Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

Memorandum

To: File
By: Jack Miano, Chief, Site Management Section
Date: August 31, 2015
Subject: United Shoe Machine, Beverly, Cummings Center, Future Behaviors Therapy Center, Building 100, Suite 157-J
MassDEP Release Tracking Number 3-0000610

Summary

A visual evaluation of the Indoor Air Sample, Air Phase Petroleum (APH) Gas Chromatography/Mass Spectrometry Data chromatograms for the Futures Behaviors Therapy Center was conducted. The goal of this evaluation was to determine whether the APH range petroleum hydrocarbons measured in the Future Behaviors Therapy Center, at Building 100, Suite 157-J, Cummings Center, are likely the result of vapor intrusion from the sub-surface of Building 100. The APH chromatograms indicate that the petroleum vapors present in the indoor air samples are similar to the petroleum vapors present in the sub-slab soil gas samples collected beneath the floor. The chromatograms also show that the APH petroleum fraction concentrations are not the results of one (or a few) non-petroleum compounds such as might be present in a non-petroleum cleaning product (such as limonene), or a fragrance. These results provide an additional line of evidence, supporting the likelihood of a complete vapor intrusion pathway.

Soil Gas Samples Visual Evaluation

The visual evaluation of the soil gas chromatograms, from samples SG-1, SG-2, SG-3 & SG-4, collected through the floor slab at Suite 157-J, shows the presence of likely petroleum compounds within the C5-C8 elution range, and the presence of an unresolved group of petroleum peaks within the C9-C12 aliphatic elution range, which is also approximately consistent with the C9-C10 aromatic elution range. Soil gas samples S-1 and S-4 show a significant and clear presence of petroleum vapor in the soil gas. Soil gas sample SG-3 shows lesser amounts of petroleum compounds, and SG-2 shows, visually, very little evidence of petroleum compounds.

Soil gas sample SG-4 contains what appears to be a petroleum vapor mixture with heavier compounds than the petroleum vapor mixture present in soil gas sample SG-1. This difference

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MassDEP Website: www.mass.gov/dep

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may indicate that there is a combination of a lighter and heavier petroleum mixture, such as a gasoline and a diesel fuel in the subsurface.

Indoor Air Samples Visual Evaluation

The indoor air sample chromatograms, from samples collected in 2012, 2014 and 2015, in the Future Behaviors Therapy Center, at Building 100, Suite 157-J, Cummings Center, all contained some amount of APH fraction vapors. The APH range containing the highest levels of petroleum vapors in the soil gas is the C9-C12 aliphatic APH fraction. In the Futures Behaviors Therapy Center samples the highest levels are also found in the C9-C12 aliphatic APH fraction.

Outdoor Air Sample Visual Evaluation

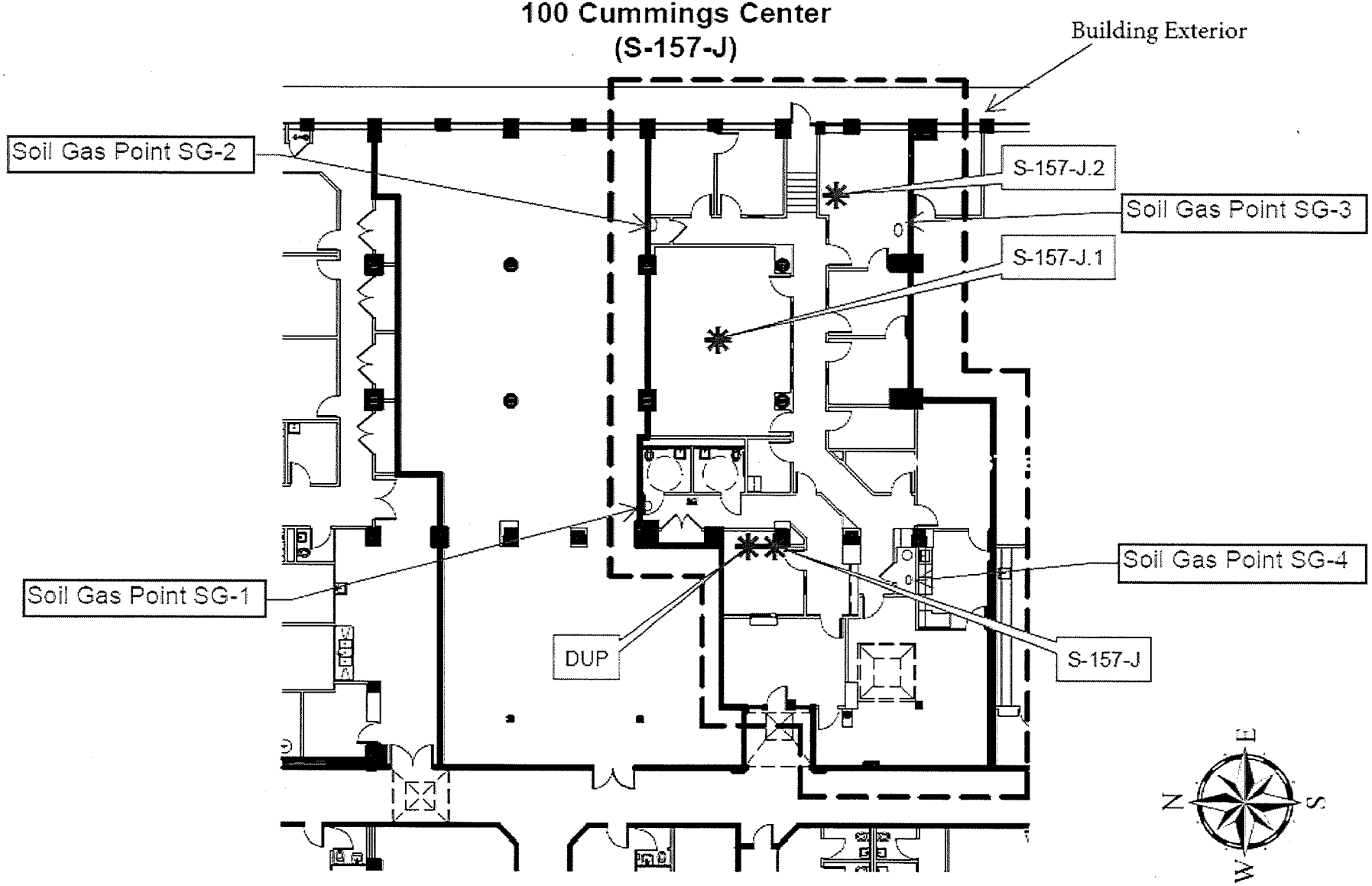
The outdoor control sample collected in March 2015 did not contain APH range petroleum hydrocarbons.

Enclosed:

Copies of the GC/MS Chromatograph Images evaluated during the visual inspection. Labels were added to indicate the petroleum peaks, and the APH fraction concentrations measured. The APH samples were analyzed by Alpha Analytical Laboratories.

Figure 5
Soil Gas and Indoor Air Sampling Locations

Futures Behavior Therapy Center
100 Cummings Center
(S-157-J)



GEOSPHERE
ENVIRONMENTAL MANAGEMENT INC.
51 Portsmouth Ave. - Exeter, NH 03833 - (603) 773-0075

Project Number: 12201
Client: Cummings

Created By: EF Date: 05/22/14
Checked By: DN Date: 05/22/14

0 5' 10' 20' 40'

