	Dibromomethane	50.000	48.160	96.32	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	51.896	103.79	10-191
41 4-Methyl-2-Pentano	250.00	230.28	92.11	67-120
42 Cis 1,3-dichloropr	50.000	50.414	100.83	74-120
44 Toluene	50.000	46.117	92.23	80-120
45 Trans 1,3-Dichloro	50.000	49.237	98.47	65-120
46 2-Hexanone	250.00	213.38	85.35	65-130
47 1,1,2-Trichloroeth	50.000	46.847	93.69	80-120
48 1,3-Dichloropropan	50.000	45.717	91.43	80-120
49 Tetrachloroethene	50.000	45.770	91.54	80-121
50 Chlorodibromometha	50.000	45.458	90.92	64-120
51 1,2-Dibromoethane	50.000	45.749	91.50	75-120
53 Chlorobenzene	50.000	45.672	91.34	80-120
55 1,1,1,2-Tetrachlor	50.000	42.800	85.60	69-121
54 Ethyl Benzene	50.000	50.576	101.15	80-127
56 m,p-xylene	100.00	104.87	104.87	80-125
57 o-Xylene	50.000	48.363	96.73	78-120
58 Styrene	50.000	51.322	102.64	80-123
59 Isopropyl Benzene	50.000	53.564	107.13	80-127
60 Bromoform	50.000	45.512	91.02	60-120
61 1,1,2,2-Tetrachlor	50.000	42.318	84.64	74-120
63 1,2,3-Trichloropro	50.000	44.237	88.47	72-121
65 Trans-1,4-Dichloro	50.000	48.027	96.05	65-126
66 N-Propyl Benzene	50.000	51.995	103.99	80-132
67 Bromobenzene	50.000	47.416	94.83	80-120
68 1,3,5-Trimethyl Be	50.000	55.525	111.05	80-125
69 2-Chloro Toluene	50.000	52.660	105.32	80-125
70 4-Chloro Toluene	50.000	51.204	102.41	80-127
71 T-Butyl Benzene	50.000	55.811	111.62	87-122
72 1,2,4-Trimethylben	50.000	56.593	113.19	80-126
73 S-Butyl Benzene	50.000	52.848	105.70	80-134
74 4-Isopropyl Toluen	50.000	58.828	117.66	80-131
75 1,3-Dichlorobenzen	50.000	53.190	106.38	80-120
77 1,4-Dichlorobenzen	50.000	51.624	103.25	80-120
78 N-Butyl Benzene	50.000	58.840	117.68	80-138
80 1,2-Dichlorobenzen	50.000	48.847	97.69	80-120
81 1,2-Dibromo 3-Chlo	50.000	44.505	89.01	59-120
82 1,2,4-Trichloroben	50.000	51.576	103.15	78-130
83 Hexachloro 1,3-But	50.000	50.633	101.27	76-129
84 Naphthalene	50.000	44.071	88.14	66-120
85 1,2,3-Trichloroben	50.000	45.280	90.56	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	50.225	100.45	30-160

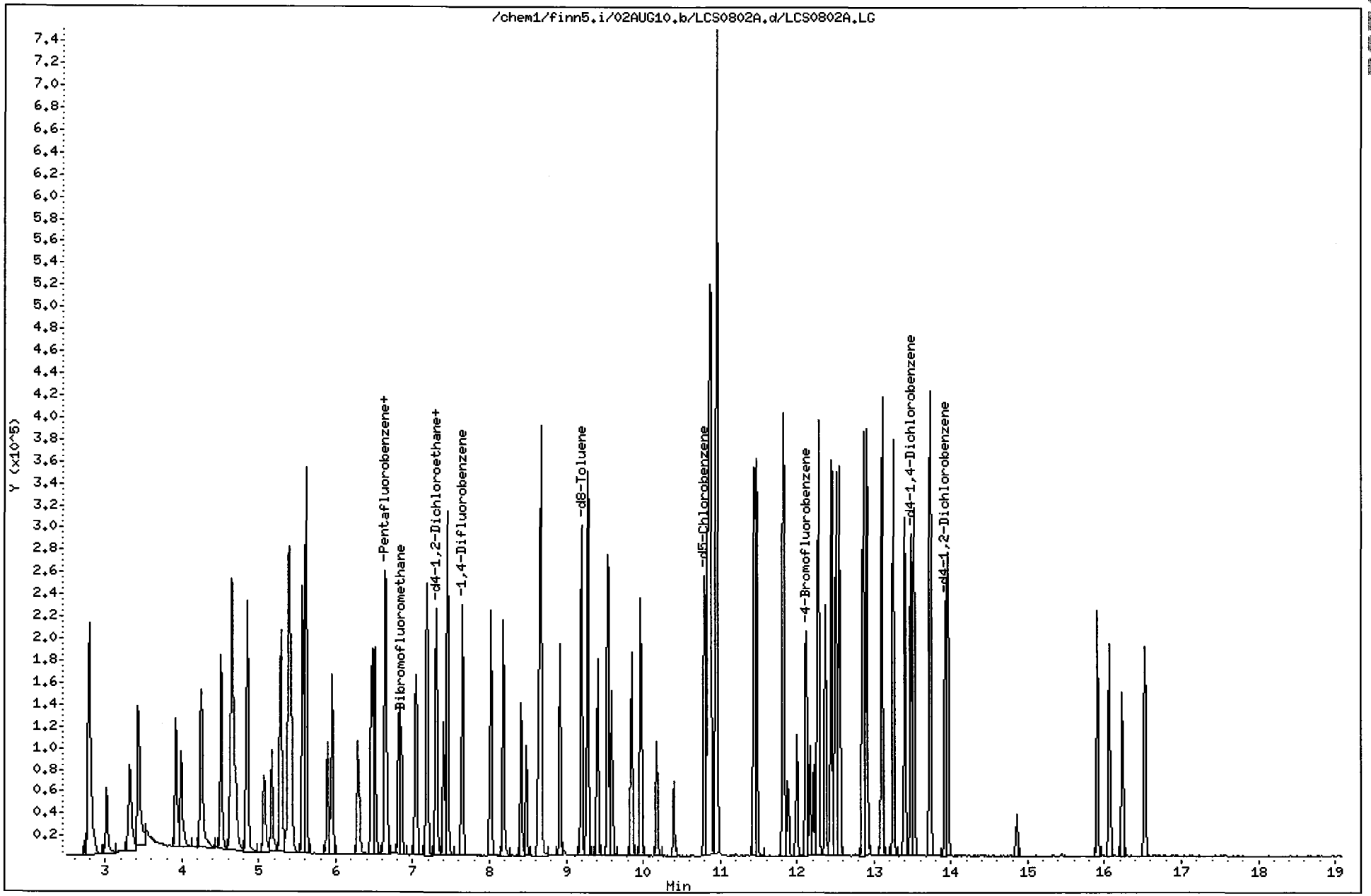
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	50.000	52.073	104.15	75-152
$ 43 d8-Toluene	50.000	52.086	104.17	82-115
$ 62 4-Bromofluorobenze	50.000	49.454	98.91	64-120
$ 79 d4-1,2-Dichloroben	50.000	50.608	101.22	80-120

Data File: /chem1/finn5.i/02AUG10.b/LCS0802A.d
Date : 02-AUG-2010 18:57
Client ID: LCS0802
Sample Info: LCS0802,5,5,0

Instrument: finn5.i

Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/MB0802.d
Lab Smp Id: MB0802 Client Smp ID: MB0802
Inj Date : 02-AUG-2010 19:50
Operator : PB Inst ID: finn5.i
Smp Info : MB0802,5,5,0
Misc Info : 10-18183
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:36 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	Compound Not Detected.					
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	Compound Not Detected.					
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.633	6.633	(1.000)	91877	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.854	6.844	(1.033)	54882	50.1187	50.119(Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.316	7.306	(1.103)	61885	51.6476	51.648
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	Compound Not Detected.					
*	34 1,4-Difluorobenzene	114	7.648	7.638	(1.000)	128423	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.196	9.186	(1.202)	142636	50.5477	50.548
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	108723	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.120	12.110	(1.123)	59447	46.7194	46.719
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
66	N-Propyl Benzene	91	Compound Not Detected.					
67	Bromobenzene	156	Compound Not Detected.					
68	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
69	2-Chloro Toluene	91	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	53818	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.033)	50044	51.1220	51.122
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	Naphthalene	128	Compound Not Detected.					
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: MB0802.d
Lab Smp Id: MB0802
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: MB0802
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	91877	-29.93
34 1,4-Difluorobenze	191559	95780	383118	128423	-32.96
52 d5-Chlorobenzene	161199	80600	322398	108723	-32.55
76 d4-1,4-Dichlorobe	88279	44140	176558	53818	-39.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.79	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 02AUG10
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: MB0802 Client Smp ID: MB0802
Level: LOW Operator: PB
Data Type: MS DATA SampleType: BLANK
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

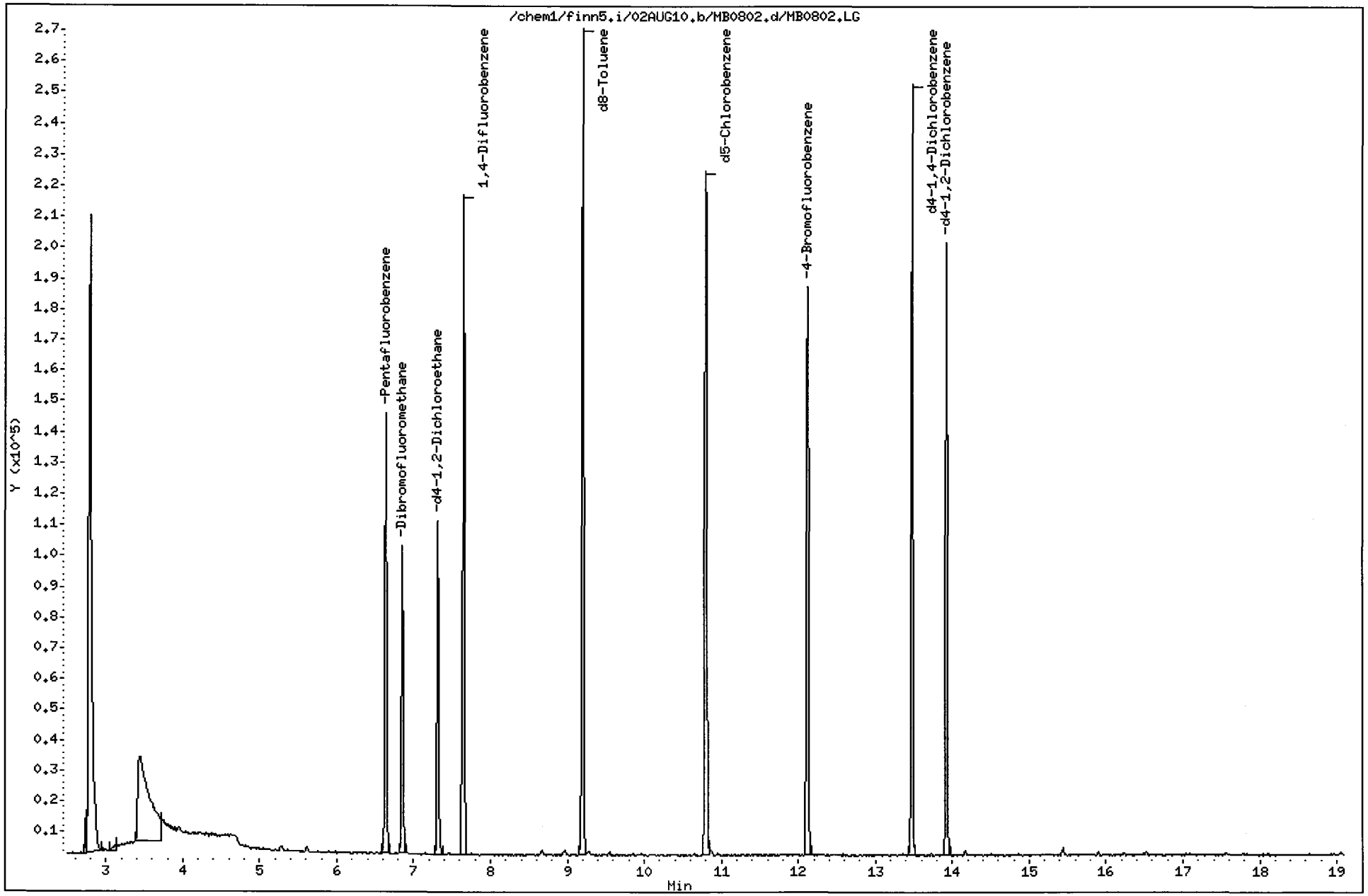
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	50.119	100.24	30-160
$ 31 d4-1,2-Dichloroeth	50.000	51.648	103.30	75-152
$ 43 d8-Toluene	50.000	50.548	101.10	82-115
$ 62 4-Bromofluorobenze	50.000	46.719	93.44	64-120
$ 79 d4-1,2-Dichloroben	50.000	51.122	102.24	80-120

Data File: /chem1/finn5.i/02AUG10.b/MB0802.d
Date : 02-AUG-2010 19:50
Client ID: MB0802
Sample Info: MB0802,5,5,0

Instrument: finn5.i

Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/RG51A.d
Lab Smp Id: RG51A Client Smp ID: PSB12-0-0.5-072810
Inj Date : 03-AUG-2010 00:27
Operator : PB Inst ID: finn5.i
Smp Info : RG51A,5,9.274,0
Misc Info : 10-18183
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:36 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	9.27400	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	4.683	4.683	(0.706)	44638	82.8392	44.662
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	5.377	5.377	(0.811)	3137	0.55454	0.2990(Q)
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	6.291	6.281	(0.948)	2655	4.37888	2.361
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.633	6.633	(1.000)	96287	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.844	6.844	(1.032)	64305	56.0343	30.210(Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.316	7.306	(1.103)	77941	62.0682	33.464
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	Compound Not Detected.					
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	141895	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.196	9.186	(1.204)	161702	51.8637	27.962
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	121920	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	67553	47.3433	25.525
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
66	N-Propyl Benzene	91	Compound Not Detected.					
67	Bromobenzene	156	Compound Not Detected.					
68	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
69	2-Chloro Toluene	91	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	58871	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.034)	54682	51.0654	27.531
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	Naphthalene	128	Compound Not Detected.					
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: RG51A.d
Lab Smp Id: RG51A
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: PSB12-0-0.5-072810
Level: LOW
Sample Type: Soil

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	96287	-26.56
34 1,4-Difluorobenze	191559	95780	383118	141895	-25.93
52 d5-Chlorobenzene	161199	80600	322398	121920	-24.37
76 d4-1,4-Dichlorobe	88279	44140	176558	58871	-33.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.79	10.29	11.29	10.79	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider
Client SDG: RG51
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: RG51A
Client Smp ID: PSB12-0-0.5-072810
Level: LOW
Operator: PB
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18183

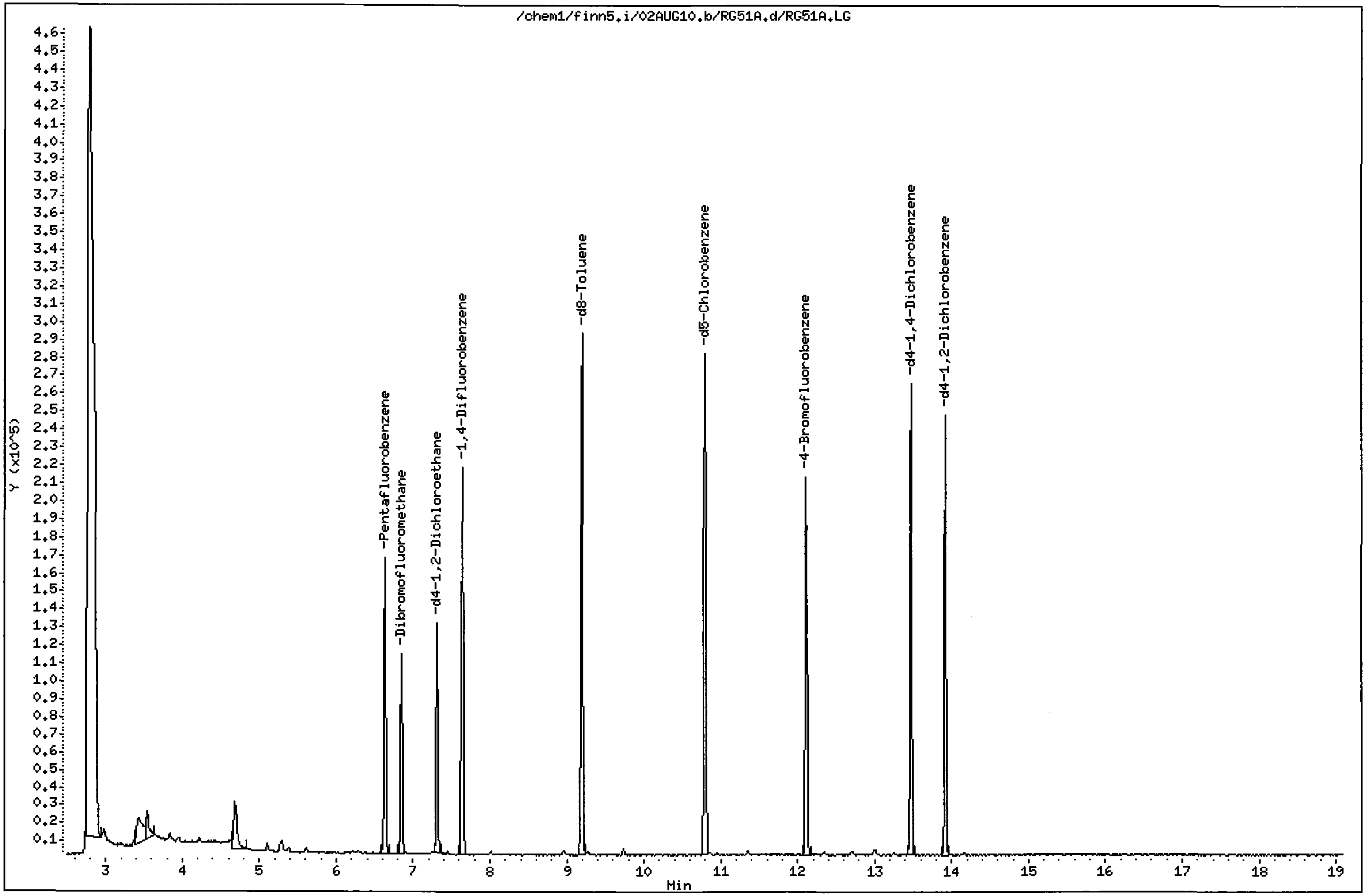
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	56.034	112.07	30-160
$ 31 d4-1,2-Dichloroeth	50.000	62.068	124.14	75-152
$ 43 d8-Toluene	50.000	51.864	103.73	82-115
$ 62 4-Bromofluorobenze	50.000	47.343	94.69	64-120
$ 79 d4-1,2-Dichloroben	50.000	51.065	102.13	80-120

Data File: /chem1/finn5.i/02AUG10.b/RG51A.d
Date : 03-AUG-2010 00:27
Client ID: PSB12-0-0.5-072810
Sample Info: RG51A,5,9.274,0

Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB
Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/RG51B.d
Lab Smp Id: RG51B Client Smp ID: PSB12-1.5-2.0-07281
Inj Date : 03-AUG-2010 00:53
Operator : PB Inst ID: finn5.i
Smp Info : RG51B,5,7.789,0
Misc Info : 10-18184
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:36 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	7.78900	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	4.683	4.683	(0.707)	57269	121.108	77.743
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	6.281	6.281	(0.948)	2726	5.12325	3.289
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.623	6.633	(1.000)	84498	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	57722	57.3154	36.792(Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.306	7.306	(1.103)	69922	63.4510	40.731
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	7.447	7.447	(0.975)	1761	0.42744	0.2744
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	125463	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.186	9.186	(1.203)	145408	52.7458	33.859
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.784	10.794	(1.000)	104826	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.123)	54364	44.3130	28.446
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	66 N-Propyl Benzene	91	Compound Not Detected.					
	67 Bromobenzene	156	Compound Not Detected.					
	68 1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
	69 2-Chloro Toluene	91	Compound Not Detected.					
	70 4-Chloro Toluene	91	Compound Not Detected.					
	71 T-Butyl Benzene	119	Compound Not Detected.					
	72 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	73 S-Butyl Benzene	105	Compound Not Detected.					
	74 4-Isopropyl Toluene	119	Compound Not Detected.					
	75 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	43188	50.0000	
	77 1,4-Dichlorobenzene	146	Compound Not Detected.					
	78 N-Butyl Benzene	91	Compound Not Detected.					
$	79 d4-1,2-Dichlorobenzene	152	13.909	13.919	(1.033)	41082	52.2964	33.571
	80 1,2-Dichlorobenzene	146	Compound Not Detected.					
	81 1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
	82 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	83 Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
	84 Naphthalene	128	Compound Not Detected.					
	85 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: RG51B.d
Lab Smp Id: RG51B
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18184

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: PSB12-1.5-2.0-07281
Level: LOW
Sample Type: Soil

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
23 Pentafluorobenzen	131115	65558	262230	84498	-35.55	
34 1,4-Difluorobenze	191559	95780	383118	125463	-34.50	
52 d5-Chlorobenzene	161199	80600	322398	104826	-34.97	
76 d4-1,4-Dichlorobe	88279	44140	176558	43188	-51.08	<- ulq

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.62	-0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.64	0.00
52 d5-Chlorobenzene	10.79	10.29	11.29	10.78	-0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider
Sample Matrix: SOLID
Lab Smp Id: RG51B
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18184

Client SDG: RG51
Fraction: VOA
Client Smp ID: PSB12-1.5-2.0-07281
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	57.315	114.63	30-160
$ 31 d4-1,2-Dichloroeth	50.000	63.451	126.90	75-152
$ 43 d8-Toluene	50.000	52.746	105.49	82-115
$ 62 4-Bromofluorobenze	50.000	44.313	88.63	64-120
$ 79 d4-1,2-Dichloroben	50.000	52.296	104.59	80-120

Data File: /chem1/finn5.i/02AUG10.b/RG51B.d

Date : 03-AUG-2010 00:53

Client ID: PSB12-1.5-2.0-07281

Sample Info: RG51B,5,7.789,0

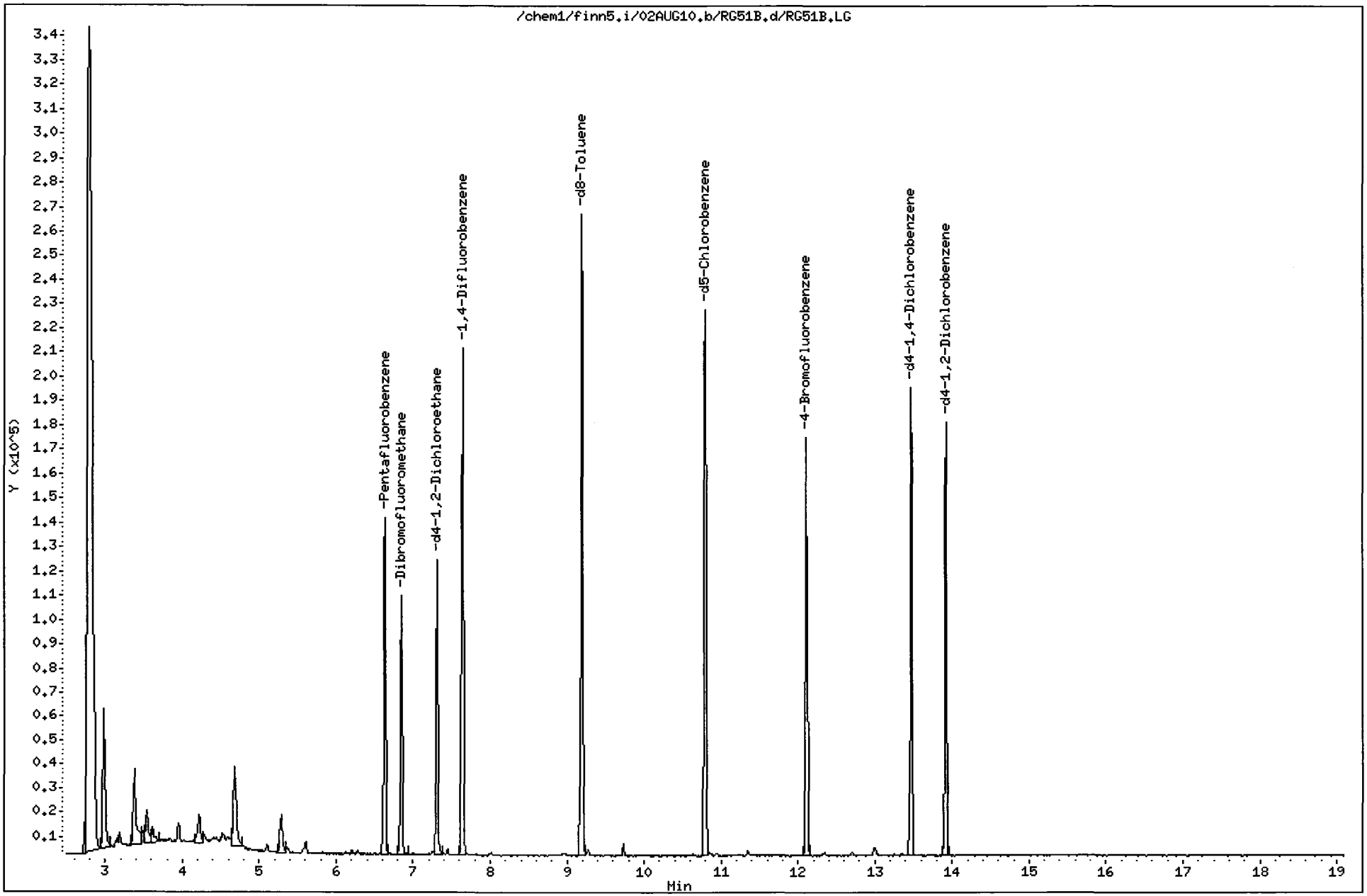
Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18

RG51 : 66367



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/02AUG10.b/RG51C.d
Lab Smp Id: RG51C Client Smp ID: PSB12-2-4-072810
Inj Date : 03-AUG-2010 01:19
Operator : PB Inst ID: finn5.i
Smp Info : RG51C,5,10.257,0
Misc Info : 10-18185
Comment :
Method : /chem1/finn5.i/02AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:36 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	10.25700	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	4.673	4.683	(0.707)	103006	218.683	106.60
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	6.271	6.281	(0.948)	10228	19.2979	9.407
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.613	6.633	(1.000)	84168	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.834	6.844	(1.033)	56125	55.9482	27.273(Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.296	7.306	(1.103)	67358	61.3640	29.913
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	7.437	7.447	(0.975)	1665	0.41930	0.2044
*	34 1,4-Difluorobenzene	114	7.628	7.638	(1.000)	120928	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.176	9.186	(1.203)	137742	51.8388	25.270
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.774	10.794	(1.000)	92903	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.100	12.110	(1.123)	46178	42.4712	20.704
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
66	N-Propyl Benzene	91	Compound Not Detected.					
67	Bromobenzene	156	Compound Not Detected.					
68	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
69	2-Chloro Toluene	91	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	13.457	13.467	(1.000)	36001	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	13.899	13.919	(1.033)	31528	48.1466	23.470
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	Naphthalene	128	Compound Not Detected.					
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: RG51C.d
Lab Smp Id: RG51C
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18185

Calibration Date: 02-AUG-2010
Calibration Time: 17:23
Client Smp ID: PSB12-2-4-072810
Level: LOW
Sample Type: Soil

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF	
23 Pentafluorobenzen	131115	65558	262230	84168	-35.81	
34 1,4-Difluorobenze	191559	95780	383118	120928	-36.87	
52 d5-Chlorobenzene	161199	80600	322398	92903	-42.37	
76 d4-1,4-Dichlorobe	88279	44140	176558	36001	-59.22	<-only

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.61	-0.30
34 1,4-Difluorobenze	7.64	7.14	8.14	7.63	-0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.77	-0.19
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider
Sample Matrix: SOLID
Lab Smp Id: RG51C
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/finn5.i/02AUG10.b/s8260b.m
Misc Info: 10-18185

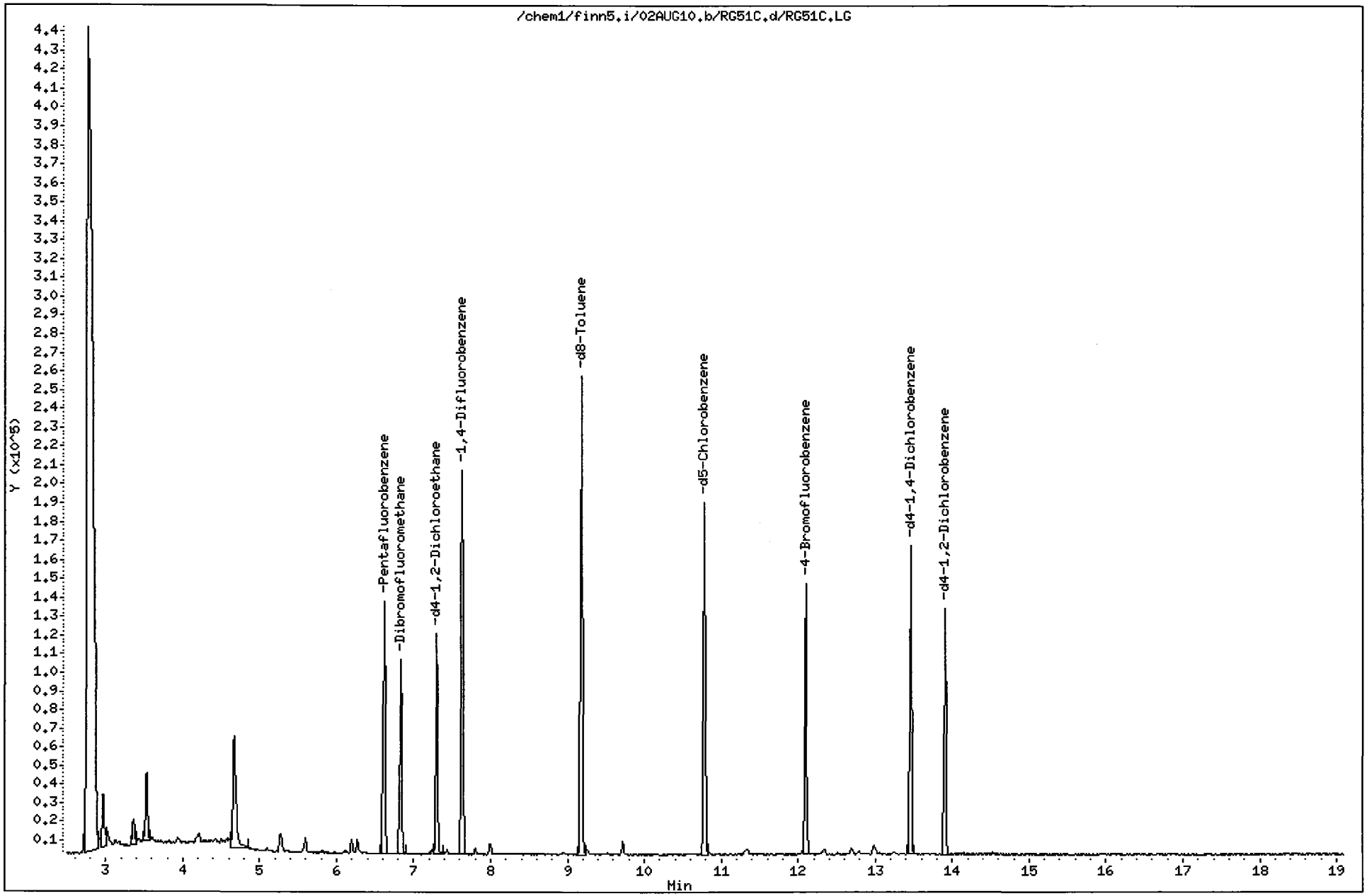
Client SDG: RG51
Fraction: VOA
Client Smp ID: PSB12-2-4-072810
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	55.948	111.90	30-160
$ 31 d4-1,2-Dichloroeth	50.000	61.364	122.73	75-152
$ 43 d8-Toluene	50.000	51.839	103.68	82-115
$ 62 4-Bromofluorobenze	50.000	42.471	84.94	64-120
$ 79 d4-1,2-Dichloroben	50.000	48.146	96.29	80-120

Data File: /chem1/finn5.i/02AUG10.b/RG51C.d
Date : 03-AUG-2010 01:19
Client ID: PSB12-2-4-072810
Sample Info: RG51C,5,10.257,0

Instrument: finn5.i
Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Incorporated
Analytical Chemists and Consultants

VOA Analyst Notes / Corrective Action Log

ARI Project ID: RG51 Client ID: Floyd Snider

ARI SOP: **404S**(Gas) **410S**(BTEX) **430S**(VPH) **700S**(8260C) **703S**(SIM) **706S**(524.2) **710S**(RSK-175)