Reference:
Cummings Properties,
Engineering Plans. 05/27/2009

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 16 2015, 02:16 pm

Work Group: WG767580 for Department: 3 GC/MS

Created: 11-MAR-15 Due: Operator: ry

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Loca
L1504264-03	SV-3	S	APH-10	SOIL_VAPOR	DONE	U	0405	0317	SO	Can-
L1504425-01	OUTDOOR CONTROL	S	APH-10	AIR	DONE	U	0407	0317	SO	Can-
L1504425-02	S-157-J.1	S	APH-10	AIR	DONE	U	0407	0317	SO	Can-
L1504425-03	S-157-J.2	S	APH-10	AIR	DONE	U	0407	0317	SO	Can-
L1504425-04	S-157-J	S	APH-10	AIR	DONE	U	0407	0317	SO	Can-
L1504425-05	DUPLICATE	S	APH-10	AIR	DONE	U	0407	0317	SO	Can-
L1504425-06	BLANK	S	APH-10	AIR	DONE	U	0405	0317	SO	Can-
L1504425-07	SG-1	S	APH-10	SOIL_VAPOR	DONE	U	0405	0317	SO	Can-
L1504425-08	SG-2	S	APH-10	SOIL_VAPOR	DONE	U	0405	0317	SO	Can-
L1504425-09	SG-3	S	APH-10	SOIL_VAPOR	DONE	U	0405	0317	SO	Can-
L1504425-10	SG-4	S	APH-10	SOIL_VAPOR	DONE	U	0405	0317	SO	Can-
L1504425-11	SG BLANK	S	APH-10	SOIL_VAPOR	DONE	U	0405	0317	SO	Can-
L1504467-01	CAN 931 SHELF 41	S	APH-10	AIR	DONE	I	0409	0318	NC	Can-
L1504467-02	CAN 1894 SHELF 42	S	APH-10	AIR	DONE	I	0409	0318	NC	Can-
L1504546-01	CAN 1824 SHELF 56	S	APH-10	AIR	DONE	I	0410	0318	NC	Can-
L1504546-02	CAN 1641 SHELF 57	S	APH-10	AIR	DONE	I	0410	0318	NC	Can-
L1504569-01	CAN 151B SHELF 7	S	APH-10	AIR	DONE	I	0409	0318	NC	Can-
WG767580-1	MS BFB Tune Standard	S	APH-10	AIR	DONE	U				
WG767580-1	MS BFB Tune Standard	S	APH-10	SOIL_VAPOR	DONE	U				
WG767580-2	Continuing Calibrati	S	APH-10	AIR	DONE	U				
WG767580-2	Continuing Calibrati	S	APH-10	SOIL_VAPOR	DONE	U				
WG767580-3	Laboratory Control S	S	APH-10	AIR	DONE	U				
WG767580-3	Laboratory Control S	S	APH-10	SOIL_VAPOR	DONE	U				
WG767580-4	Laboratory Method Bl	S	APH-10	AIR	DONE	U				
WG767580-4	Laboratory Method Bl	S	APH-10	SOIL_VAPOR	DONE	U				
WG767580-5	Duplicate Sample	S	APH-10	AIR	DONE	U				
WG767580-5	Duplicate Sample	S	APH-10	SOIL_VAPOR	DONE	U				

Comments:

WG767580-5 L1504425-07

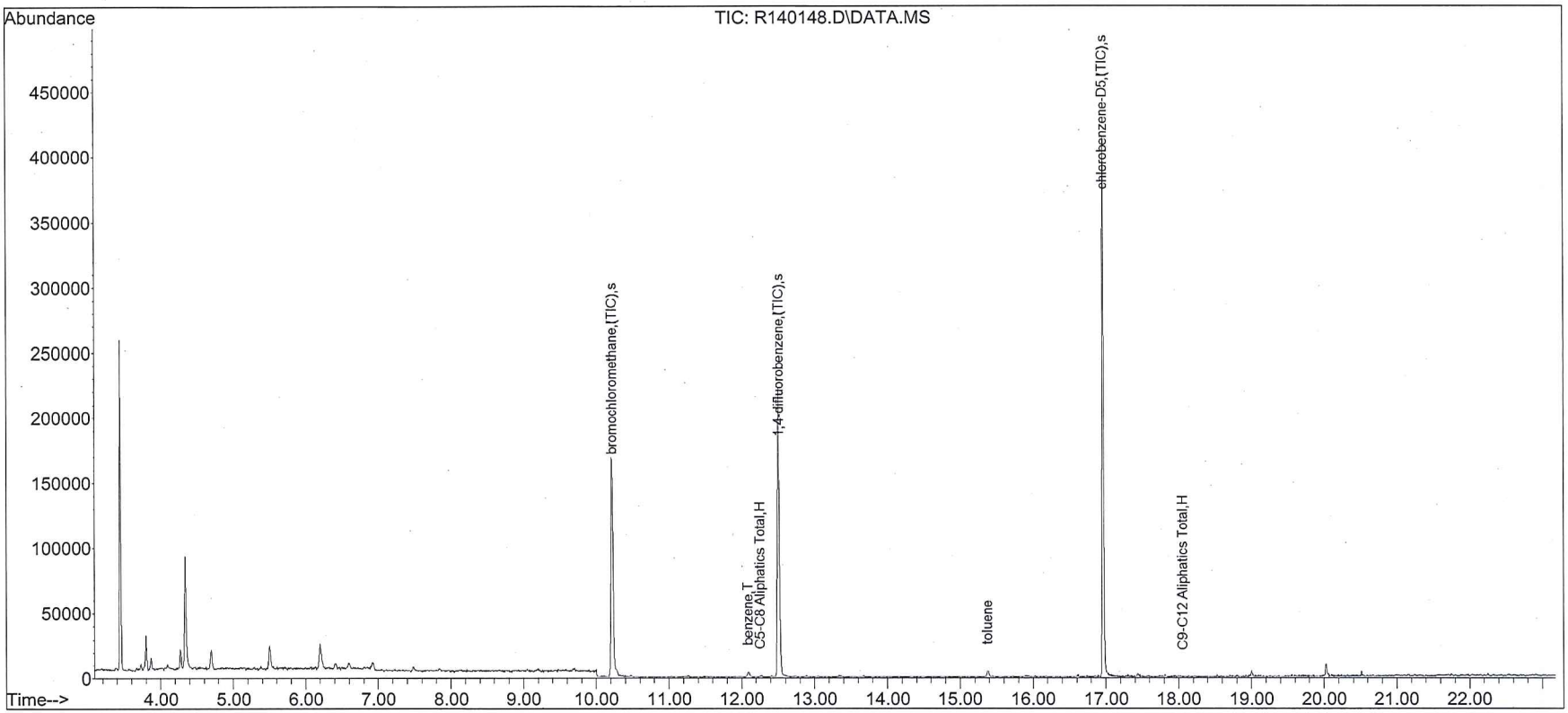
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140148.D
Acq On : 11 Mar 2015 8:51 pm
Operator : AIRPIANO1:RY
Sample : L1504425-01,3,250,250
Misc : WG767580,ICAL10563
ALS Vial : 3 Sample Multiplier: 1

Building 100 OUTDOOR CONTROL MAR 12 2015

Quant Time: Mar 12 11:10:22 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D



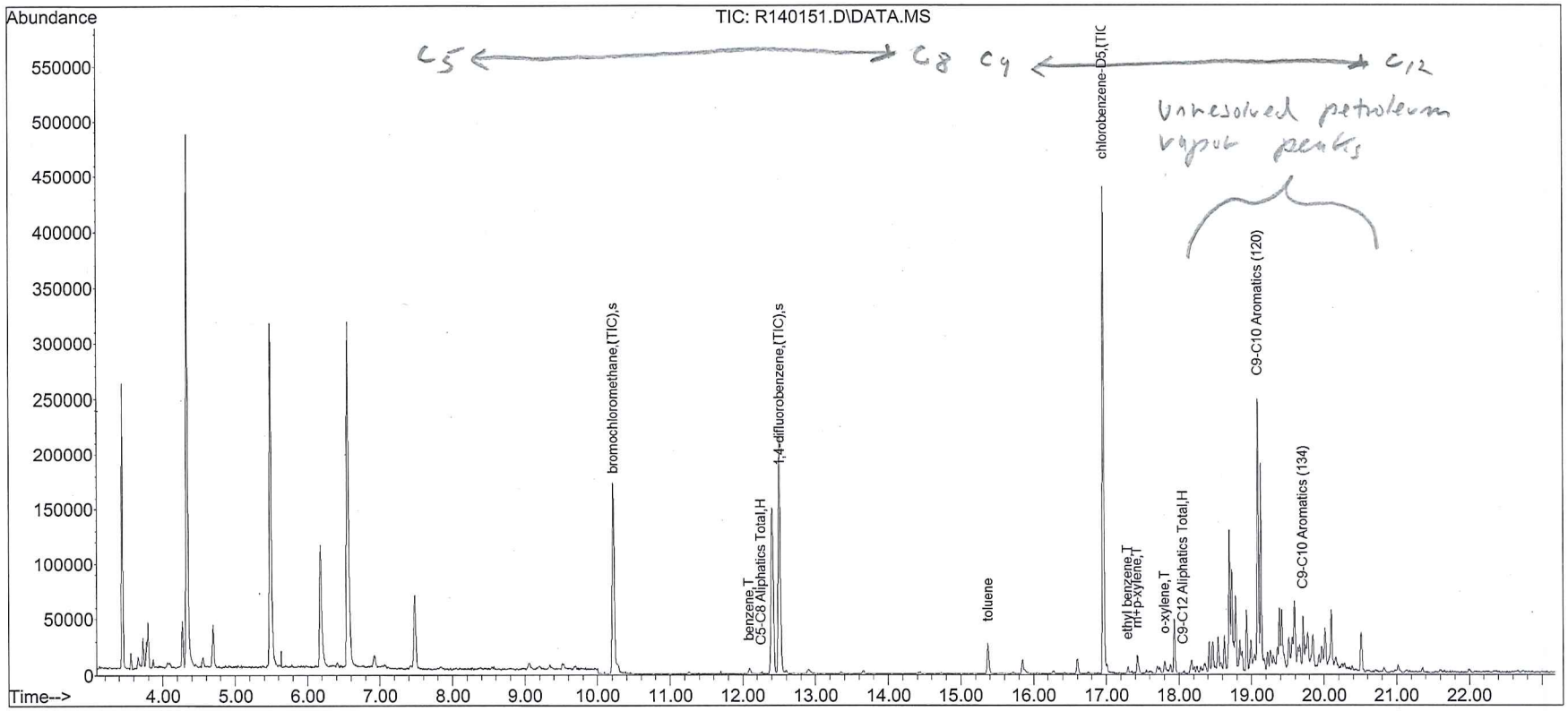
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140151.D
Acq On : 11 Mar 2015 10:27 pm
Operator : AIRPIANO1:RY
Sample : L1504425-04,3,250,250 FUTURES BEHAVIOR THERAPY CENTER S-157-J MAR 12 2015
Misc : WG767580,ICAL10563
ALS Vial : 6 Sample Multiplier: 1

C5-C8 ali 38 ug/m3
C9-C12 ali 130 ug/m3
C9-C10 aro 45 ug/m3

Quant Time: Mar 12 14:47:32 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D



Quantitation Report (QT Reviewed)

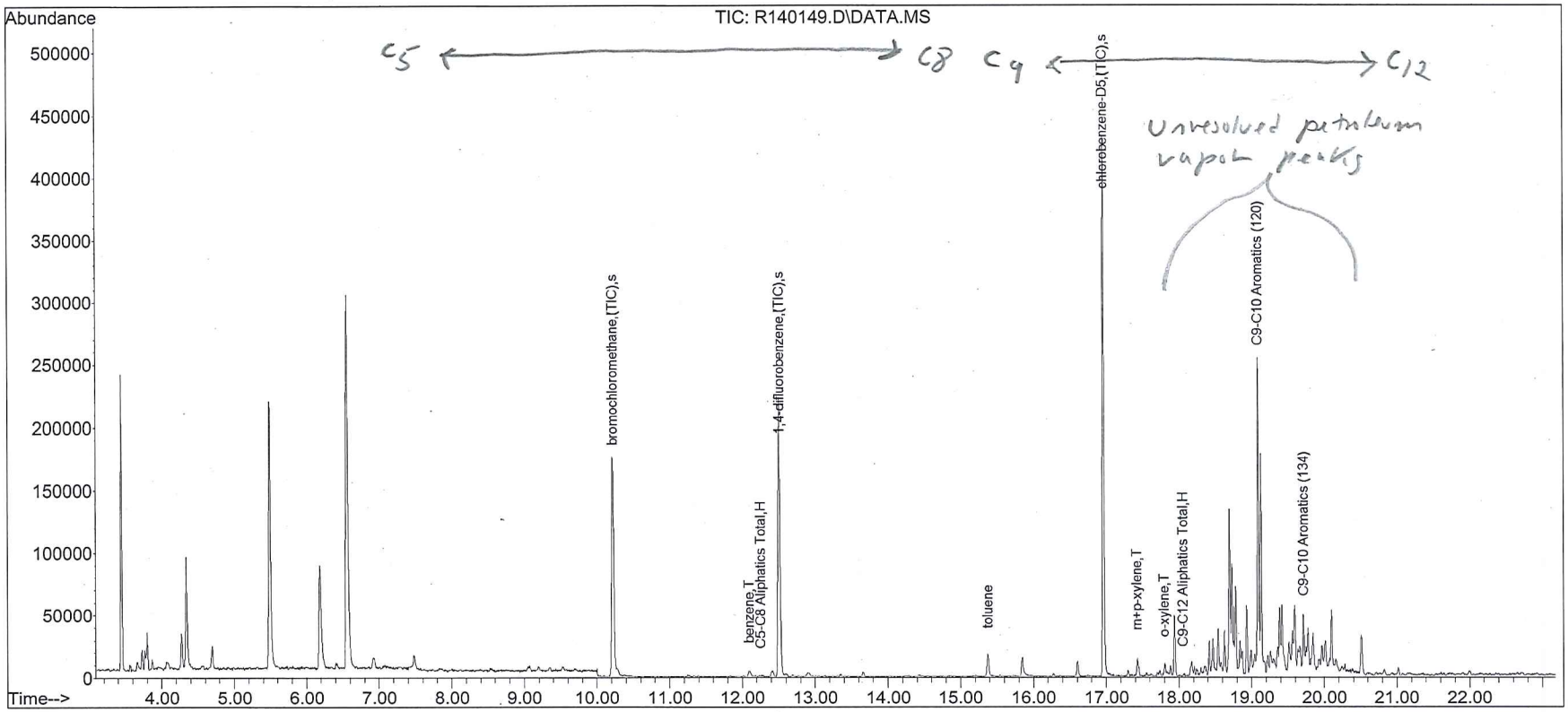
Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140149.D
Acq On : 11 Mar 2015 9:23 pm
Operator : AIRPIANO1:RY
Sample : L1504425-02,3,250,250
Misc : WG767580,ICAL10563
ALS Vial : 4 Sample Multiplier: 1

FUTURE'S BEHAVIOR THERAPY CENTER S-157-J.1 MAR 12 2015

C5-C8	<12	ug/m3
C9-C12	120	ug/m3
C9-C10	46	ug/m3

Quant Time: Mar 12 14:54:55 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D