Parameter(s): _____

Instrument: NT-3 NT-5 NT-7 NT-9 NT-10 PID-1 PID-2 PID-3 FID-6 FINN-5

Purge Volume (mL) 5 Curve Date: 7/27/10 Analysis Start Date: 8/3/10

pH ≤ 2.0	YES / NO / NA	Method Blank In Control?	YES / NO
BFB Tune Meets Criteria?	YES / NO / NA	LCS / LCSD Recovery In Control?	YES / NO
Internal Standard Meets Criteria?	YES / NO / NA	Surrogate Recovery In Control?	YES / NO
ICal acceptable?	YES / NO	CCal acceptable?	YES / NO
Q flag applied?	YES / NO / NA	Q flag applied?	YES / NO / NA
Manual Integrations for ICal?	YES / NO	Manual Integrations for Samples?	Yes / NO
Special Analysis Criteria Met?	YES / NO / NA		

Bubbles/Headspace: None SM (≤ 2mm •) PB (2-4mm) LG (> 4mm ●) Head Space

Detail problems, corrective actions and/or other pertinent information below (use reverse side when necessary):

Samples D-H +QC on Fmn

Additional Details on Reverse: Yes / No

Analyst: _____ **Date:** 8/4/10

Reviewer: _____ **Date:** _____

Analytical Resources Inc.: Organics Instrument Log

FINN5 Serial No.: 5500-000421A

Date: 8/3/10 Analysis: 8260C Analyst: B

GC Program: F5 Column No: 821729 Column Type: RTX502.2

Instrument Tune (.U or .CT.): BFB0810 EM Voltage: 1624

Calibration File: 0723(10) Curve Date: 7/23/10

IS/SS	Ical/Ccal	LCS/ICV
WJ648-1	WJ646-2	WJ646-2

INTERNAL STANDARD SUMMARY FOR DATABATCH - /chem1/finn5.i/03AUG10.b

	Time	Filename	LabID	ClientID	WT								
1	1658	BFB0803.d	BFB0803	BFB0803	0.00								
2	1732	0500803.d	CC0803	VSTD050	5.00	6.63	100977	7.64	143091	10.79	122516	13.47	68263
3	1805	LCS0803.d	LCS0803	LCS0803	5.00	6.61	104522	7.62	144956	10.77	122538	13.46	66534
4	1843	LCS0803A.d	LCS0803	LCS0803	5.00	6.63	102338	7.65	150681	10.79	128428	13.48	70841
5	1910	MB0803.d	MB0803	MB0803	5.00	6.61	99355	7.63	143410	10.77	123593	13.46	59605
6	1949	RG93D.d	RG93D	080210-FL-3911-1-03	5.00	6.62	90486	7.64	134977	10.78	114493	13.47	49067
7	2016	RG93D2.d	RG93D	080210-FL-3911-1-03	5.00	6.62	98328	7.64	149866	10.78	127258	13.47	53684
8	2042	RG93I.d	RG93I	Trip Blank	5.00	6.61	115891	7.62	172007	10.77	154630	13.45	81260
9	2112	RH00A.d	RH00A	HPT02-100803	5.00	6.63	105348	7.64	157724	10.79	135598	13.47	68916
10	2135	RH00B.d	RH00B	HPT03-100803	5.00	6.63	101782	7.64	154832	10.79	139290	13.47	70593
11	2201	RH00C.d	RH00C	HPT04-100803	5.00	6.62	99694	7.63	151096	10.78	132620	13.47	68150
12	2235	RH00D.d	RH00D	Trip Blanks (2L	1	6.62	97973	7.63	148032	10.78	132904	13.46	67411
13	2256	RF74A2.d	RF74A	SYASB01-5	5.00	6.62	94115	7.63	126999	10.78	80053	13.47	26489
14	2322	RF74B2.d	RF74B	SYASB01-8	5.00	6.62	112141	7.63	169957	10.78	139375	13.47	60231
15	2349	RG51D.d	RG51D	PSB12-8-10-072810	5.00	6.62	104577	7.63	154963	10.78	129225	13.46	58507
16	0015	RG51E.d	RG51E	PSB12-8-10-072810-D	5.00	6.62	104607	7.63	157265	10.78	135951	13.47	61970
17	0041	RG51F.d	RG51F	PSB12-14-17-072810	5.00	6.61	101147	7.63	155868	10.77	140121	13.46	70324
18	0108	RG51G.d	RG51G	PSB12-4-6-072810	5.00	6.61	102851	7.62	158461	10.77	135053	13.45	64952
19	0134	RG51H.d	RG51H	PSB12-TB 2 2L	1	6.62	97270	7.63	150952	10.78	133384	13.46	64254
20	0200	RG71A.d	RG71A	KSC-DP-16-S-7.5-8-1	5.00	6.63	100976	7.64	155312	10.79	130709	13.47	54727
21	0227	RG71B.d	RG71B	KSC-DP-11-S-5-5.5-1	5.00	6.62	100711	7.64	156801	10.78	141204	13.47	71769
22	0253	RG71C.d	RG71C	KSC-DP-13-S-4.5-5-1	5.00	6.62	97195	7.63	151883	10.77	138848	13.46	68653
23	0319	RG71D.d	RG71D	Trip Blanks (2L	1	6.63	96003	7.65	149548	10.79	128984	13.48	62991
24	0346	RG51FMS.d	RG51FMS	PSB12-14-17-072 MS	5.00	6.62	121614	7.64	185937	10.78	157720	13.47	85323
25	0412	RG51FMSD.d	RG51FMSD	PSB12-14-17-072 MSD	5.00	6.61	121485	7.63	182664	10.77	155101	13.46	79938

Mair

M

Eve

period.

Q-FLAG SUMMARY FOR DATABATCH - /chem1/finn5.i/03AUG10.b

Instrument: finn5.i Date: 03-AUG-2010 Method: s8260b.m

INITIAL CAL: 23-JUL-2010

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: 03-AUG-2010

Compound	%D
Bromomethane	35.4
1,2,4-Trimethylbenzene	20.8
4-Isopropyl Toluene	24.1
N-Butyl Benzene	25.1

MANUAL INTEGRATION SUMMARY FOR DATABATCH - /chem1/finn5.i/03AUG10.b

ARI Job No.: BFB0   Method: bfb8260.m   Instrument: finn5.i   Date: 03-AUG-2010

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1658	BFB0803.d	BFB0803	BFB0803	1	NO MANUAL INTEGRATION
1732	0500803.d	CC0803	VSTD050	1	NO MANUAL INTEGRATION
1805	LCS0803.d	LCS0803	LCS0803	1	NO MANUAL INTEGRATION
1843	LCS0803A.d	LCS0803	LCS0803	1	NO MANUAL INTEGRATION
1910	MB0803.d	MB0803	MB0803	1	NO MANUAL INTEGRATION
2349	RG51D.d	RG51D	PSB12-8-10	1	NO MANUAL INTEGRATION
0015	RG51E.d	RG51E	PSB12-8-10	1	NO MANUAL INTEGRATION
0041	RG51F.d	RG51F	PSB12-14-1	1	NO MANUAL INTEGRATION
0108	RG51G.d	RG51G	PSB12-4-6-	1	NO MANUAL INTEGRATION
0134	RG51H.d	RG51H	PSB12-TB	1	NO MANUAL INTEGRATION
0346	RG51FMS.d	RG51FMS	PSB12-14-1	1	NO MANUAL INTEGRATION
0412	RG51FMSD.d	RG51FMSD	PSB12-14-1	1	NO MANUAL INTEGRATION

Data File: /chem1/finn5.i/03AUG10.b/BFB0803.d

Date : 03-AUG-2010 16:58

Client ID: BFB0803

Instrument: finn5.i

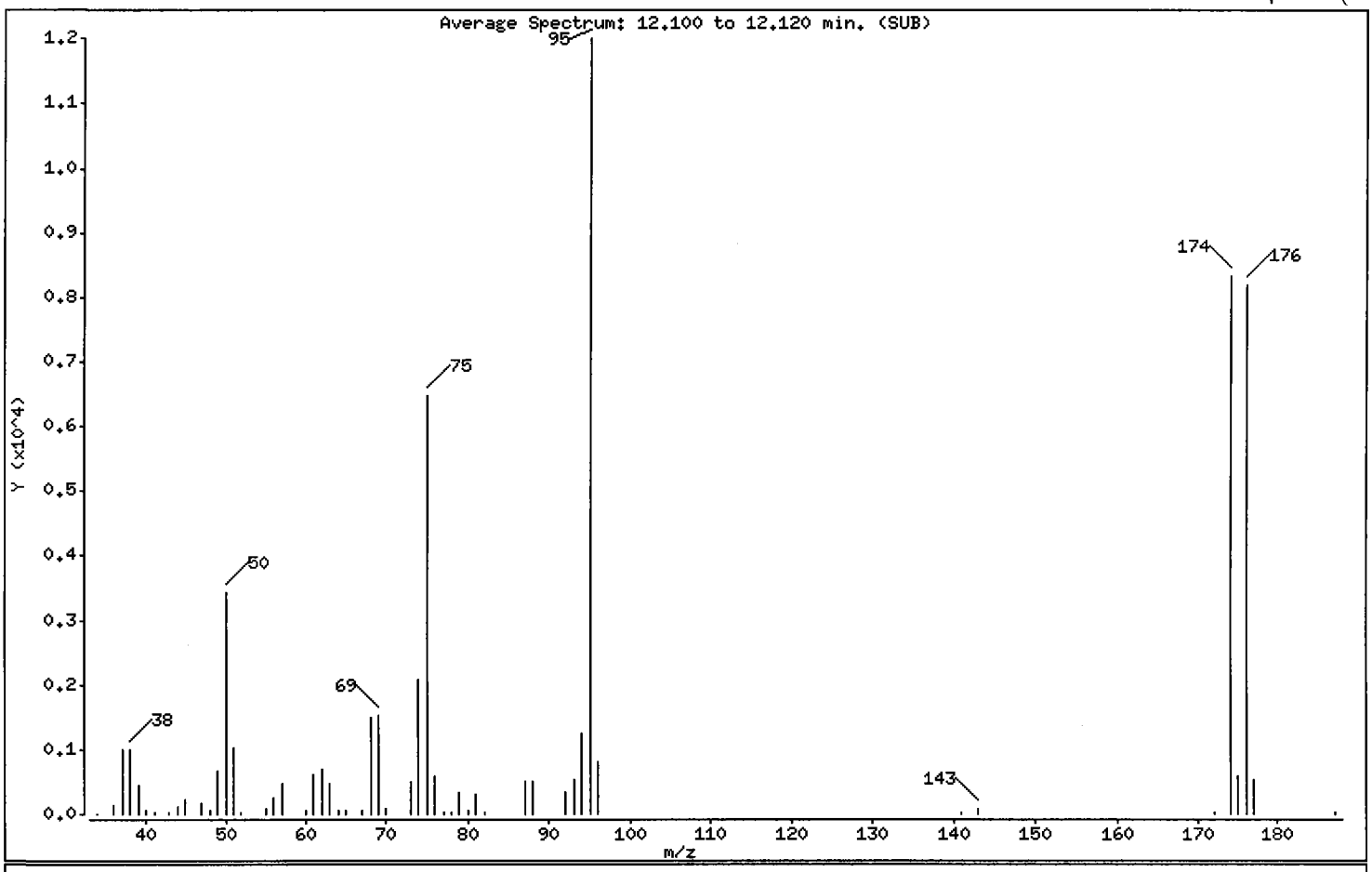
Sample Info: BFB0803,BFB0803,,1,03AUG10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

1 Bromofluorobenzene



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	8.00 - 40.00% of mass 95	28.51
75	30.00 - 66.00% of mass 95	53.94
96	5.00 - 9.00% of mass 95	6.67
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 101.00% of mass 95	69.45
175	4.00 - 9.00% of mass 174	4.76 (6.85)
176	93.00 - 101.00% of mass 174	68.13 (98.09)
177	5.00 - 9.00% of mass 176	4.38 (6.43)

Data File: /chem1/finn5.i/03AUG10.b/BFB0803.d

Date : 03-AUG-2010 16:58

Client ID: BFB0803

Instrument: finn5.i

Sample Info: BFB0803,BFB0803,,1,03AUG10,,

Operator: PB

Column phase: RTX502.2

Column diameter: 0.18

Data File: BFB0803.d
Spectrum: Average Spectrum: 12.100 to 12.120 min. (SUB)
Location of Maximum: 95.00
Number of points: 54

m/z	Y	m/z	Y	m/z	Y	m/z	Y
34.00	10	51.00	1023	70.00	74	93.00	527
36.00	147	52.00	20	73.00	508	94.00	1234
37.00	988	55.00	85	74.00	2075	95.00	12008
38.00	990	56.00	251	75.00	6477	96.00	801
39.00	454	57.00	459	76.00	577	141.00	27
40.00	68	60.00	52	77.00	36	143.00	95
41.00	23	61.00	616	78.00	26	172.00	17
43.00	25	62.00	681	79.00	327	174.00	8340
44.00	103	63.00	457	80.00	52	175.00	571
45.00	223	64.00	50	81.00	318	176.00	8181
47.00	166	65.00	44	82.00	34	177.00	526
48.00	45	67.00	47	87.00	492	187.00	27
49.00	668	68.00	1504	88.00	499		
50.00	3424	69.00	1509	92.00	341		

Data File: /chem1/finn5.i/03AUG10.b/BFB0803.d

Date : 03-AUG-2010 16:58

Client ID: BFB0803

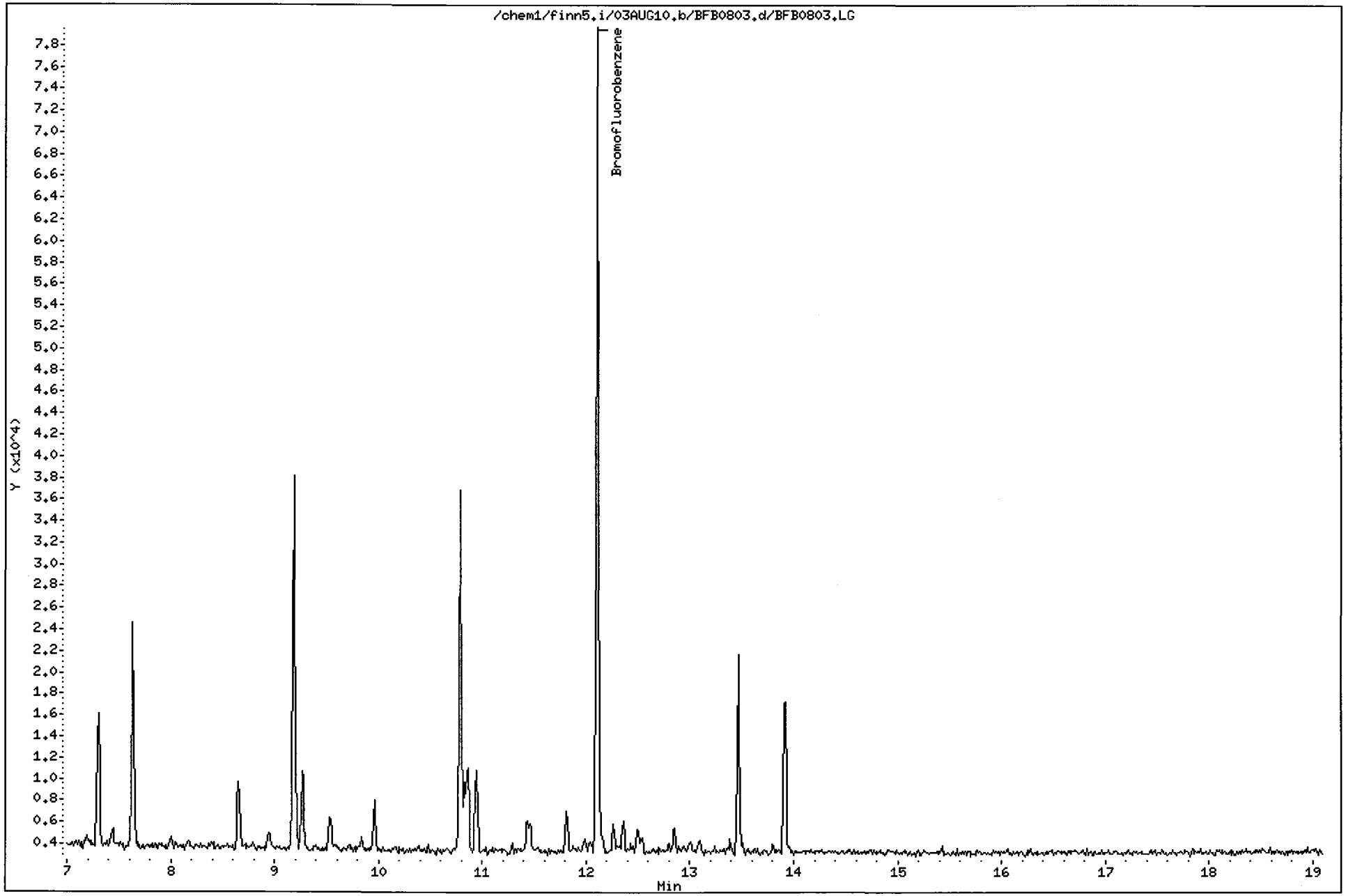
Sample Info: BFB0803,BFB0803,,1,03AUG10,,

Column phase: RTX502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/03AUG10.b/0500803.d
Lab Smp Id: CC0803 Client Smp ID: VSTD050
Inj Date : 03-AUG-2010 17:32
Operator : PB Inst ID: finn5.i
Smp Info : CC0803,5,5,0
Misc Info : 10-
Comment :
Method : /chem1/finn5.i/03AUG10.b/s8260b.m
Meth Date : 03-Aug-2010 18:29 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.455)	68802	50.0000	52.546
2 Chloromethane	50	3.316	3.316	(0.500)	150050	50.0000	42.593
3 Vinyl Chloride	62	3.427	3.427	(0.517)	136116	50.0000	48.860
4 Bromomethane	94	3.919	3.919	(0.591)	102420	50.0000	67.697
5 Chloroethane	64	3.990	3.990	(0.602)	92128	50.0000	50.640
6 Trichlorofluoromethane	101	4.251	4.251	(0.641)	142718	50.0000	53.006
7 Acrolein	56	4.633	4.633	(0.698)	72970	250.000	217.26
8 112Trichloro122Trifluoroethane	101	4.643	4.643	(0.700)	104085	50.0000	49.378
9 Acetone	43	4.683	4.683	(0.706)	121888	250.000	215.69
10 1,1-Dichloroethene	96	4.844	4.844	(0.730)	91589	50.0000	47.882
11 Bromoethane	108	5.065	5.065	(0.764)	69528	50.0000	49.084
12 Iodomethane	142	5.166	5.166	(0.779)	131751	50.0000	58.256
13 Methylene Chloride	84	5.276	5.276	(0.795)	89679	50.0000	41.637
14 Acrylonitrile	53	5.357	5.357	(0.808)	23775	50.0000	47.653(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.397	5.397	(0.814)	133891	50.0000	45.517(Q)
	15 Carbon Disulfide	76	5.387	5.387	(0.812)	315710	50.0000	53.217
	17 Trans-1,2-Dichloroethene	96	5.568	5.568	(0.839)	77686	50.0000	47.656
	18 Vinyl Acetate	43	5.889	5.889	(0.888)	141861	50.0000	49.687
	19 1,1-Dichloroethane	63	5.940	5.940	(0.895)	150038	50.0000	50.031
	20 2-Butanone	43	6.281	6.281	(0.947)	145185	250.000	228.33
	21 2,2-Dichloropropane	77	6.462	6.462	(0.974)	91936	50.0000	50.101
	22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.980)	70035	50.0000	48.746
*	23 Pentafluorobenzene	168	6.633	6.633	(1.000)	100977	50.0000	
	24 Chloroform	83	6.653	6.653	(1.003)	120252	50.0000	49.366
	26 Bromochloromethane	128	6.814	6.814	(1.027)	33183	50.0000	48.646
$	25 Dibromofluoromethane	111	6.844	6.844	(1.032)	55986	50.0000	46.519(Q)
	27 1,1,1-Trichloroethane	97	7.035	7.035	(1.061)	92711	50.0000	48.934
	29 1,1-Dichloropropene	75	7.186	7.186	(0.941)	98462	50.0000	50.672
	30 Carbon Tetrachloride	117	7.296	7.296	(0.955)	85266	50.0000	50.461
$	31 d4-1,2-Dichloroethane	65	7.316	7.316	(1.103)	60868	50.0000	46.220
	32 1,2-Dichloroethane	62	7.397	7.397	(0.968)	87696	50.0000	51.410
	33 Benzene	78	7.447	7.447	(0.975)	243557	50.0000	51.834
*	34 1,4-Difluorobenzene	114	7.638	7.638	(1.000)	143091	50.0000	
	35 Trichloroethene	95	8.010	8.010	(1.049)	69920	50.0000	50.790
	36 1,2-Dichloropropane	63	8.171	8.171	(1.070)	72770	50.0000	49.130
	37 Bromodichloromethane	83	8.412	8.412	(1.101)	81409	50.0000	51.408
	39 Dibromomethane	93	8.482	8.482	(1.111)	36643	50.0000	49.838
	40 2-Chloroethyl Vinyl Ether	63	8.623	8.623	(1.129)	28268	50.0000	54.496
	41 4-Methyl-2-Pentanone	58	8.663	8.663	(1.134)	87719	250.000	231.90
	42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.167)	93412	50.0000	54.028
$	43 d8-Toluene	98	9.196	9.196	(1.204)	168641	50.0000	53.637
	44 Toluene	92	9.276	9.276	(1.214)	138060	50.0000	49.522
	45 Trans 1,3-Dichloropropene	75	9.407	9.407	(1.232)	76547	50.0000	52.671
	46 2-Hexanone	43	9.537	9.537	(0.884)	213664	250.000	213.34
	47 1,1,2-Trichloroethane	97	9.588	9.588	(1.255)	43686	50.0000	50.335
	48 1,3-Dichloropropane	76	9.849	9.849	(0.912)	82633	50.0000	47.921
	49 Tetrachloroethene	166	9.960	9.960	(0.923)	66687	50.0000	48.993
	50 Chlorodibromomethane	129	10.171	10.171	(0.942)	56465	50.0000	48.677
	51 1,2-Dibromoethane	107	10.392	10.392	(1.361)	45906	50.0000	49.381
*	52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	122516	50.0000	
	53 Chlorobenzene	112	10.834	10.834	(1.004)	143955	50.0000	50.096
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	267496	50.0000	55.046
	55 1,1,1,2-Tetrachloroethane	131	10.864	10.864	(1.007)	49415	50.0000	44.931
	56 m,p-xylene	106	10.944	10.944	(1.014)	203645	100.000	114.66
	57 o-Xylene	106	11.437	11.437	(1.060)	98706	50.0000	53.472
	58 Styrene	104	11.467	11.467	(1.062)	164798	50.0000	57.739
	59 Isopropyl Benzene	105	11.819	11.819	(0.878)	264770	50.0000	57.619
	60 Bromoform	173	11.879	11.879	(0.882)	34568	50.0000	46.788
	61 1,1,2,2-Tetrachloroethane	83	11.990	11.990	(0.890)	58890	50.0000	44.360
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	70948	50.0000	49.481
	63 1,2,3-Trichloropropane	110	12.160	12.160	(0.903)	11985	50.0000	45.573

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/Kg)	AMOUNTS ON-COL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.907)	21238	50.0000	52.053
	66 N-Propyl Benzene	91	12.271	12.271	(0.911)	331395	50.0000	55.866
	67 Bromobenzene	156	12.361	12.361	(0.918)	64995	50.0000	50.738
	68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.924)	222124	50.0000	59.549
	69 2-Chloro Toluene	91	12.502	12.502	(0.928)	206496	50.0000	52.978
	70 4-Chloro Toluene	91	12.542	12.542	(0.931)	215483	50.0000	57.675
	71 T-Butyl Benzene	119	12.854	12.854	(0.954)	190856	50.0000	59.808
	72 1,2,4-Trimethylbenzene	105	12.904	12.904	(0.958)	221869	50.0000	60.421
	73 S-Butyl Benzene	105	13.095	13.095	(0.972)	300309	50.0000	57.202
	74 4-Isopropyl Toluene	119	13.246	13.246	(0.984)	223535	50.0000	62.053
	75 1,3-Dichlorobenzene	146	13.397	13.397	(0.995)	123007	50.0000	56.205
*	76 d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	68263	50.0000	
	77 1,4-Dichlorobenzene	146	13.507	13.507	(1.003)	120757	50.0000	55.140
	78 N-Butyl Benzene	91	13.718	13.718	(1.019)	243261	50.0000	62.535
$	79 d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.034)	60439	50.0000	48.676
	80 1,2-Dichlorobenzene	146	13.949	13.949	(1.036)	110067	50.0000	52.917
	81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.103)	9890	50.0000	43.055
	82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.181)	65163	50.0000	51.482
	83 Hexachloro 1,3-Butadiene	225	16.060	16.060	(1.193)	45351	50.0000	53.198
	84 Naphthalene	128	16.231	16.231	(1.205)	96956	50.0000	42.232
	85 1,2,3-Trichlorobenzene	180	16.522	16.522	(1.227)	56375	50.0000	46.587

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: 0500803.d
Lab Smp Id: CC0803
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-

Calibration Date: 03-AUG-2010
Calibration Time: 17:32
Client Smp ID: VSTD050
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	100977	-22.99
34 1,4-Difluorobenze	191559	95780	383118	143091	-25.30
52 d5-Chlorobenzene	161199	80600	322398	122516	-24.00
76 d4-1,4-Dichlorobe	88279	44140	176558	68263	-22.67

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.62	6.12	7.12	6.63	0.15
34 1,4-Difluorobenze	7.63	7.13	8.13	7.64	0.13
52 d5-Chlorobenzene	10.78	10.28	11.28	10.79	0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i Injection Date: 03-AUG-2010 17:32
Lab File ID: 0500803.d Init. Cal. Date(s): 23-JUL-2010 23-JUL-2010
Analysis Type: SOIL Init. Cal. Times: 17:18 20:28
Lab Sample ID: CC0803 Quant Type: ISTD
Method: /chem1/finn5.i/03AUG10.b/s8260b.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 Dichlorodifluoromethane	0.64835	0.68137	0.010	5.09262	20.00000	Averaged
2 Chloromethane	1.74440	1.48598	0.100	-14.81456	20.00000	Averaged
3 Vinyl Chloride	1.37944	1.34799	0.010	-2.27995	20.00000	Averaged
4 Bromomethane	0.74914	1.01429	0.010	35.39420	20.00000	Averaged <-
5 Chloroethane	0.90084	0.91237	0.010	1.27909	20.00000	Averaged
6 Trichlorofluoromethane	1.33321	1.41337	0.010	6.01227	20.00000	Averaged
7 Acrolein	0.16631	0.14453	0.010	-13.09550	20.00000	Averaged
8 112Trichloro122Trifluoroeth	1.04376	1.03077	0.010	-1.24425	20.00000	Averaged
9 Acetone	0.27982	0.24142	0.010	-13.72260	20.00000	Averaged
10 1,1-Dichloroethene	0.94715	0.90702	0.010	-4.23650	20.00000	Averaged
11 Bromoethane	0.70140	0.68855	0.010	-1.83266	20.00000	Averaged
12 Iodomethane	1.11986	1.30476	0.010	16.51152	20.00000	Averaged
13 Methylene Chloride	1.06648	0.88811	0.010	-16.72529	20.00000	Averaged
14 Acrylonitrile	0.24705	0.23545	0.010	-4.69411	20.00000	Averaged
16 Methyl tert-Butyl Ether	1.45653	1.32595	0.010	-8.96511	20.00000	Averaged
15 Carbon Disulfide	2.93755	3.12653	0.010	6.43340	20.00000	Averaged
17 Trans-1,2-Dichloroethene	0.80717	0.76934	0.010	-4.68711	20.00000	Averaged
18 Vinyl Acetate	1.41371	1.40488	0.010	-0.62518	20.00000	Averaged
19 1,1-Dichloroethane	1.48492	1.48586	0.100	0.06288	20.00000	Averaged
20 2-Butanone	0.31485	0.28756	0.010	-8.66792	20.00000	Averaged
21 2,2-Dichloropropane	0.90863	0.91047	0.010	0.20204	20.00000	Averaged
22 Cis-1,2-Dichloroethene	0.71142	0.69357	0.010	-2.50863	20.00000	Averaged
24 Chloroform	1.20617	1.19088	0.010	-1.26776	20.00000	Averaged
26 Bromochloromethane	0.33777	0.32862	0.010	-2.70897	20.00000	Averaged
$ 25 Dibromofluoromethane	0.59593	0.55444	0.010	-6.96182	20.00000	Averaged
27 1,1,1-Trichloroethane	0.93813	0.91814	0.010	-2.13084	20.00000	Averaged
29 1,1-Dichloropropene	0.67899	0.68811	0.010	1.34355	20.00000	Averaged
30 Carbon Tetrachloride	0.59044	0.59589	0.010	0.92293	20.00000	Averaged
$ 31 d4-1,2-Dichloroethane	0.65208	0.60279	0.010	-7.55902	20.00000	Averaged
32 1,2-Dichloroethane	0.59607	0.61287	0.010	2.81921	20.00000	Averaged
33 Benzene	1.64186	1.70210	0.010	3.66905	20.00000	Averaged
35 Trichloroethene	0.48104	0.48864	0.010	1.57903	20.00000	Averaged
36 1,2-Dichloropropane	0.51756	0.50856	0.010	-1.73927	20.00000	Averaged
37 Bromodichloromethane	0.55335	0.56893	0.010	2.81542	20.00000	Averaged
39 Dibromomethane	0.25692	0.25609	0.010	-0.32437	20.00000	Averaged

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i Injection Date: 03-AUG-2010 17:32
Lab File ID: 0500803.d Init. Cal. Date(s): 23-JUL-2010 23-JUL-2010
Analysis Type: SOIL Init. Cal. Times: 17:18 20:28
Lab Sample ID: CC0803 Quant Type: ISTD
Method: /chem1/finn5.i/03AUG10.b/s8260b.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
40 2-Chloroethyl Vinyl Ether	0.18125	0.19755	0.001	8.99230	20.00000	Averaged	
41 4-Methyl-2-Pentanone	0.13218	0.12261	0.010	-7.23983	20.00000	Averaged	
42 Cis 1,3-dichloropropene	0.60415	0.65282	0.010	8.05517	20.00000	Averaged	
$ 43 d8-Toluene	1.09864	1.17855	0.010	7.27377	20.00000	Averaged	
44 Toluene	0.97414	0.96484	0.010	-0.95505	20.00000	Averaged	
45 Trans 1,3-Dichloropropene	0.50782	0.53495	0.010	5.34283	20.00000	Averaged	
46 2-Hexanone	0.40872	0.34879	0.010	-14.66251	20.00000	Averaged	
47 1,1,2-Trichloroethane	0.30327	0.30530	0.010	0.67060	20.00000	Averaged	
48 1,3-Dichloropropane	0.70372	0.67447	0.010	-4.15746	20.00000	Averaged	
49 Tetrachloroethene	0.55550	0.54432	0.010	-2.01383	20.00000	Averaged	
50 Chlorodibromomethane	0.47341	0.46088	0.010	-2.64631	20.00000	Averaged	
51 1,2-Dibromoethane	0.32484	0.32082	0.010	-1.23779	20.00000	Averaged	
53 Chlorobenzene	1.17275	1.17499	0.300	0.19170	20.00000	Averaged	
54 Ethyl Benzene	1.98319	2.18335	0.010	10.09267	20.00000	Averaged	
55 1,1,1,2-Tetrachloroethane	0.44884	0.40334	0.010	-10.13818	20.00000	Averaged	
56 m,p-xylene	0.72486	0.83110	0.010	14.65646	20.00000	Averaged	
57 o-Xylene	0.75335	0.80566	0.010	6.94322	20.00000	Averaged	
58 Styrene	1.16482	1.34512	0.010	15.47817	20.00000	Averaged	
59 Isopropyl Benzene	3.36576	3.87864	0.010	15.23827	20.00000	Averaged	
60 Bromoform	0.54116	0.50639	0.100	-6.42411	20.00000	Averaged	
61 1,1,2,2-Tetrachloroethane	0.97237	0.86269	0.300	-11.28059	20.00000	Averaged	
$ 62 4-Bromofluorobenzene	0.58517	0.57909	0.010	-1.03823	20.00000	Averaged	
63 1,2,3-Trichloropropane	0.19264	0.17558	0.010	-8.85387	20.00000	Averaged	
65 Trans-1,4-Dichloro 2-Butene	0.29886	0.31113	0.010	4.10542	20.00000	Averaged	
66 N-Propyl Benzene	4.34491	4.85463	0.010	11.73134	20.00000	Averaged	
67 Bromobenzene	0.93828	0.95212	0.010	1.47542	20.00000	Averaged	
68 1,3,5-Trimethyl Benzene	2.73214	3.25391	0.010	19.09741	20.00000	Averaged	
69 2-Chloro Toluene	2.85492	3.02498	0.010	5.95679	20.00000	Averaged	
70 4-Chloro Toluene	2.73658	3.15663	0.010	15.34927	20.00000	Averaged	
71 T-Butyl Benzene	2.33736	2.79587	0.010	19.61635	20.00000	Averaged	
72 1,2,4-Trimethylbenzene	2.68961	3.25017	0.010	20.84158	20.00000	Averaged	<-
73 S-Butyl Benzene	3.84536	4.39925	0.010	14.40413	20.00000	Averaged	
74 4-Isopropyl Toluene	2.63853	3.27459	0.010	24.10627	20.00000	Averaged	<-
75 1,3-Dichlorobenzene	1.60301	1.80195	0.010	12.41003	20.00000	Averaged	
77 1,4-Dichlorobenzene	1.60408	1.76899	0.010	10.28047	20.00000	Averaged	