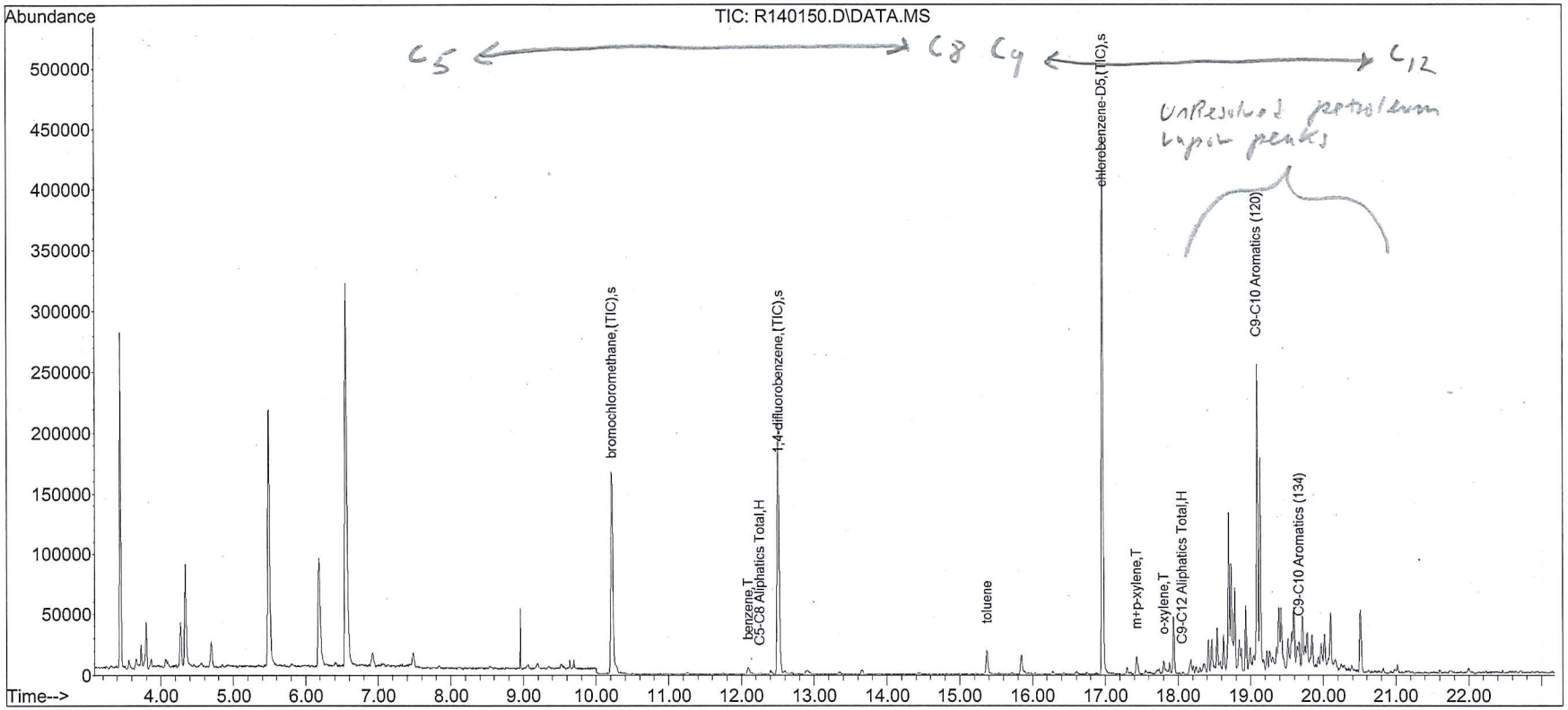
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140150.D
Acq On : 11 Mar 2015 9:55 pm
Operator : AIRPIANO1:RY
Sample : L1504425-03,3,250,250 FUTURES BEHAVIOR THERAPY CENTER S-157-J.2 MAR 12 2015
Misc : WG767580,ICAL10563
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 12 14:46:48 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D

$C_5 - C_8$	14	ug/m³
$C_9 - C_{12}$	110	ug/m³
$C_9 - C_{10}$	43	ug/m³



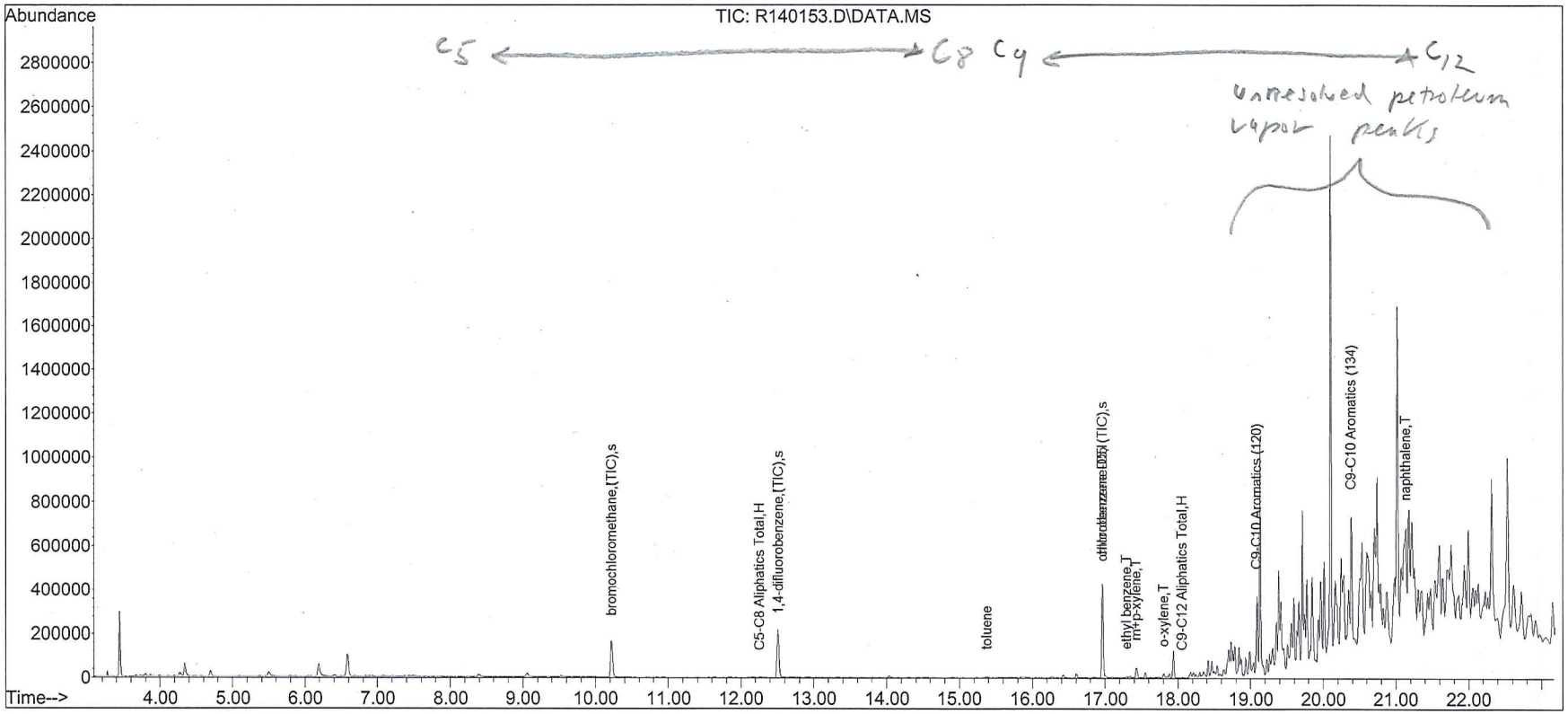
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140153.D
Acq On : 11 Mar 2015 11:31 pm
Operator : AIRPIANO1:RY
Sample : L1504425-07,3,250,250 Building 100 Soil Gas SG-1 MAR 12 2015
Misc : WG767580,ICAL10563
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 12 11:23:38 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D