Analytical Resources, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: finn5.i Injection Date: 03-AUG-2010 17:32
Lab File ID: 0500803.d Init. Cal. Date(s): 23-JUL-2010 23-JUL-2010
Analysis Type: SOIL Init. Cal. Times: 17:18 20:28
Lab Sample ID: CC0803 Quant Type: ISTD
Method: /chem1/finn5.i/03AUG10.b/s8260b.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
78 N-Butyl Benzene	2.84923	3.56355	0.010	25.07077	20.00000	Averaged	<-
$ 79 d4-1,2-Dichlorobenzene	0.90947	0.88538	0.010	-2.64859	20.00000	Averaged	
80 1,2-Dichlorobenzene	1.52349	1.61238	0.010	5.83473	20.00000	Averaged	
81 1,2-Dibromo 3-Chloropropane	0.16826	0.14489	0.010	-13.89053	20.00000	Averaged	
82 1,2,4-Trichlorobenzene	0.92710	0.95459	0.010	2.96492	20.00000	Averaged	
83 Hexachloro 1,3-Butadiene	0.62441	0.66435	0.010	6.39600	20.00000	Averaged	
84 Naphthalene	1.68157	1.42032	0.010	-15.53596	20.00000	Averaged	
85 1,2,3-Trichlorobenzene	0.88636	0.82585	0.010	-6.82656	20.00000	Averaged	

Data File: /chem1/finn5.i/03AUG10.b/0500803.d

Date : 03-AUG-2010 17:32

Client ID: VSTD050

Sample Info: CC0803,5,5,0

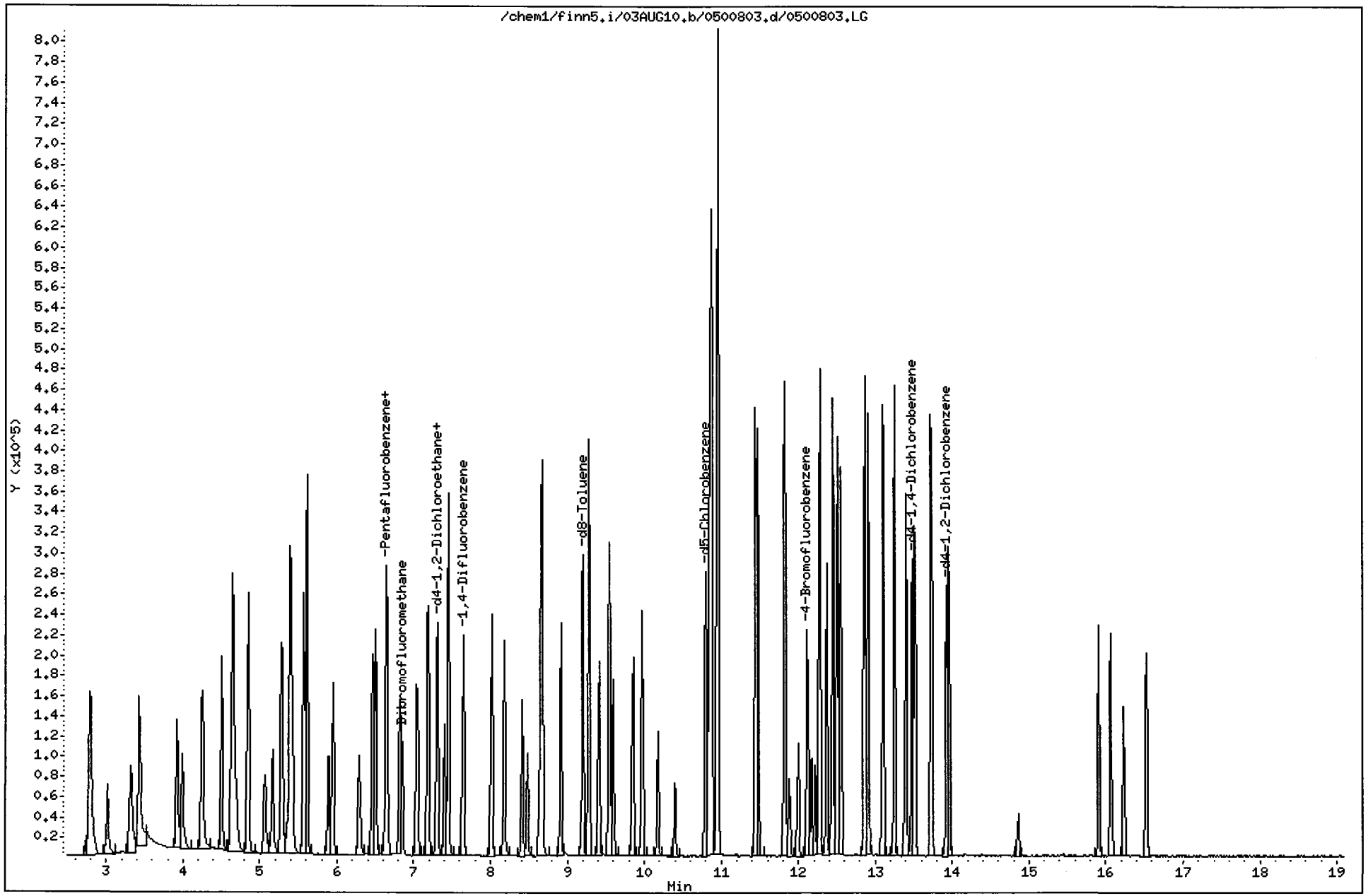
Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18

RG51 - 66388



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/03AUG10.b/LCS0803.d
Lab Smp Id: LCS0803 Client Smp ID: LCS0803
Inj Date : 03-AUG-2010 18:05
Operator : PB Inst ID: finn5.i
Smp Info : LCS0803,5,5,0
Misc Info : 10-18188
Comment :
Method : /chem1/finn5.i/03AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:40 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	2.995	3.015	(0.453)	72929	53.8089	53.809
2 Chloromethane	50	3.296	3.316	(0.498)	159737	43.8048	43.805
3 Vinyl Chloride	62	3.407	3.427	(0.515)	142154	49.2968	49.297
4 Bromomethane	94	3.899	3.919	(0.590)	107900	68.9004	68.900(R)
5 Chloroethane	64	3.970	3.990	(0.600)	95102	50.5013	50.501
6 Trichlorofluoromethane	101	4.231	4.251	(0.640)	146084	52.4163	52.416
7 Acrolein	56	4.613	4.633	(0.698)	82032	235.960	235.96
8 112Trichloro122Trifluoroethane	101	4.623	4.643	(0.699)	110897	50.8255	50.826
9 Acetone	43	4.663	4.683	(0.705)	140379	239.990	239.99
10 1,1-Dichloroethene	96	4.824	4.844	(0.729)	97296	49.1405	49.140
11 Bromoethane	108	5.045	5.065	(0.763)	74469	50.7889	50.789
12 Iodomethane	142	5.146	5.166	(0.778)	142953	61.0651	61.065
13 Methylene Chloride	84	5.256	5.276	(0.795)	94140	42.2263	42.226
14 Acrylonitrile	53	5.347	5.357	(0.808)	27326	52.9116	52.912(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.387	5.397	(0.815)	144558	47.4773	47.477(Q)
	15 Carbon Disulfide	76	5.367	5.387	(0.812)	331046	53.9095	53.910
	17 Trans-1,2-Dichloroethene	96	5.548	5.568	(0.839)	82444	48.8601	48.860
	18 Vinyl Acetate	43	5.869	5.889	(0.888)	156623	52.9976	52.998
	19 1,1-Dichloroethane	63	5.919	5.940	(0.895)	156092	50.2851	50.285
	20 2-Butanone	43	6.261	6.281	(0.947)	164335	249.683	249.68
	21 2,2-Dichloropropane	77	6.442	6.462	(0.974)	93302	49.1208	49.121
	22 Cis-1,2-Dichloroethene	96	6.482	6.502	(0.980)	74697	50.2273	50.227
*	23 Pentafluorobenzene	168	6.613	6.633	(1.000)	104522	50.0000	
	24 Chloroform	83	6.633	6.653	(1.003)	125419	49.7414	49.741
	26 Bromochloromethane	128	6.794	6.814	(1.027)	35005	49.5763	49.576
$	25 Dibromofluoromethane	111	6.824	6.844	(1.032)	57523	46.1754	46.175(Q)
	27 1,1,1-Trichloroethane	97	7.015	7.035	(1.061)	95408	48.6501	48.650
	29 1,1-Dichloropropene	75	7.166	7.186	(0.941)	103790	52.7265	52.726
	30 Carbon Tetrachloride	117	7.276	7.296	(0.955)	87005	50.8281	50.828
$	31 d4-1,2-Dichloroethane	65	7.296	7.316	(1.103)	60973	44.7302	44.730
	32 1,2-Dichloroethane	62	7.377	7.397	(0.968)	89356	51.7087	51.709
	33 Benzene	78	7.427	7.447	(0.975)	252458	53.0379	53.038
*	34 1,4-Difluorobenzene	114	7.618	7.638	(1.000)	144956	50.0000	
	35 Trichloroethene	95	7.990	8.010	(1.049)	71810	51.4914	51.491
	36 1,2-Dichloropropane	63	8.161	8.171	(1.071)	74740	49.8111	49.811
	37 Bromodichloromethane	83	8.392	8.412	(1.102)	83748	52.2041	52.204
	39 Dibromomethane	93	8.462	8.482	(1.111)	38576	51.7912	51.791
	40 2-Chloroethyl Vinyl Ether	63	8.603	8.623	(1.129)	29515	56.1684	56.168(Q)
	41 4-Methyl-2-Pentanone	58	8.643	8.663	(1.135)	95993	250.509	250.51
	42 Cis 1,3-dichloropropene	75	8.894	8.914	(1.168)	97320	55.5637	55.564
$	43 d8-Toluene	98	9.176	9.196	(1.204)	167387	52.5534	52.553
	44 Toluene	92	9.256	9.276	(1.215)	140770	49.8450	49.845
	45 Trans 1,3-Dichloropropene	75	9.387	9.407	(1.232)	79214	53.8055	53.805
	46 2-Hexanone	43	9.517	9.537	(0.883)	236843	236.445	236.44
	47 1,1,2-Trichloroethane	97	9.568	9.588	(1.256)	46459	52.8418	52.842
	48 1,3-Dichloropropane	76	9.829	9.849	(0.912)	86028	49.8811	49.881
	49 Tetrachloroethene	166	9.949	9.960	(0.924)	68451	50.2797	50.280
	50 Chlorodibromomethane	129	10.150	10.171	(0.942)	59041	50.8881	50.888
	51 1,2-Dibromoethane	107	10.372	10.392	(1.361)	48625	51.6329	51.633
*	52 d5-Chlorobenzene	117	10.774	10.794	(1.000)	122538	50.0000	
	53 Chlorobenzene	112	10.814	10.834	(1.004)	145168	50.5087	50.509
	54 Ethyl Benzene	91	10.844	10.864	(1.007)	269178	55.3826	55.383
	55 1,1,1,2-Tetrachloroethane	131	10.844	10.864	(1.007)	50272	45.7018	45.702
	56 m,p-xylene	106	10.924	10.944	(1.014)	208388	117.306	117.30
	57 o-Xylene	106	11.417	11.437	(1.060)	99974	54.1488	54.149
	58 Styrene	104	11.447	11.467	(1.062)	164538	57.6376	57.638
	59 Isopropyl Benzene	105	11.799	11.819	(0.877)	266525	59.5089	59.509
	60 Bromoform	173	11.859	11.879	(0.881)	36230	50.3121	50.312
	61 1,1,2,2-Tetrachloroethane	83	11.980	11.990	(0.890)	61933	47.8646	47.865
$	62 4-Bromofluorobenzene	95	12.090	12.110	(1.122)	70007	48.8157	48.816
	63 1,2,3-Trichloropropane	110	12.150	12.160	(0.903)	12656	49.3723	49.372

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.201	12.211	(0.907)	21751	54.6938	54.694
	66 N-Propyl Benzene	91	12.251	12.271	(0.910)	334664	57.8834	57.883
	67 Bromobenzene	156	12.341	12.361	(0.917)	66238	53.0519	53.052
	68 1,3,5-Trimethyl Benzene	105	12.422	12.442	(0.923)	224865	61.8508	61.851
	69 2-Chloro Toluene	91	12.482	12.502	(0.928)	209723	55.2050	55.205
	70 4-Chloro Toluene	91	12.532	12.542	(0.931)	225631	61.9607	61.961
	71 T-Butyl Benzene	119	12.834	12.854	(0.954)	194480	62.5281	62.528(R)
	72 1,2,4-Trimethylbenzene	105	12.884	12.904	(0.957)	223535	62.4572	62.457
	73 S-Butyl Benzene	105	13.085	13.095	(0.972)	303735	59.3587	59.359
	74 4-Isopropyl Toluene	119	13.226	13.246	(0.983)	230017	65.5124	65.512(R)
	75 1,3-Dichlorobenzene	146	13.377	13.397	(0.994)	125768	58.9603	58.960
*	76 d4-1,4-Dichlorobenzene	152	13.457	13.467	(1.000)	66534	50.0000	
	77 1,4-Dichlorobenzene	146	13.487	13.507	(1.002)	125522	58.8057	58.806
	78 N-Butyl Benzene	91	13.708	13.718	(1.019)	252319	66.5502	66.550
$	79 d4-1,2-Dichlorobenzene	152	13.899	13.919	(1.033)	59219	48.9329	48.933
	80 1,2-Dichlorobenzene	146	13.929	13.949	(1.035)	112256	55.3727	55.373
	81 1,2-Dibromo 3-Chloropropane	75	14.834	14.854	(1.102)	10895	48.6610	48.661
	82 1,2,4-Trichlorobenzene	180	15.879	15.899	(1.180)	72546	58.8049	58.805
	83 Hexachloro 1,3-Butadiene	225	16.040	16.060	(1.192)	47716	57.4274	57.427
	84 Naphthalene	128	16.211	16.231	(1.205)	110885	49.5547	49.555
	85 1,2,3-Trichlorobenzene	180	16.502	16.522	(1.226)	61578	52.2087	52.209

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: LCS0803.d
Lab Smp Id: LCS0803
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18188

Calibration Date: 03-AUG-2010
Calibration Time: 17:32
Client Smp ID: LCS0803
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	104522	-20.28
34 1,4-Difluorobenze	191559	95780	383118	144956	-24.33
52 d5-Chlorobenzene	161199	80600	322398	122538	-23.98
76 d4-1,4-Dichlorobe	88279	44140	176558	66534	-24.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.61	-0.30
34 1,4-Difluorobenze	7.64	7.14	8.14	7.62	-0.26
52 d5-Chlorobenzene	10.79	10.29	11.29	10.77	-0.19
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 03AUG10
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: LCS0803 Client Smp ID: LCS0803
Level: LOW Operator: PB
Data Type: MS DATA SampleType: LCS
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18188

SPIKE	COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1	Dichlorodifluorome	50.000	53.809	107.62	53-148
2	Chloromethane	50.000	43.805	87.61	64-125
3	Vinyl Chloride	50.000	49.297	98.59	63-137
4	Bromomethane	50.000	68.900	137.80*	57-136
5	Chloroethane	50.000	50.501	101.00	64-131
6	Trichlorofluoromet	50.000	52.416	104.83	69-132
7	Acrolein	250.00	235.96	94.38	54-137
8	112Trichloro122Tri	50.000	50.826	101.65	74-130
9	Acetone	250.00	239.99	96.00	60-131
10	1,1-Dichloroethene	50.000	49.140	98.28	75-126
11	Bromoethane	50.000	50.789	101.58	76-126
12	Iodomethane	50.000	61.065	122.13	65-139
13	Methylene Chloride	50.000	42.226	84.45	70-123
15	Carbon Disulfide	50.000	53.910	107.82	71-129
14	Acrylonitrile	50.000	52.912	105.82	67-125
16	Methyl tert-Butyl	50.000	47.477	94.95	70-120
17	Trans-1,2-Dichloro	50.000	48.860	97.72	80-120
18	Vinyl Acetate	50.000	52.998	106.00	60-136
19	1,1-Dichloroethane	50.000	50.285	100.57	80-120
20	2-Butanone	250.00	249.68	99.87	70-120
21	2,2-Dichloropropan	50.000	49.121	98.24	74-123
22	Cis-1,2-Dichloroet	50.000	50.227	100.45	80-120
24	Chloroform	50.000	49.741	99.48	80-120
26	Bromochloromethane	50.000	49.576	99.15	80-120
27	1,1,1-Trichloroeth	50.000	48.650	97.30	77-121
29	1,1-Dichloropropen	50.000	52.726	105.45	80-120
30	Carbon Tetrachlori	50.000	50.828	101.66	77-122
32	1,2-Dichloroethane	50.000	51.709	103.42	76-120
33	Benzene	50.000	53.038	106.08	80-120
35	Trichloroethene	50.000	51.491	102.98	80-120
36	1,2-Dichloropropan	50.000	49.811	99.62	80-120
37	Bromodichlorometha	50.000	52.204	104.41	77-121
39	Dibromomethane	50.000	51.791	103.58	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	56.168	112.34	10-191
41 4-Methyl-2-Pentano	250.00	250.51	100.20	67-120
42 Cis 1,3-dichloropr	50.000	55.564	111.13	74-120
44 Toluene	50.000	49.845	99.69	80-120
45 Trans 1,3-Dichloro	50.000	53.805	107.61	65-120
46 2-Hexanone	250.00	236.44	94.58	65-130
47 1,1,2-Trichloroeth	50.000	52.842	105.68	80-120
48 1,3-Dichloropropan	50.000	49.881	99.76	80-120
49 Tetrachloroethene	50.000	50.280	100.56	80-121
50 Chlorodibromometha	50.000	50.888	101.78	64-120
51 1,2-Dibromoethane	50.000	51.633	103.27	75-120
53 Chlorobenzene	50.000	50.509	101.02	80-120
55 1,1,1,2-Tetrachlor	50.000	45.702	91.40	69-121
54 Ethyl Benzene	50.000	55.383	110.77	80-127
56 m,p-xylene	100.00	117.30	117.31	80-125
57 o-Xylene	50.000	54.149	108.30	78-120
58 Styrene	50.000	57.638	115.28	80-123
59 Isopropyl Benzene	50.000	59.509	119.02	80-127
60 Bromoform	50.000	50.312	100.62	60-120
61 1,1,2,2-Tetrachlor	50.000	47.865	95.73	74-120
63 1,2,3-Trichloropro	50.000	49.372	98.74	72-121
65 Trans-1,4-Dichloro	50.000	54.694	109.39	65-126
66 N-Propyl Benzene	50.000	57.883	115.77	80-132
67 Bromobenzene	50.000	53.052	106.10	80-120
68 1,3,5-Trimethyl Be	50.000	61.851	123.70	80-125
69 2-Chloro Toluene	50.000	55.205	110.41	80-125
70 4-Chloro Toluene	50.000	61.961	123.92	80-127
71 T-Butyl Benzene	50.000	62.528	125.06*	87-122
72 1,2,4-Trimethylben	50.000	62.457	124.91	80-126
73 S-Butyl Benzene	50.000	59.359	118.72	80-134
74 4-Isopropyl Toluen	50.000	65.512	131.02*	80-131
75 1,3-Dichlorobenzen	50.000	58.960	117.92	80-120
77 1,4-Dichlorobenzen	50.000	58.806	117.61	80-120
78 N-Butyl Benzene	50.000	66.550	133.10	80-138
80 1,2-Dichlorobenzen	50.000	55.373	110.75	80-120
81 1,2-Dibromo 3-Chlo	50.000	48.661	97.32	59-120
82 1,2,4-Trichloroben	50.000	58.805	117.61	78-130
83 Hexachloro 1,3-But	50.000	57.427	114.85	76-129
84 Naphthalene	50.000	49.555	99.11	66-120
85 1,2,3-Trichloroben	50.000	52.209	104.42	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	46.175	92.35	30-160

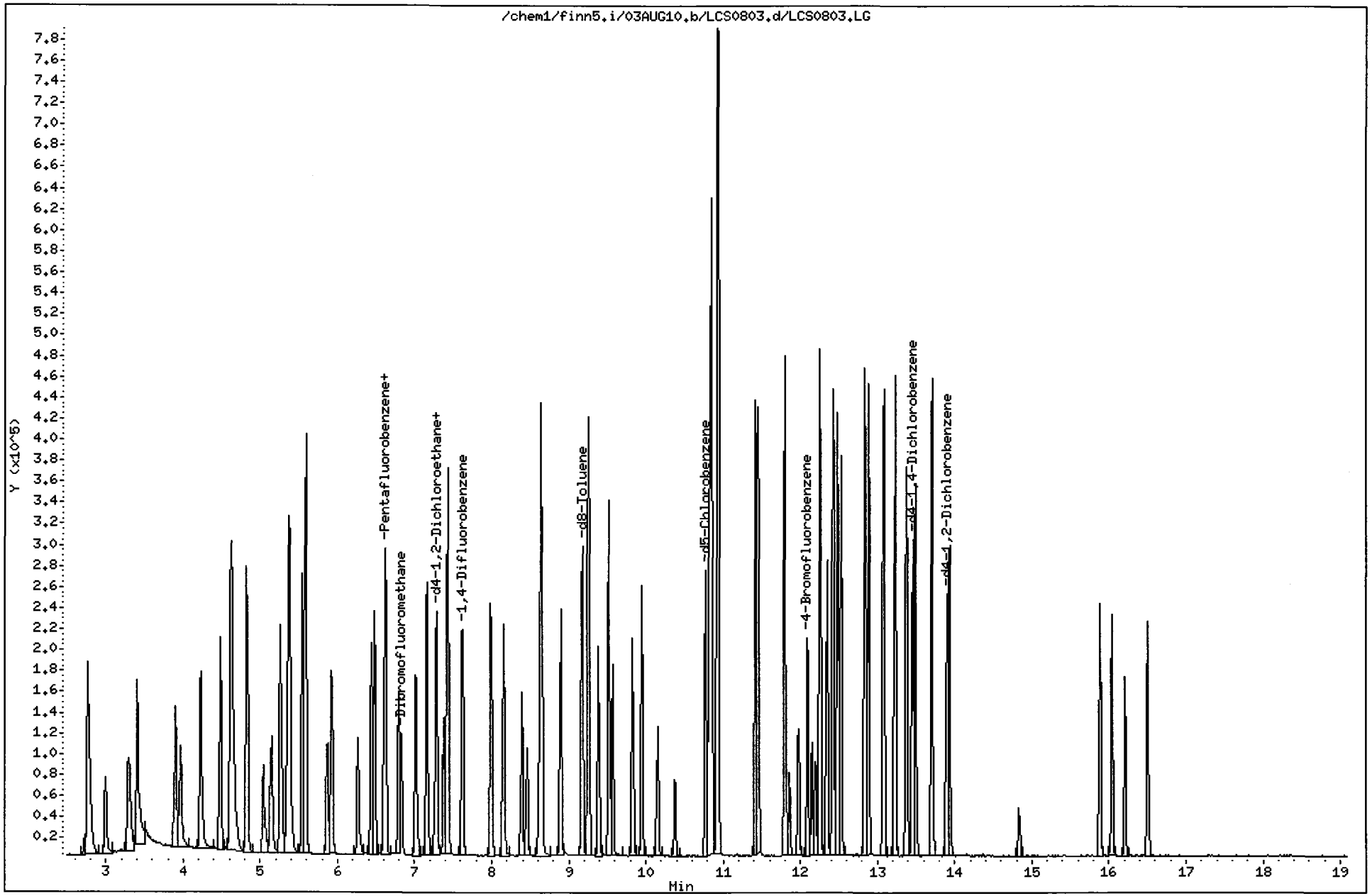
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	50.000	44.730	89.46	75-152
$ 43 d8-Toluene	50.000	52.553	105.11	82-115
$ 62 4-Bromofluorobenze	50.000	48.816	97.63	64-120
$ 79 d4-1,2-Dichloroben	50.000	48.933	97.87	80-120

Data File: /chem1/finn5.i/03AUG10.b/LCS0803.d
Date : 03-AUG-2010 18:05
Client ID: LCS0803
Sample Info: LCS0803,5,5,0

Instrument: finn5.i

Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/03AUG10.b/LCS0803A.d
Lab Smp Id: LCS0803 Client Smp ID: LCS0803
Inj Date : 03-AUG-2010 18:43
Operator : PB Inst ID: finn5.i
Smp Info : LCS0803,5,5,0
Misc Info : 10-18188
Comment :
Method : /chem1/finn5.i/03AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:40 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	3.015	3.015	(0.455)	69438	52.3265	52.326
2 Chloromethane	50	3.316	3.316	(0.500)	157252	44.0436	44.044
3 Vinyl Chloride	62	3.427	3.427	(0.517)	141286	50.0414	50.041
4 Bromomethane	94	3.919	3.919	(0.591)	107362	70.0199	70.020(R)
5 Chloroethane	64	3.990	3.990	(0.602)	93847	50.8984	50.898
6 Trichlorofluoromethane	101	4.251	4.251	(0.641)	146125	53.5499	53.550
7 Acrolein	56	4.633	4.633	(0.698)	79425	233.336	233.34
8 112Trichloro122Trifluoroethane	101	4.653	4.643	(0.702)	108863	50.9581	50.958
9 Acetone	43	4.683	4.683	(0.706)	134927	235.592	235.59
10 1,1-Dichloroethene	96	4.844	4.844	(0.730)	97900	50.5008	50.501
11 Bromoethane	108	5.065	5.065	(0.764)	72614	50.5807	50.581
12 Iodomethane	142	5.166	5.166	(0.779)	134633	58.7384	58.738
13 Methylene Chloride	84	5.286	5.276	(0.797)	94329	43.2140	43.214
14 Acrylonitrile	53	5.367	5.357	(0.809)	26022	51.4619	51.462(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	5.407	5.397	(0.815)	142550	47.8169	47.817(Q)
	15 Carbon Disulfide	76	5.387	5.387	(0.812)	328060	54.5634	54.563
	17 Trans-1,2-Dichloroethene	96	5.568	5.568	(0.839)	82577	49.9833	49.983
	18 Vinyl Acetate	43	5.889	5.889	(0.888)	152340	52.6485	52.648
	19 1,1-Dichloroethane	63	5.950	5.940	(0.897)	155485	51.1585	51.158
	20 2-Butanone	43	6.291	6.281	(0.948)	161778	251.043	251.04
	21 2,2-Dichloropropane	77	6.472	6.462	(0.976)	92301	49.6308	49.631
	22 Cis-1,2-Dichloroethene	96	6.502	6.502	(0.980)	73327	50.3583	50.358
*	23 Pentafluorobenzene	168	6.633	6.633	(1.000)	102338	50.0000	
	24 Chloroform	83	6.653	6.653	(1.003)	124986	50.6275	50.628
	26 Bromochloromethane	128	6.814	6.814	(1.027)	34549	49.9747	49.975
$	25 Dibromofluoromethane	111	6.854	6.844	(1.033)	61351	50.2992	50.299(Q)
	27 1,1,1-Trichloroethane	97	7.045	7.035	(1.062)	93218	48.5478	48.548
	29 1,1-Dichloropropene	75	7.186	7.186	(0.940)	103319	50.4930	50.493
	30 Carbon Tetrachloride	117	7.296	7.296	(0.954)	87223	49.0194	49.019
$	31 d4-1,2-Dichloroethane	65	7.316	7.316	(1.103)	69705	52.2274	52.227
	32 1,2-Dichloroethane	62	7.407	7.397	(0.968)	88873	49.4752	49.475
	33 Benzene	78	7.447	7.447	(0.974)	252175	50.9656	50.966
*	34 1,4-Difluorobenzene	114	7.648	7.638	(1.000)	150681	50.0000	
	35 Trichloroethene	95	8.020	8.010	(1.049)	73078	50.4097	50.410
	36 1,2-Dichloropropane	63	8.181	8.171	(1.070)	74942	48.0480	48.048
	37 Bromodichloromethane	83	8.412	8.412	(1.100)	82193	49.2882	49.288
	39 Dibromomethane	93	8.482	8.482	(1.109)	38374	49.5625	49.562
	40 2-Chloroethyl Vinyl Ether	63	8.633	8.623	(1.129)	29727	54.4224	54.422(Q)
	41 4-Methyl-2-Pentanone	58	8.663	8.663	(1.133)	95238	239.096	239.10
	42 Cis 1,3-dichloropropene	75	8.914	8.914	(1.166)	95609	52.5129	52.513
$	43 d8-Toluene	98	9.196	9.196	(1.202)	174563	52.7241	52.724
	44 Toluene	92	9.276	9.276	(1.213)	142046	48.3859	48.386
	45 Trans 1,3-Dichloropropene	75	9.407	9.407	(1.230)	77431	50.5961	50.596
	46 2-Hexanone	43	9.537	9.537	(0.884)	233759	222.664	222.66
	47 1,1,2-Trichloroethane	97	9.588	9.588	(1.254)	45082	49.3274	49.327
	48 1,3-Dichloropropane	76	9.849	9.849	(0.912)	85303	47.1924	47.192
	49 Tetrachloroethene	166	9.970	9.960	(0.924)	67300	47.1671	47.167
	50 Chlorodibromomethane	129	10.171	10.171	(0.942)	57932	47.6422	47.642
	51 1,2-Dibromoethane	107	10.402	10.392	(1.360)	48687	49.7344	49.734
*	52 d5-Chlorobenzene	117	10.794	10.794	(1.000)	128428	50.0000	
	53 Chlorobenzene	112	10.834	10.834	(1.004)	146856	48.7526	48.753
	54 Ethyl Benzene	91	10.864	10.864	(1.007)	269024	52.8124	52.812
	55 1,1,1,2-Tetrachloroethane	131	10.864	10.864	(1.007)	50742	44.0135	44.014
	56 m,p-xylene	106	10.944	10.944	(1.014)	207375	111.382	111.38
	57 o-Xylene	106	11.437	11.437	(1.060)	99123	51.2256	51.226
	58 Styrene	104	11.467	11.467	(1.062)	165193	55.2131	55.213
	59 Isopropyl Benzene	105	11.819	11.819	(0.877)	266925	55.9747	55.975
	60 Bromoform	173	11.879	11.879	(0.881)	36505	47.6119	47.612
	61 1,1,2,2-Tetrachloroethane	83	12.000	11.990	(0.890)	61495	44.6366	44.637
$	62 4-Bromofluorobenzene	95	12.110	12.110	(1.122)	73784	49.0898	49.090
	63 1,2,3-Trichloropropane	110	12.171	12.160	(0.903)	12176	44.6119	44.612

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	12.211	12.211	(0.906)	21843	51.5858	51.586
	66 N-Propyl Benzene	91	12.271	12.271	(0.910)	335113	54.4372	54.437
	67 Bromobenzene	156	12.361	12.361	(0.917)	66295	49.8694	49.869
	68 1,3,5-Trimethyl Benzene	105	12.442	12.442	(0.923)	224426	57.9770	57.977
	69 2-Chloro Toluene	91	12.502	12.502	(0.928)	209283	51.7399	51.740
	70 4-Chloro Toluene	91	12.552	12.542	(0.931)	223775	57.7149	57.715
	71 T-Butyl Benzene	119	12.854	12.854	(0.954)	192903	58.2503	58.250
	72 1,2,4-Trimethylbenzene	105	12.904	12.904	(0.957)	222748	58.4534	58.453
	73 S-Butyl Benzene	105	13.105	13.095	(0.972)	304514	55.8928	55.893
	74 4-Isopropyl Toluene	119	13.246	13.246	(0.983)	228853	61.2180	61.218
	75 1,3-Dichlorobenzene	146	13.397	13.397	(0.994)	124639	54.8785	54.878
*	76 d4-1,4-Dichlorobenzene	152	13.477	13.467	(1.000)	70841	50.0000	
	77 1,4-Dichlorobenzene	146	13.507	13.507	(1.002)	123057	54.1458	54.146
	78 N-Butyl Benzene	91	13.728	13.718	(1.019)	252031	62.4327	62.433
$	79 d4-1,2-Dichlorobenzene	152	13.919	13.919	(1.033)	64495	50.0524	50.052
	80 1,2-Dichlorobenzene	146	13.949	13.949	(1.035)	111253	51.5415	51.542
	81 1,2-Dibromo 3-Chloropropane	75	14.854	14.854	(1.102)	10808	45.3376	45.338
	82 1,2,4-Trichlorobenzene	180	15.899	15.899	(1.180)	70753	53.8646	53.865
	83 Hexachloro 1,3-Butadiene	225	16.060	16.060	(1.192)	46784	52.8824	52.882
	84 Naphthalene	128	16.231	16.231	(1.204)	112794	47.3432	47.343
	85 1,2,3-Trichlorobenzene	180	16.522	16.522	(1.226)	61140	48.6857	48.686