C_5-C_8 ali	50	ug/m³
C_9-C_{12} ali	1900	ug/m³
C_9-C_{10} aro	340	ug/m³



APH150101.M Thu Mar 12 14:49:13 2015 Page: 2

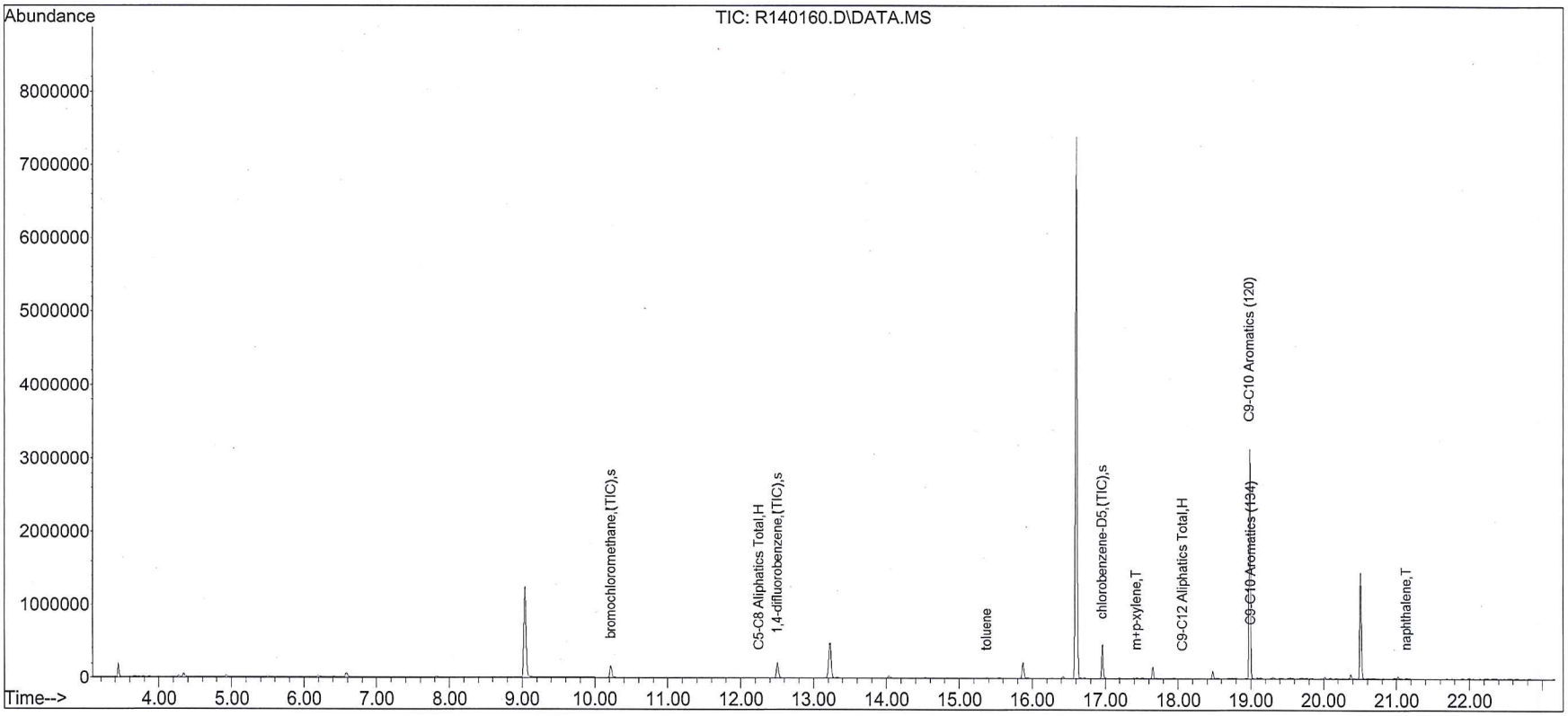
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140160.D
Acq On : 12 Mar 2015 8:45 am
Operator : AIRPIANO1:RY
Sample : L1504425-08,3,250,250 Building 100 Soil GAS SG-2 MAR 12 2015
Misc : WG767580,ICAL10563
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 12 14:53:06 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D

C_5-C_8 ali	48	ug/m^3
C_9-C_{12} ali	30	ug/m^3
C_9-C_{10} aro	<10	ug/m^3



Quantitation Report (QT Reviewed)

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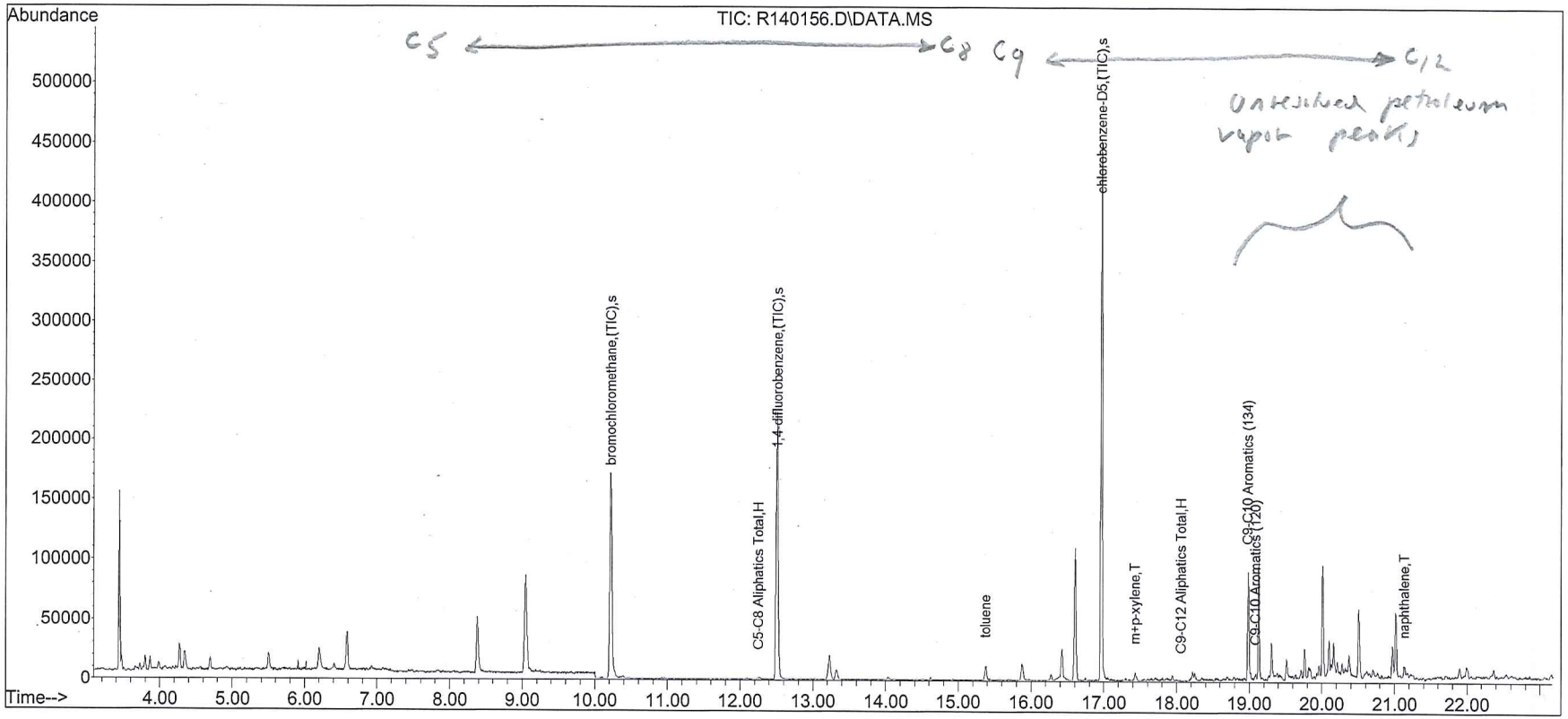
Data File : R140156.D
Acq On : 12 Mar 2015 1:08 am
Operator : AIRPIANO1:RY
Sample : L1504425-09,3,250,250 Building 100 Soil GAS SG-3 MAR 12 2015
Misc : WG767580,ICAL10563
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 12 14:50:47 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D