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: LCS0803A.d
Lab Smp Id: LCS0803
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18188

Calibration Date: 03-AUG-2010
Calibration Time: 17:32
Client Smp ID: LCS0803
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	102338	-21.95
34 1,4-Difluorobenze	191559	95780	383118	150681	-21.34
52 d5-Chlorobenzene	161199	80600	322398	128428	-20.33
76 d4-1,4-Dichlorobe	88279	44140	176558	70841	-19.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.63	0.00
34 1,4-Difluorobenze	7.64	7.14	8.14	7.65	0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.79	0.00
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.48	0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name:
Client SDG: 03AUG10
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: LCS0803
Client Smp ID: LCS0803
Level: LOW
Operator: PB
Data Type: MS DATA
SampleType: LCSD
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18188

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
1 Dichlorodifluorome	50.000	52.326	104.65	53-148
2 Chloromethane	50.000	44.044	88.09	64-125
3 Vinyl Chloride	50.000	50.041	100.08	63-137
4 Bromomethane	50.000	70.020	140.04*	57-136
5 Chloroethane	50.000	50.898	101.80	64-131
6 Trichlorofluoromet	50.000	53.550	107.10	69-132
7 Acrolein	250.00	233.34	93.33	54-137
8 112Trichloro122Tri	50.000	50.958	101.92	74-130
9 Acetone	250.00	235.59	94.24	60-131
10 1,1-Dichloroethene	50.000	50.501	101.00	75-126
11 Bromoethane	50.000	50.581	101.16	76-126
12 Iodomethane	50.000	58.738	117.48	65-139
13 Methylene Chloride	50.000	43.214	86.43	70-123
15 Carbon Disulfide	50.000	54.563	109.13	71-129
14 Acrylonitrile	50.000	51.462	102.92	67-125
16 Methyl tert-Butyl	50.000	47.817	95.63	70-120
17 Trans-1,2-Dichloro	50.000	49.983	99.97	80-120
18 Vinyl Acetate	50.000	52.648	105.30	60-136
19 1,1-Dichloroethane	50.000	51.158	102.32	80-120
20 2-Butanone	250.00	251.04	100.42	70-120
21 2,2-Dichloropropan	50.000	49.631	99.26	74-123
22 Cis-1,2-Dichloroet	50.000	50.358	100.72	80-120
24 Chloroform	50.000	50.628	101.26	80-120
26 Bromochloromethane	50.000	49.975	99.95	80-120
27 1,1,1-Trichloroeth	50.000	48.548	97.10	77-121
29 1,1-Dichloropropen	50.000	50.493	100.99	80-120
30 Carbon Tetrachlori	50.000	49.019	98.04	77-122
32 1,2-Dichloroethane	50.000	49.475	98.95	76-120
33 Benzene	50.000	50.966	101.93	80-120
35 Trichloroethene	50.000	50.410	100.82	80-120
36 1,2-Dichloropropan	50.000	48.048	96.10	80-120
37 Bromodichlorometha	50.000	49.288	98.58	77-121
39 Dibromomethane	50.000	49.562	99.13	80-120

SPIKE COMPOUND	CONC ADDED ug/Kg	CONC RECOVERED ug/Kg	% RECOVERED	LIMITS
40 2-Chloroethyl Viny	50.000	54.422	108.84	10-191
41 4-Methyl-2-Pentano	250.00	239.10	95.64	67-120
42 Cis 1,3-dichloropr	50.000	52.513	105.03	74-120
44 Toluene	50.000	48.386	96.77	80-120
45 Trans 1,3-Dichloro	50.000	50.596	101.19	65-120
46 2-Hexanone	250.00	222.66	89.07	65-130
47 1,1,2-Trichloroeth	50.000	49.327	98.65	80-120
48 1,3-Dichloropropan	50.000	47.192	94.38	80-120
49 Tetrachloroethene	50.000	47.167	94.33	80-121
50 Chlorodibromometha	50.000	47.642	95.28	64-120
51 1,2-Dibromoethane	50.000	49.734	99.47	75-120
53 Chlorobenzene	50.000	48.753	97.51	80-120
55 1,1,1,2-Tetrachlor	50.000	44.014	88.03	69-121
54 Ethyl Benzene	50.000	52.812	105.62	80-127
56 m,p-xylene	100.00	111.38	111.38	80-125
57 o-Xylene	50.000	51.226	102.45	78-120
58 Styrene	50.000	55.213	110.43	80-123
59 Isopropyl Benzene	50.000	55.975	111.95	80-127
60 Bromoform	50.000	47.612	95.22	60-120
61 1,1,2,2-Tetrachlor	50.000	44.637	89.27	74-120
63 1,2,3-Trichloropro	50.000	44.612	89.22	72-121
65 Trans-1,4-Dichloro	50.000	51.586	103.17	65-126
66 N-Propyl Benzene	50.000	54.437	108.87	80-132
67 Bromobenzene	50.000	49.869	99.74	80-120
68 1,3,5-Trimethyl Be	50.000	57.977	115.95	80-125
69 2-Chloro Toluene	50.000	51.740	103.48	80-125
70 4-Chloro Toluene	50.000	57.715	115.43	80-127
71 T-Butyl Benzene	50.000	58.250	116.50	87-122
72 1,2,4-Trimethylben	50.000	58.453	116.91	80-126
73 S-Butyl Benzene	50.000	55.893	111.79	80-134
74 4-Isopropyl Toluen	50.000	61.218	122.44	80-131
75 1,3-Dichlorobenzen	50.000	54.878	109.76	80-120
77 1,4-Dichlorobenzen	50.000	54.146	108.29	80-120
78 N-Butyl Benzene	50.000	62.433	124.87	80-138
80 1,2-Dichlorobenzen	50.000	51.542	103.08	80-120
81 1,2-Dibromo 3-Chlo	50.000	45.338	90.68	59-120
82 1,2,4-Trichloroben	50.000	53.865	107.73	78-130
83 Hexachloro 1,3-But	50.000	52.882	105.76	76-129
84 Naphthalene	50.000	47.343	94.69	66-120
85 1,2,3-Trichloroben	50.000	48.686	97.37	73-123

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	50.299	100.60	30-160

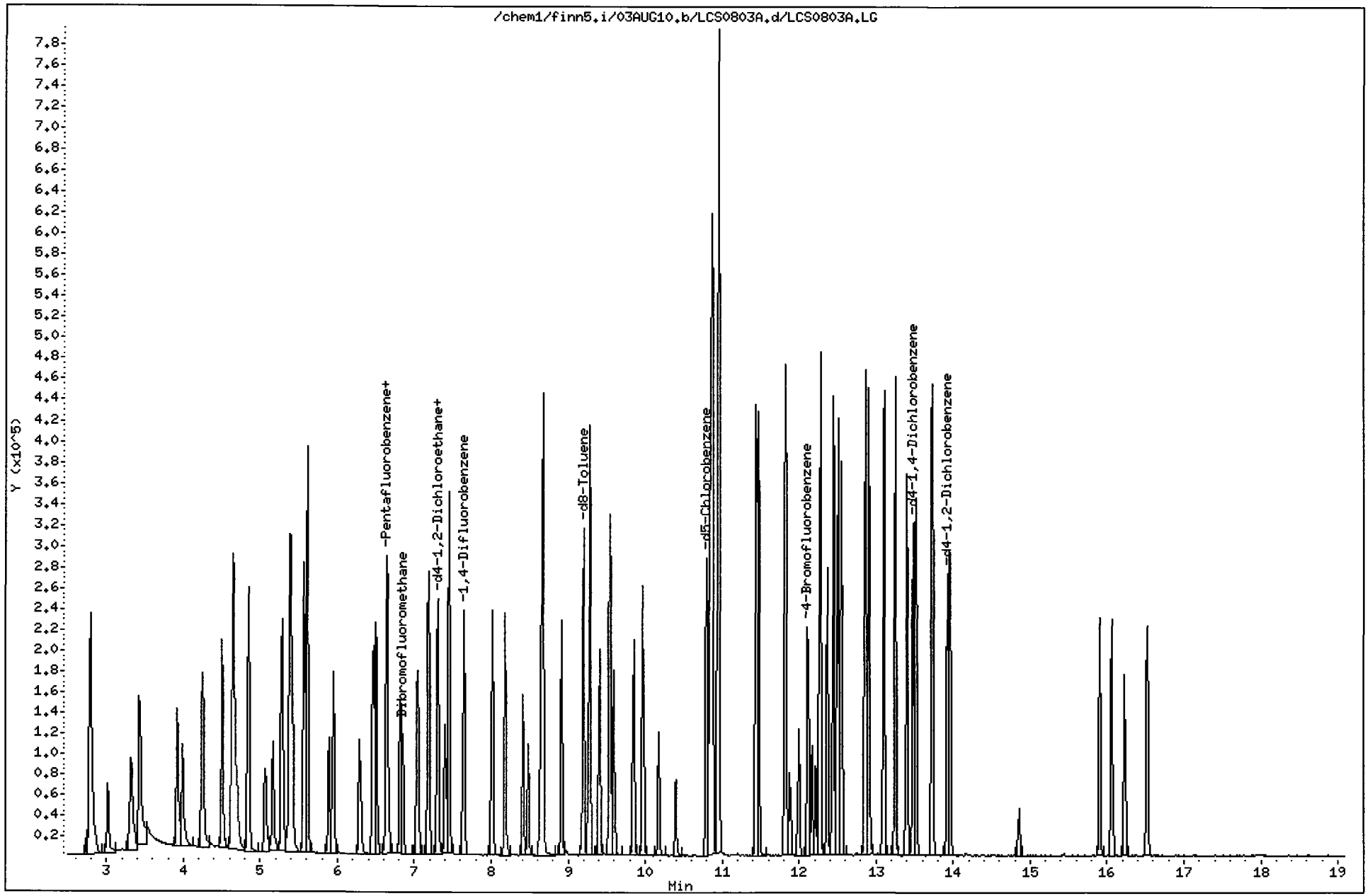
SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 31 d4-1,2-Dichloroeth	50.000	52.227	104.45	75-152
$ 43 d8-Toluene	50.000	52.724	105.45	82-115
$ 62 4-Bromofluorobenze	50.000	49.090	98.18	64-120
$ 79 d4-1,2-Dichloroben	50.000	50.052	100.10	80-120

Data File: /chem1/finn5.i/03AUG10.b/LCS0803A.d
Date : 03-AUG-2010 18:43
Client ID: LCS0803
Sample Info: LCS0803,5,5,0

Instrument: finn5.i

Operator: PB
Column diameter: 0.18

Column phase: Rtx502.2



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/03AUG10.b/MB0803.d
Lab Smp Id: MB0803 Client Smp ID: MB0803
Inj Date : 03-AUG-2010 19:10
Operator : PB Inst ID: finn5.i
Smp Info : MB0803,5,5,0
Misc Info : 10-18188
Comment :
Method : /chem1/finn5.i/03AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:40 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	5.00000	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	4.663	4.683	(0.705)	2670	4.80198	4.802
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	6.271	6.281	(0.948)	2383	3.80891	3.809
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.613	6.633	(1.000)	99355	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.834	6.844	(1.033)	62078	52.4233	52.423(Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.296	7.316	(1.103)	69633	53.7399	53.740
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	Compound Not Detected.					
*	34 1,4-Difluorobenzene	114	7.628	7.638	(1.000)	143410	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	8.643	8.663	(1.133)	1185	3.12578	3.126(Q)
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.176	9.196	(1.203)	166442	52.8201	52.820
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.774	10.794	(1.000)	123593	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.100	12.110	(1.123)	67828	46.8926	46.892
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
66	N-Propyl Benzene	91	Compound Not Detected.					
67	Bromobenzene	156	Compound Not Detected.					
68	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
69	2-Chloro Toluene	91	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	13.457	13.467	(1.000)	59605	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	13.899	13.919	(1.033)	55328	51.0324	51.032(Q)
80	1,2-Dichlorobenzene	146	13.939	13.949	(1.036)	1061	0.58420	0.5842
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	Naphthalene	128	16.211	16.231	(1.205)	4709	2.34910	2.349
85	1,2,3-Trichlorobenzene	180	16.502	16.522	(1.226)	2424	2.29409	2.294

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: MB0803.d
Lab Smp Id: MB0803
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18188

Calibration Date: 03-AUG-2010
Calibration Time: 17:32
Client Smp ID: MB0803
Level: LOW
Sample Type: SOIL

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	99355	-24.22
34 1,4-Difluorobenze	191559	95780	383118	143410	-25.14
52 d5-Chlorobenzene	161199	80600	322398	123593	-23.33
76 d4-1,4-Dichlorobe	88279	44140	176558	59605	-32.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.61	-0.30
34 1,4-Difluorobenze	7.64	7.14	8.14	7.63	-0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.77	-0.19
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Client SDG: 03AUG10
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: MB0803 Client Smp ID: MB0803
Level: LOW Operator: PB
Data Type: MS DATA SampleType: BLANK
SpikeList File: all.spk Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18188

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	52.423	104.85	30-160
$ 31 d4-1,2-Dichloroeth	50.000	53.740	107.48	75-152
$ 43 d8-Toluene	50.000	52.820	105.64	82-115
$ 62 4-Bromofluorobenze	50.000	46.892	93.79	64-120
$ 79 d4-1,2-Dichloroben	50.000	51.032	102.06	80-120