C5-C8 ali	15	ug/m3	
C9-C12 ali	54	ug/m3	
C9-C10 aro	<10	ug/m3	



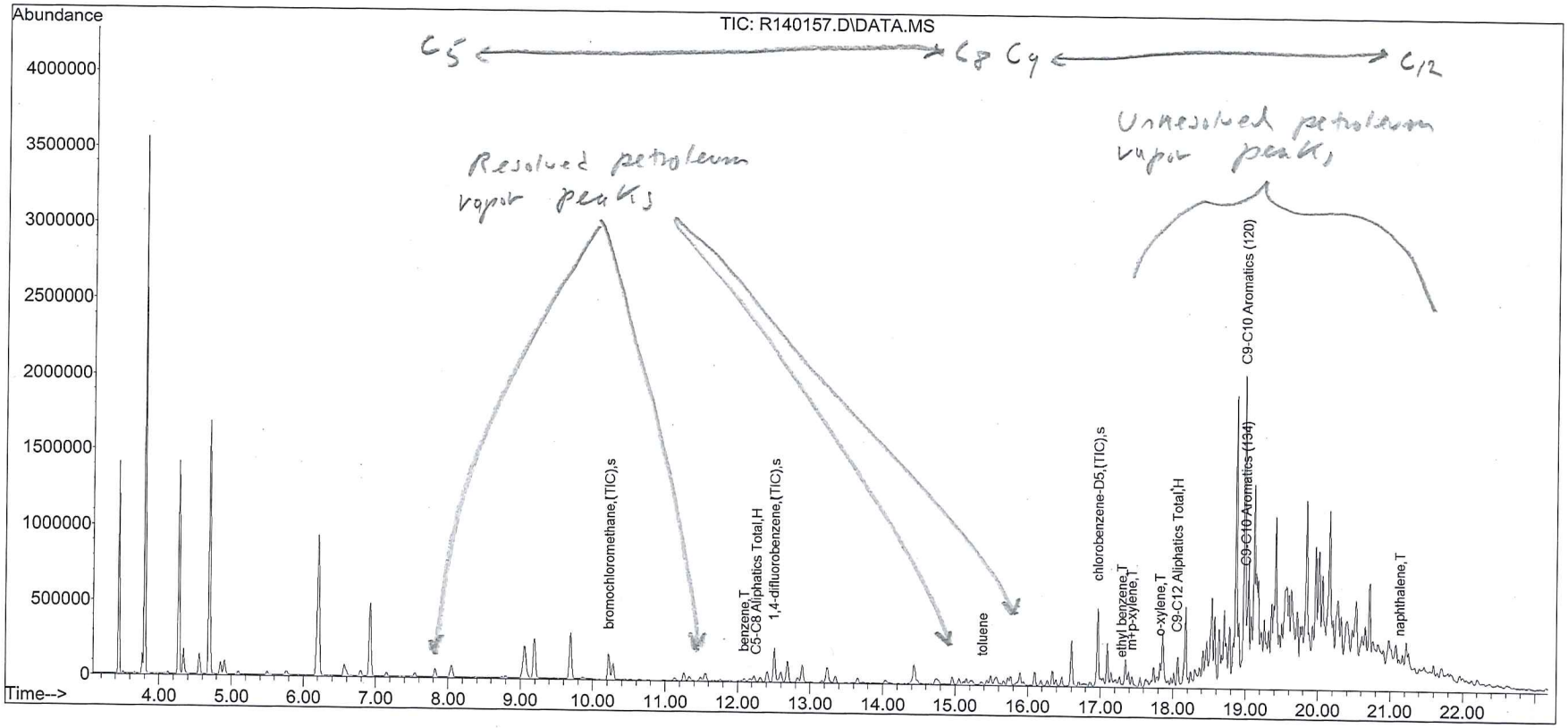
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150311A\
Data File : R140157.D
Acq On : 12 Mar 2015 1:40 am
Operator : AIRPIANO1:RY
Sample : L1504425-10,3,250,250 Building 100 Soil GAS SG-4 MAR 12 2015
Misc : WG767580,ICAL10563
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 12 14:52:01 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150311A\APH150101.M
Quant Title : APH Analysis
QLast Update : Sat Jan 03 12:13:20 2015
Response via : Initial Calibration

Sub List : APH_STD_M - .Data\AIR1\2015\150311A\R140135.D

$C_5 - C_8$ ali	1100	ug/m^3
$C_9 - C_{12}$ ali	3700	ug/m^3
$C_9 - C_{10}$ aro	11	ug/m^3



APH150101.M Thu Mar 12 14:52:14 2015

Page: 2

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 21 2015, 12:41 pm

Work Group: WG670533 for Department: 3 GC,

Created: 14-FEB-14 Due: Operator: Al

Sample	Client ID	C	Product	Matrix	St
L1403217-01	WPD	S	APH-10	AIR	DO
L1403217-02	S-157-J	S	APH-10	AIR	DO
L1403217-03	DUP	S	APH-10	AIR	DO
L1403217-04	S-157-J.1	S	APH-10	AIR	DO
L1403217-05	S-157-J.2	S	APH-10	AIR	DO
L1403258-01	CAN 343 SHELF 16	S	APH-10	AIR	DO
L1403494-01	CAN 957 SHELF 44	S	APH-10	AIR	DO
L1403494-02	CAN 977 SHELF 49	S	APH-10	AIR	DO
WG670533-1	MS BFB Tune Standard	S	APH-10	AIR	DO
WG670533-2	Continuing Calibrati	S	APH-10	AIR	DO
WG670533-3	Laboratory Control S	S	APH-10	AIR	DO
WG670533-4	Laboratory Method Bl	S	APH-10	AIR	DO
WG670533-5	Duplicate Sample	S	APH-10	AIR	DO

Comments:

WG670533-5 L1403217-05

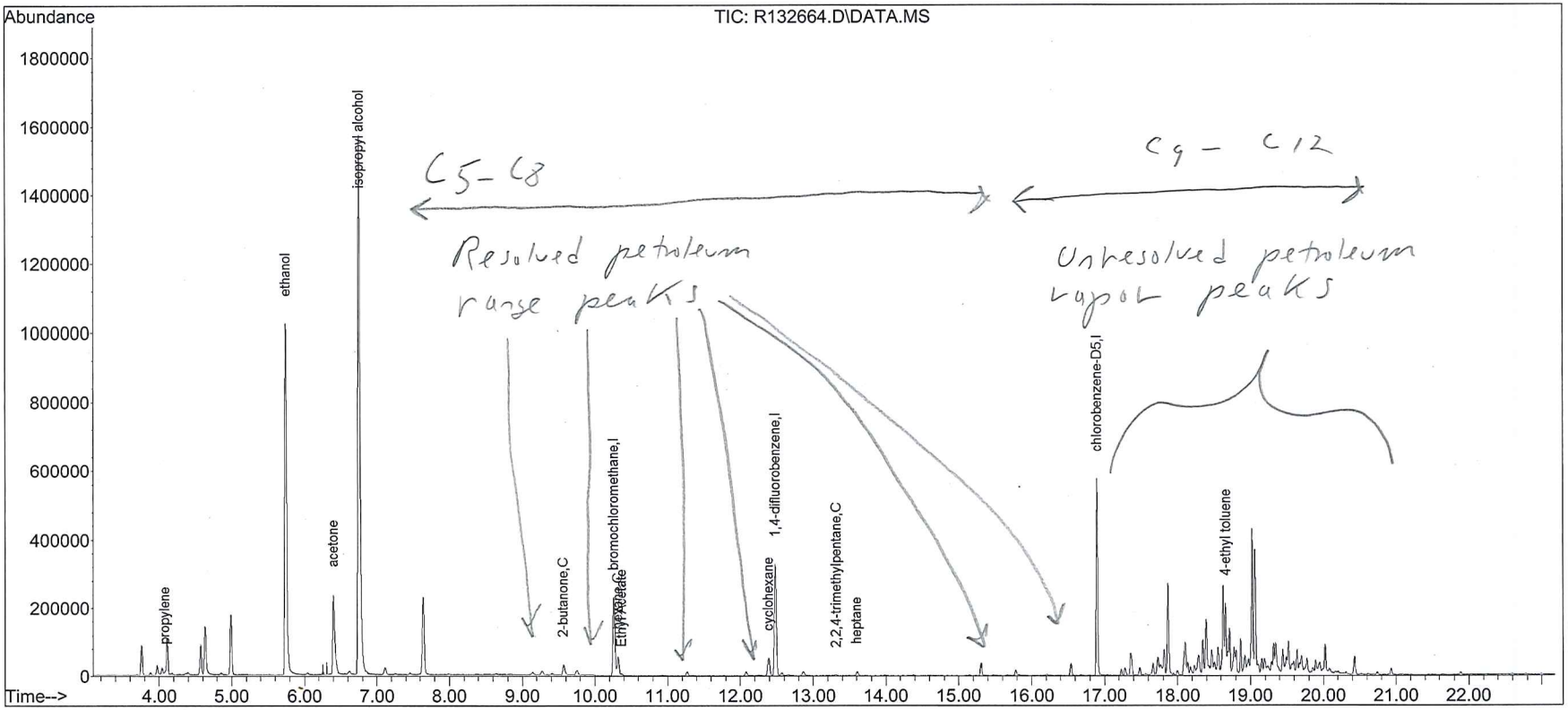
Sub List : Geo_MCP2 - .\Data\AIR1\2014\140214T\R132640.D

Data Path : O:\Forensics\Data\AIR1\2014\140214T\
Data File : R132664.D
Acq On : 15 Feb 2014 7:40 am
Operator : AIRPIANO1:MB
Sample : L1403217-02,3,250,250
Misc : WG670549,ICAL9006
ALS Vial : 6 Sample Multiplier: 1

FUTURES BEHAVIOR THERAPY CENTER
CLIENT ID S-157-J FEB 2014

Quant Time: Feb 17 21:29:55 2014
Quant Method : O:\Forensics\Data\AIR1\2014\140214T\TALL140103.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 04 09:22:25 2014
Response via : Initial Calibration

C5-C8 ali 66 ug/m3
C9-C12 ali 230 ug/m3
C9-C10 aro 61 ug/m3



TALL140103.M Mon Feb 17 21:30:06 2014 Page: 2

Sub List : Geo_MCP2 - .\Data\AIR1\2014\140214T\R132640.D

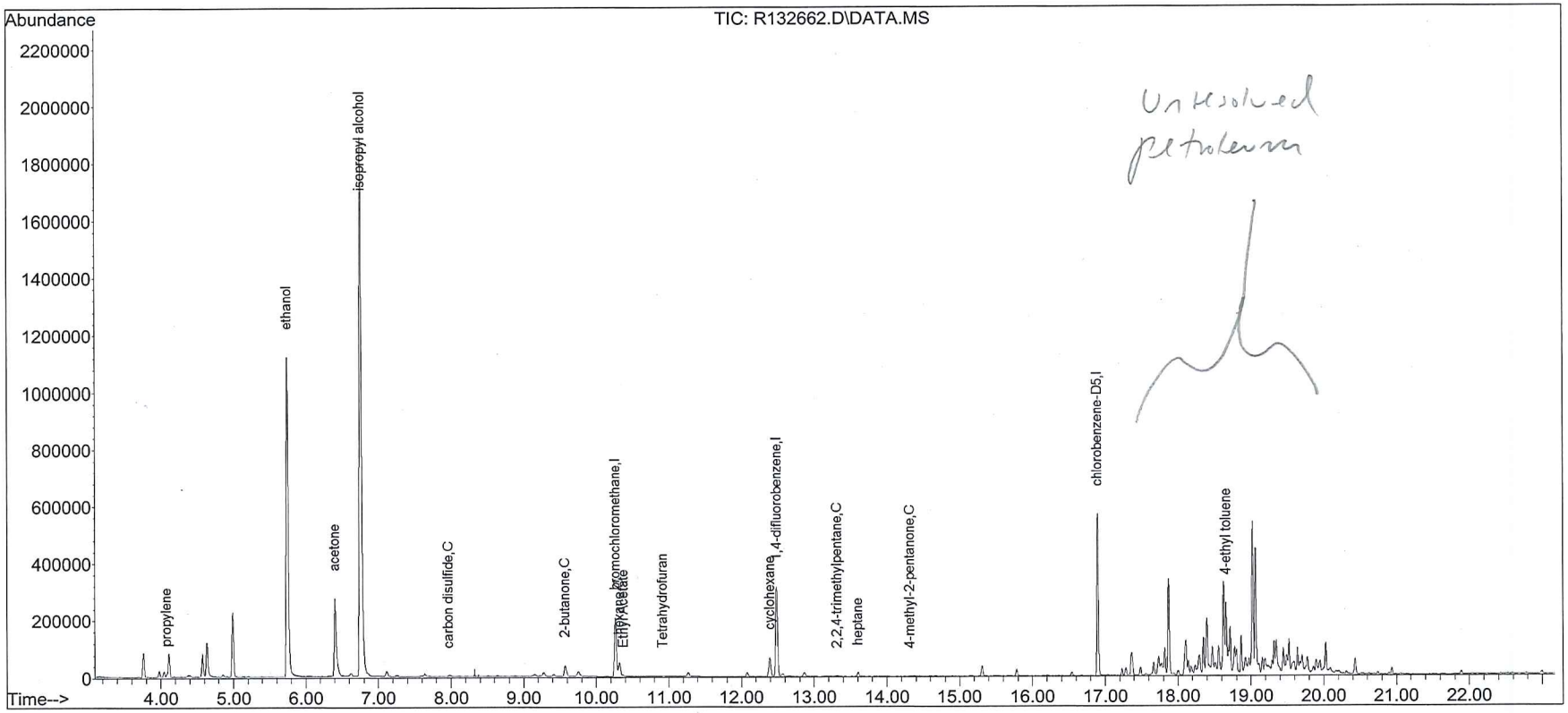
Data Path : O:\Forensics\Data\AIR1\2014\140214T\
Data File : R132662.D
Acq On : 15 Feb 2014 6:36 am
Operator : AIRPIANO1:MB
Sample : L1403217-03,3,250,250
Misc : WG670549,ICAL9006
ALS Vial : 7 Sample Multiplier: 1

FUTURES BEHAVIOR THERAPY CENTER FEB 2014

CLIENT I.D S-157-J OVP

Quant Time: Feb 17 20:00:57 2014
Quant Method : O:\Forensics\Data\AIR1\2014\140214T\TALL140103.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 04 09:22:25 2014
Response via : Initial Calibration

C_5-C_8 ali	53	ug/m^3
C_9-C_{12} ali	270	ug/m^3
C_9-C_{10} aro	72	ug/m^3



TALL140103.M Mon Feb 17 21:33:58 2014 Page: 2

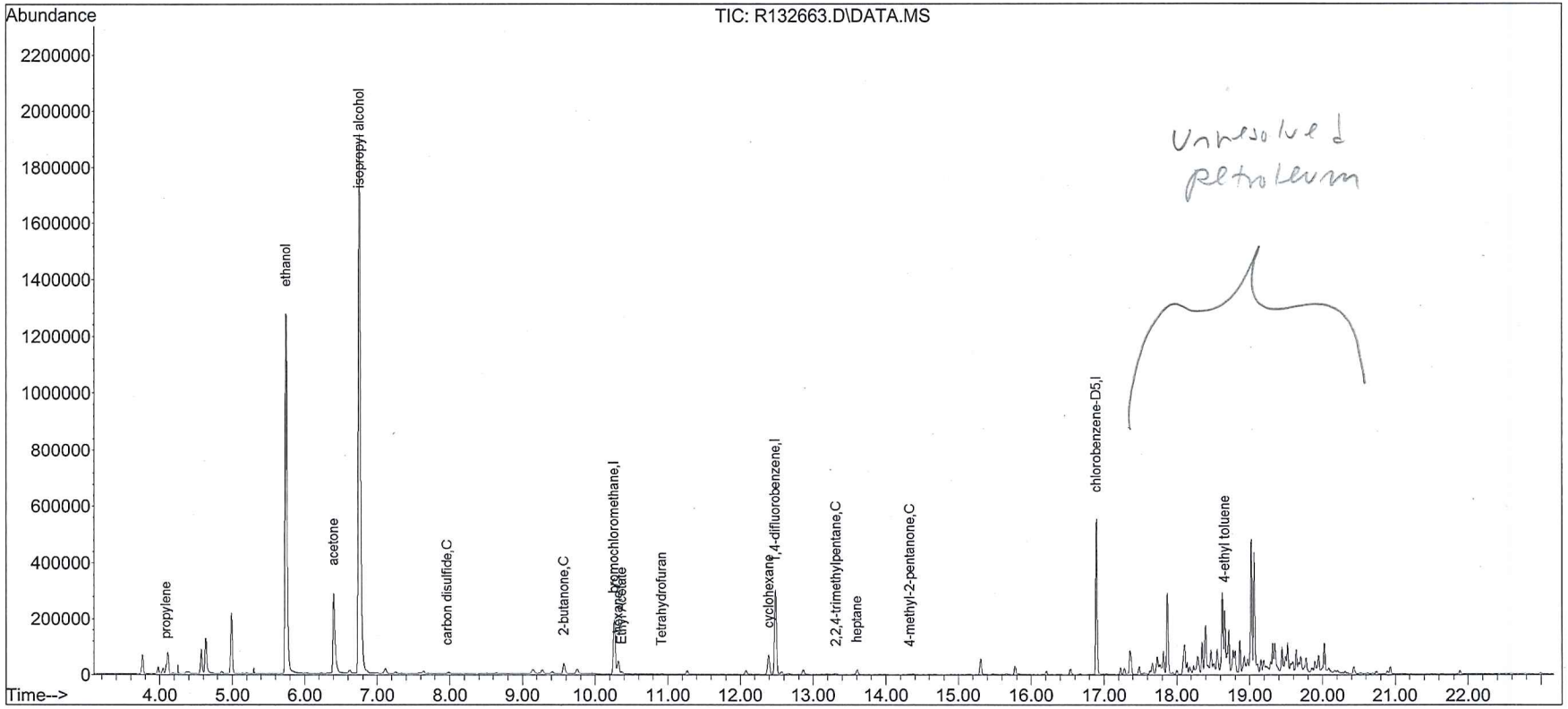
Sub List : Geo_MCP2 - .\Data\AIR1\2014\140214T\R132640.D