Data File: /chem1/finn5.i/03AUG10.b/MB0803.d

Date : 03-AUG-2010 19:10

Client ID: MB0803

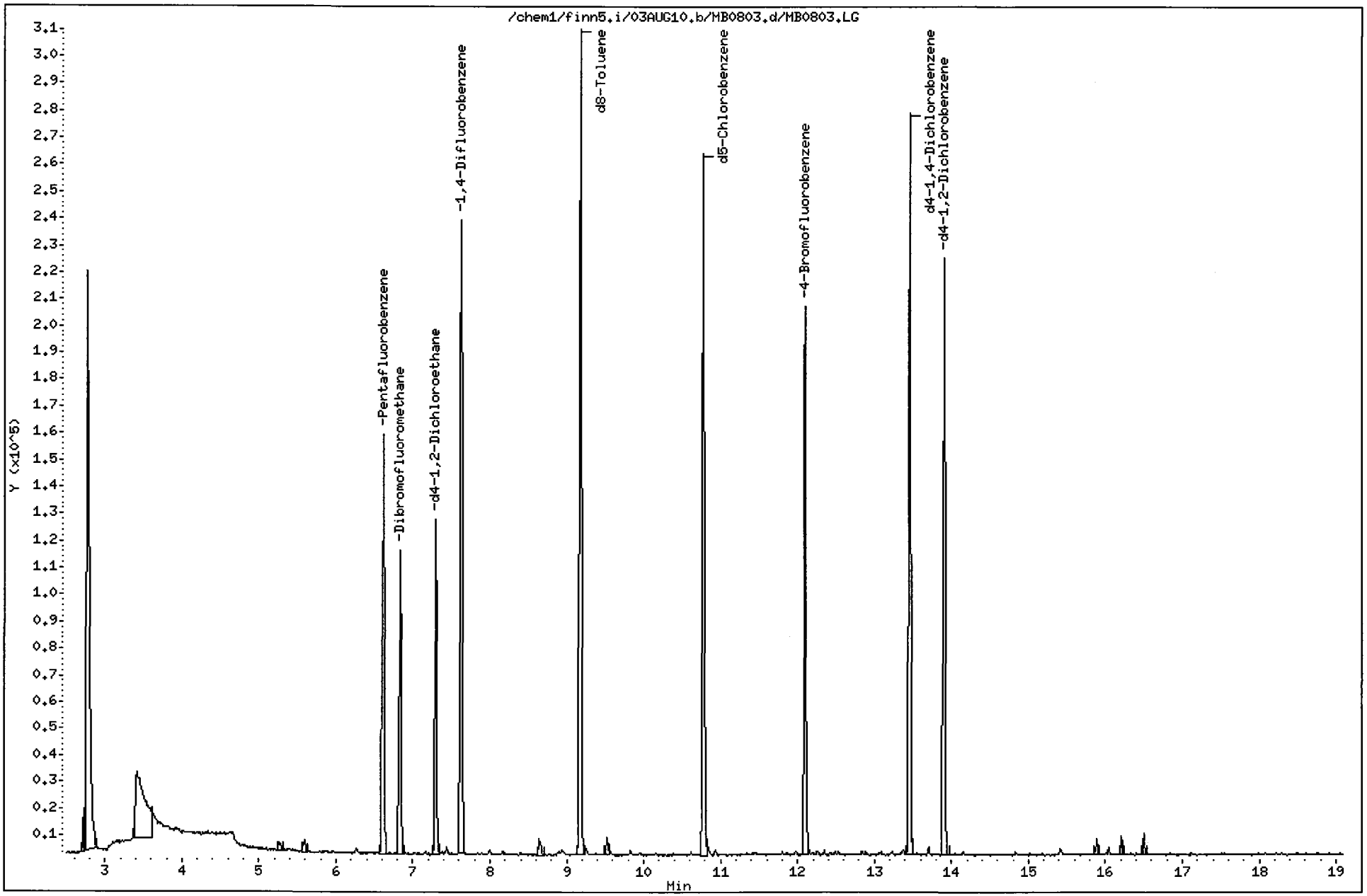
Sample Info: MB0803,5,5,0

Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/03AUG10.b/RG51D.d
Lab Smp Id: RG51D Client Smp ID: PSB12-8-10-072810
Inj Date : 03-AUG-2010 23:49
Operator : PB Inst ID: finn5.i
Smp Info : RG51D,5,7.108,0
Misc Info : 10-18186
Comment :
Method : /chem1/finn5.i/03AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:40 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	7.10800	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	4.673	4.683	(0.706)	37501	64.0775	45.074
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	6.281	6.281	(0.948)	2410	3.65971	2.574
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.623	6.633	(1.000)	104577	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.834	6.844	(1.032)	67896	54.4734	38.318 (Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.296	7.316	(1.102)	82596	60.5611	42.601
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	Compound Not Detected.					
*	34 1,4-Difluorobenzene	114	7.628	7.638	(1.000)	154963	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.176	9.196	(1.203)	172434	50.6419	35.623
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.784	10.794	(1.000)	129225	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.100	12.110	(1.122)	67792	44.8251	31.531
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
	65 Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
	66 N-Propyl Benzene	91	Compound Not Detected.					
	67 Bromobenzene	156	Compound Not Detected.					
	68 1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
	69 2-Chloro Toluene	91	Compound Not Detected.					
	70 4-Chloro Toluene	91	Compound Not Detected.					
	71 T-Butyl Benzene	119	Compound Not Detected.					
	72 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
	73 S-Butyl Benzene	105	Compound Not Detected.					
	74 4-Isopropyl Toluene	119	Compound Not Detected.					
	75 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	76 d4-1,4-Dichlorobenzene	152	13.457	13.467	(1.000)	58507	50.0000	
	77 1,4-Dichlorobenzene	146	Compound Not Detected.					
	78 N-Butyl Benzene	91	Compound Not Detected.					
$	79 d4-1,2-Dichlorobenzene	152	13.909	13.919	(1.034)	55427	52.0831	36.637
	80 1,2-Dichlorobenzene	146	Compound Not Detected.					
	81 1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
	82 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
	83 Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
	84 Naphthalene	128	Compound Not Detected.					
	85 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: RG51D.d
Lab Smp Id: RG51D
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18186

Calibration Date: 03-AUG-2010
Calibration Time: 17:32
Client Smp ID: PSB12-8-10-072810
Level: LOW
Sample Type: Soil

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	104577	-20.24
34 1,4-Difluorobenze	191559	95780	383118	154963	-19.10
52 d5-Chlorobenzene	161199	80600	322398	129225	-19.84
76 d4-1,4-Dichlorobe	88279	44140	176558	58507	-33.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.62	-0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.63	-0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.78	-0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.46	-0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider
Client SDG: RG51
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: RG51D
Client Smp ID: PSB12-8-10-072810
Level: LOW
Operator: PB
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: voa.sub
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18186

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	54.473	108.95	30-160
$ 31 d4-1,2-Dichloroeth	50.000	60.561	121.12	75-152
$ 43 d8-Toluene	50.000	50.642	101.28	82-115
$ 62 4-Bromofluorobenze	50.000	44.825	89.65	64-120
$ 79 d4-1,2-Dichloroben	50.000	52.083	104.17	80-120

Data File: /chem1/finn5.i/03AUG10.b/RG51D.d

Date : 03-AUG-2010 23:49

Client ID: PSB12-8-10-072810

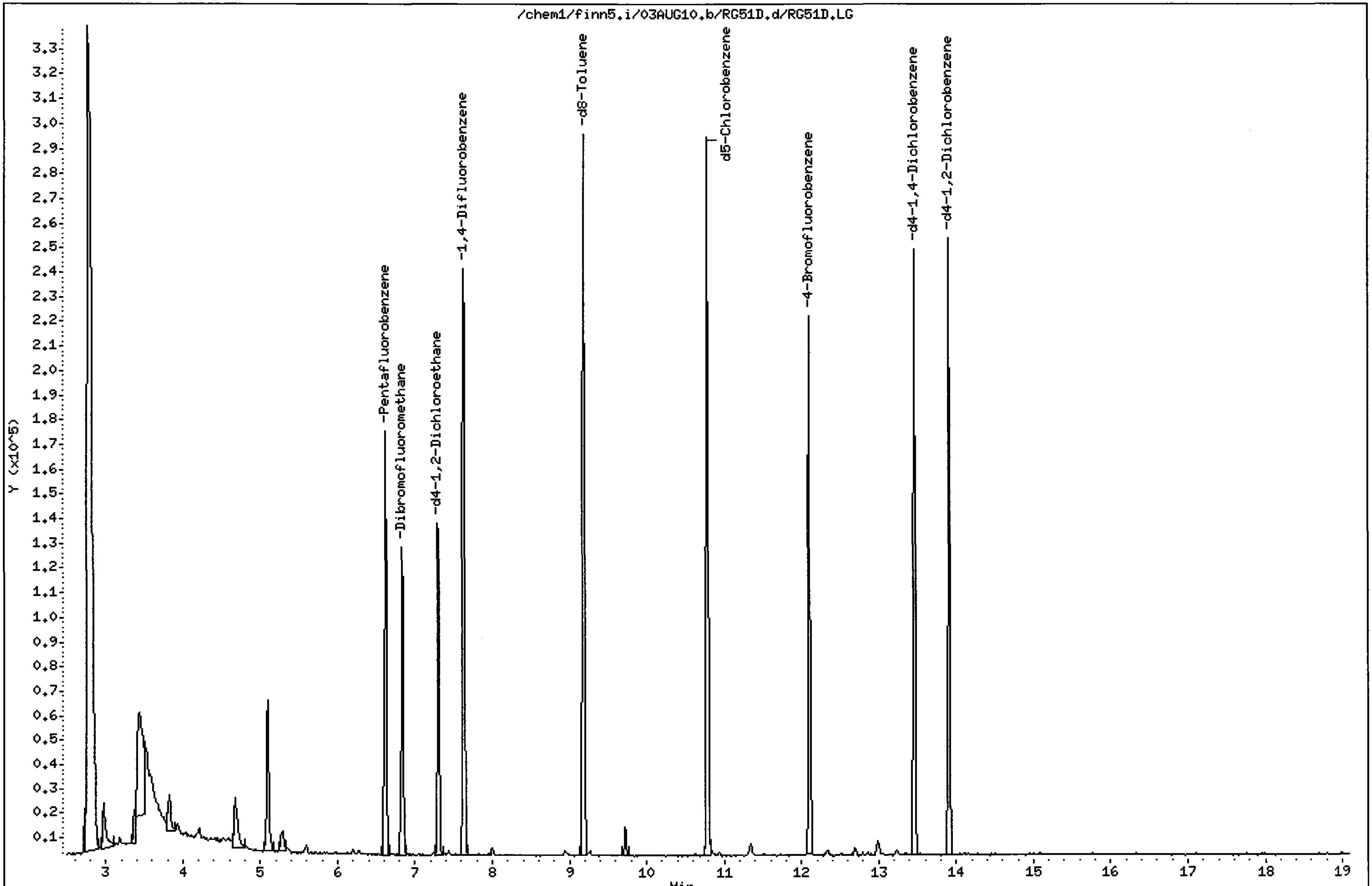
Sample Info: RG51D,5,7,108,0

Column phase: Rtx502.2

Instrument: finn5.i

Operator: PB

Column diameter: 0.18



Analytical Resources, Inc.

8260C

Data file : /chem1/finn5.i/03AUG10.b/RG51E.d
Lab Smp Id: RG51E Client Smp ID: PSB12-8-10-072810-D
Inj Date : 04-AUG-2010 00:15
Operator : PB Inst ID: finn5.i
Smp Info : RG51E,5,6.627,0
Misc Info : 10-18187
Comment :
Method : /chem1/finn5.i/03AUG10.b/s8260b.m
Meth Date : 05-Aug-2010 16:40 patrickb Quant Type: ISTD
Cal Date : 23-JUL-2010 17:18 Cal File: 2000723.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: voa.sub
Target Version: 3.50
Processing Host: cserv3

Concentration Formula: Amt * DF * Pv * 1 / (Sa * ((100 - M) / 100)) * CpndVaria

Name	Value	Description
DF	1.00000	Dilution Factor
Pv	5.00000	Purge Volume
Sa	6.62700	Sample Amount
M	0.00000	Moisture (%)

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	FINAL (ug/Kg)
1 Dichlorodifluoromethane	85	Compound Not Detected.					
2 Chloromethane	50	Compound Not Detected.					
3 Vinyl Chloride	62	Compound Not Detected.					
4 Bromomethane	94	Compound Not Detected.					
5 Chloroethane	64	Compound Not Detected.					
6 Trichlorofluoromethane	101	Compound Not Detected.					
7 Acrolein	56	Compound Not Detected.					
8 112Trichloro122Trifluoroethane	101	Compound Not Detected.					
9 Acetone	43	4.673	4.683	(0.706)	50576	86.3938	65.183
10 1,1-Dichloroethene	96	Compound Not Detected.					
11 Bromoethane	108	Compound Not Detected.					
12 Iodomethane	142	Compound Not Detected.					
13 Methylene Chloride	84	Compound Not Detected.					
14 Acrylonitrile	53	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
	16 Methyl tert-Butyl Ether	73	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	17 Trans-1,2-Dichloroethene	96	Compound Not Detected.					
	18 Vinyl Acetate	43	Compound Not Detected.					
	19 1,1-Dichloroethane	63	Compound Not Detected.					
	20 2-Butanone	43	6.281	6.281	(0.948)	2444	3.71028	2.799
	21 2,2-Dichloropropane	77	Compound Not Detected.					
	22 Cis-1,2-Dichloroethene	96	Compound Not Detected.					
*	23 Pentafluorobenzene	168	6.623	6.633	(1.000)	104607	50.0000	
	24 Chloroform	83	Compound Not Detected.					
	26 Bromochloromethane	128	Compound Not Detected.					
$	25 Dibromofluoromethane	111	6.844	6.844	(1.033)	71763	57.5594	43.428(Q)
	27 1,1,1-Trichloroethane	97	Compound Not Detected.					
	29 1,1-Dichloropropene	75	Compound Not Detected.					
	30 Carbon Tetrachloride	117	Compound Not Detected.					
$	31 d4-1,2-Dichloroethane	65	7.306	7.316	(1.103)	87167	63.8944	48.208
	32 1,2-Dichloroethane	62	Compound Not Detected.					
	33 Benzene	78	Compound Not Detected.					
*	34 1,4-Difluorobenzene	114	7.628	7.638	(1.000)	157265	50.0000	
	35 Trichloroethene	95	Compound Not Detected.					
	36 1,2-Dichloropropane	63	Compound Not Detected.					
	37 Bromodichloromethane	83	Compound Not Detected.					
	39 Dibromomethane	93	Compound Not Detected.					
	40 2-Chloroethyl Vinyl Ether	63	Compound Not Detected.					
	41 4-Methyl-2-Pentanone	58	Compound Not Detected.					
	42 Cis 1,3-dichloropropene	75	Compound Not Detected.					
$	43 d8-Toluene	98	9.186	9.196	(1.204)	179841	52.0442	39.267
	44 Toluene	92	Compound Not Detected.					
	45 Trans 1,3-Dichloropropene	75	Compound Not Detected.					
	46 2-Hexanone	43	Compound Not Detected.					
	47 1,1,2-Trichloroethane	97	Compound Not Detected.					
	48 1,3-Dichloropropane	76	Compound Not Detected.					
	49 Tetrachloroethene	166	Compound Not Detected.					
	50 Chlorodibromomethane	129	Compound Not Detected.					
	51 1,2-Dibromoethane	107	Compound Not Detected.					
*	52 d5-Chlorobenzene	117	10.784	10.794	(1.000)	135951	50.0000	
	53 Chlorobenzene	112	Compound Not Detected.					
	54 Ethyl Benzene	91	Compound Not Detected.					
	55 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
	56 m,p-xylene	106	Compound Not Detected.					
	57 o-Xylene	106	Compound Not Detected.					
	58 Styrene	104	Compound Not Detected.					
	59 Isopropyl Benzene	105	Compound Not Detected.					
	60 Bromoform	173	Compound Not Detected.					
	61 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
$	62 4-Bromofluorobenzene	95	12.100	12.110	(1.122)	71351	44.8442	33.834
	63 1,2,3-Trichloropropane	110	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/Kg)	CONCENTRATIONS FINAL (ug/Kg)
65	Trans-1,4-Dichloro 2-Butene	53	Compound Not Detected.					
66	N-Propyl Benzene	91	Compound Not Detected.					
67	Bromobenzene	156	Compound Not Detected.					
68	1,3,5-Trimethyl Benzene	105	Compound Not Detected.					
69	2-Chloro Toluene	91	Compound Not Detected.					
70	4-Chloro Toluene	91	Compound Not Detected.					
71	T-Butyl Benzene	119	Compound Not Detected.					
72	1,2,4-Trimethylbenzene	105	Compound Not Detected.					
73	S-Butyl Benzene	105	Compound Not Detected.					
74	4-Isopropyl Toluene	119	Compound Not Detected.					
75	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 76	d4-1,4-Dichlorobenzene	152	13.467	13.467	(1.000)	61970	50.0000	
77	1,4-Dichlorobenzene	146	Compound Not Detected.					
78	N-Butyl Benzene	91	Compound Not Detected.					
$ 79	d4-1,2-Dichlorobenzene	152	13.909	13.919	(1.033)	59473	52.7621	39.808(Q)
80	1,2-Dichlorobenzene	146	Compound Not Detected.					
81	1,2-Dibromo 3-Chloropropane	75	Compound Not Detected.					
82	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
83	Hexachloro 1,3-Butadiene	225	Compound Not Detected.					
84	Naphthalene	128	Compound Not Detected.					
85	1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Analytical Resources, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: finn5.i
Lab File ID: RG51E.d
Lab Smp Id: RG51E
Analysis Type: VOA
Quant Type: ISTD
Operator: PB
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18187

Calibration Date: 03-AUG-2010
Calibration Time: 17:32
Client Smp ID: PSB12-8-10-072810-D
Level: LOW
Sample Type: Soil

Test Mode:
Use Initial Calibration Level 5.
If Continuing Cal. use Initial Cal. Level 5

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	131115	65558	262230	104607	-20.22
34 1,4-Difluorobenze	191559	95780	383118	157265	-17.90
52 d5-Chlorobenzene	161199	80600	322398	135951	-15.66
76 d4-1,4-Dichlorobe	88279	44140	176558	61970	-29.80

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
23 Pentafluorobenzen	6.63	6.13	7.13	6.62	-0.15
34 1,4-Difluorobenze	7.64	7.14	8.14	7.63	-0.13
52 d5-Chlorobenzene	10.79	10.29	11.29	10.78	-0.09
76 d4-1,4-Dichlorobe	13.47	12.97	13.97	13.47	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Analytical Resources, Inc.

RECOVERY REPORT

Client Name: Floyd/Snider
Sample Matrix: SOLID
Lab Smp Id: RG51E
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: voa.sub
Method File: /chem1/finn5.i/03AUG10.b/s8260b.m
Misc Info: 10-18187

Client SDG: RG51
Fraction: VOA
Client Smp ID: PSB12-8-10-072810-D
Operator: PB
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	AMOUNT ADDED ug/Kg	AMOUNT RECOVERED ug/Kg	% RECOVERED	LIMITS
$ 25 Dibromofluorometha	50.000	57.559	115.12	30-160
$ 31 d4-1,2-Dichloroeth	50.000	63.894	127.79	75-152
$ 43 d8-Toluene	50.000	52.044	104.09	82-115
$ 62 4-Bromofluorobenze	50.000	44.844	89.69	64-120
$ 79 d4-1,2-Dichloroben	50.000	52.762	105.52	80-120

Data File: /chem1/finn5.i/03AUG10.b/RG51E.d
Date : 04-AUG-2010 00:15
Client ID: PSB12-8-10-072810-D
Sample Info: RG51E,5,6.627,0

Instrument: finn5.i
Operator: PB
Column phase: Rtx502.2
Column diameter: 0.18