Data Path : O:\Forensics\Data\AIR1\2014\140214T\
Data File : R132663.D
Acq On : 15 Feb 2014 7:08 am
Operator : AIRPIANO1:MB
Sample : L1403217-04,3,250,250
Misc : WG670549,ICAL9006
ALS Vial : 8 Sample Multiplier: 1

FUTURES BEHAVIOR THERAPY CENTER FEB 2014
Client ID S-157-J.1

C5-C8 ali	58	ug/m³
C9-C12 ali	270	ug/m³
C9-C10 aro	71	ug/m³

Quant Time: Feb 17 20:02:12 2014
Quant Method : O:\Forensics\Data\AIR1\2014\140214T\TALL140103.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 04 09:22:25 2014
Response via : Initial Calibration



TALL140103.M Mon Feb 17 21:34:32 2014 Page: 2

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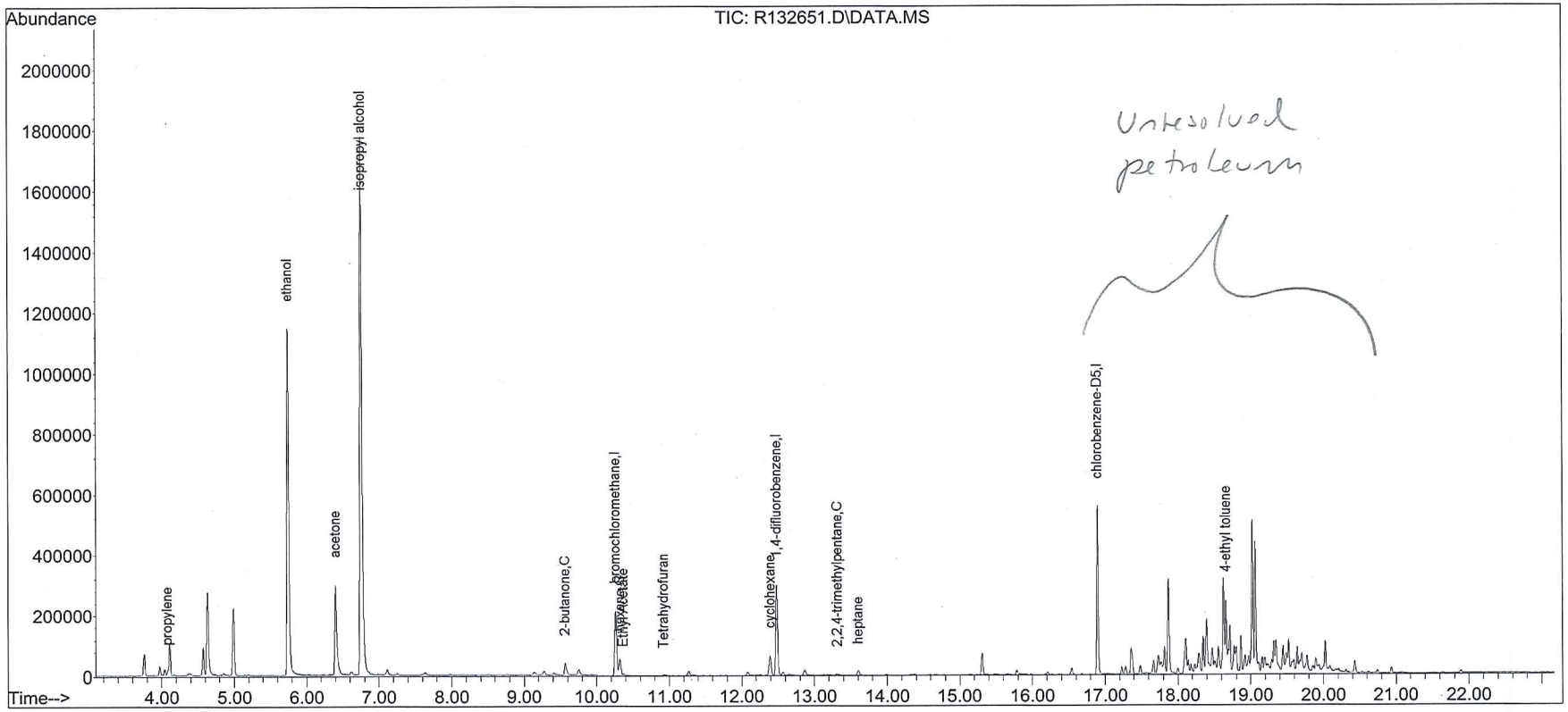
Data Path : O:\Forensics\Data\AIR1\2014\140214T\
Data File : R132651.D
Acq On : 14 Feb 2014 9:38 pm
Operator : AIRPIANO1:MB
Sample : L1403217-05,3,250,250
Misc : WG670549,ICAL9006
ALS Vial : 9 Sample Multiplier: 1

FUTURES BEHAVIOR THERAPY CENTER
CLIENT ID S-157- J.2 FEB 2014

Quant Time: Feb 17 19:56:24 2014
Quant Method : O:\Forensics\Data\AIR1\2014\140214T\TALL140103.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jan 04 09:22:25 2014
Response via : Initial Calibration

C_5-C_8	55	ug/m^3
C_9-C_{12}	270	ug/m^3
C_9-C_{10}	74	ug/m^3



TALL140103.M Mon Feb 17 21:32:59 2014 Page: 2

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Jul 21 2015, 01:17 pm

Work Group: WG563347 for Department: 3 GC/MS

Created: 26-SEP-12 Due: Operator: ry

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1217119-01	S-149-J	S	APH-10	AIR	DONE	U	1022	1001	SO	Can-6
L1217119-02	DUP	S	APH-10	AIR	DONE	U	1022	1001	SO	Can-6
L1217119-03	S-157-J	S	APH-10	AIR	DONE	U	1022	1001	SO	Can-6
L1217119-04	S-1100	S	APH-10	AIR	DONE	U	1022	1001	SO	Can-6
L1217119-05	S-171-X	S	APH-10	AIR	DONE	U	1022	1001	SO	Can-6
L1217119-06	NEPD	S	APH-10	AIR	DONE	U	1022	1001	SO	Can-6
L1217135-01	092012-DK	S	APH-10	AIR	DONE	U	1020	1009	SO	Can-2.7
L1217204-01	CAN 155 SHELF 8	S	APH-10	AIR	DONE	I	1025	1003	NC	Can-2.7
L1217204-02	CAN 624 SHELF 46	S	APH-10	AIR	DONE	I	1025	1003	NC	Can-6
L1217204-03	CAN 1542 SHELF 51	S	APH-10	AIR	DONE	I	1025	1003	NC	Can-6
L1217228-01	WE CARE DRYCLEAN 1ST	S	APH-10	AIR	DONE	U	1018	1010	SO	Can-6
L1217228-02	WE CARE DRYCLEAN BSM	S	APH-10	AIR	DONE	U	1018	1010	SO	Can-6
L1217232-01	CRAWL SPACE	S	APH-10	AIR	DONE	U	1025	1010	SO	Can-6
L1217232-02	1ST FLOOR REAR ENTRY	S	APH-10	AIR	DONE	U	1025	1010	SO	Can-6
L1217232-03	OUTSIDE AMB	S	APH-10	AIR	DONE	U	1025	1010	SO	Can-6
L1217232-04	SUBSLAB VENT STUB	S	APH-10	SOIL_VAPOR	DONE	U	1025	1010	SO	Can-2.7
WG563347-1	MS BFB Tune Standard	S	APH-10	AIR	DONE	U				
WG563347-2	Continuing Calibrati	S	APH-10	AIR	DONE	U				
WG563347-3	Laboratory Control S	S	APH-10	AIR	DONE	U				
WG563347-4	Laboratory Method Bl	S	APH-10	AIR	DONE	U				
WG563347-5	Duplicate Sample	S	APH-10	AIR	DONE	U				

Comments:

WG563347-5 L1217119-01

C5 – C8 window Cg – C12 ali C4 – C10 Aro

isopentane – Nonane nonane – dodecane o-xyl – naphthalene

7 min – 18 18 – 21 18 – 21

Quantitation Report (QT Reviewed)

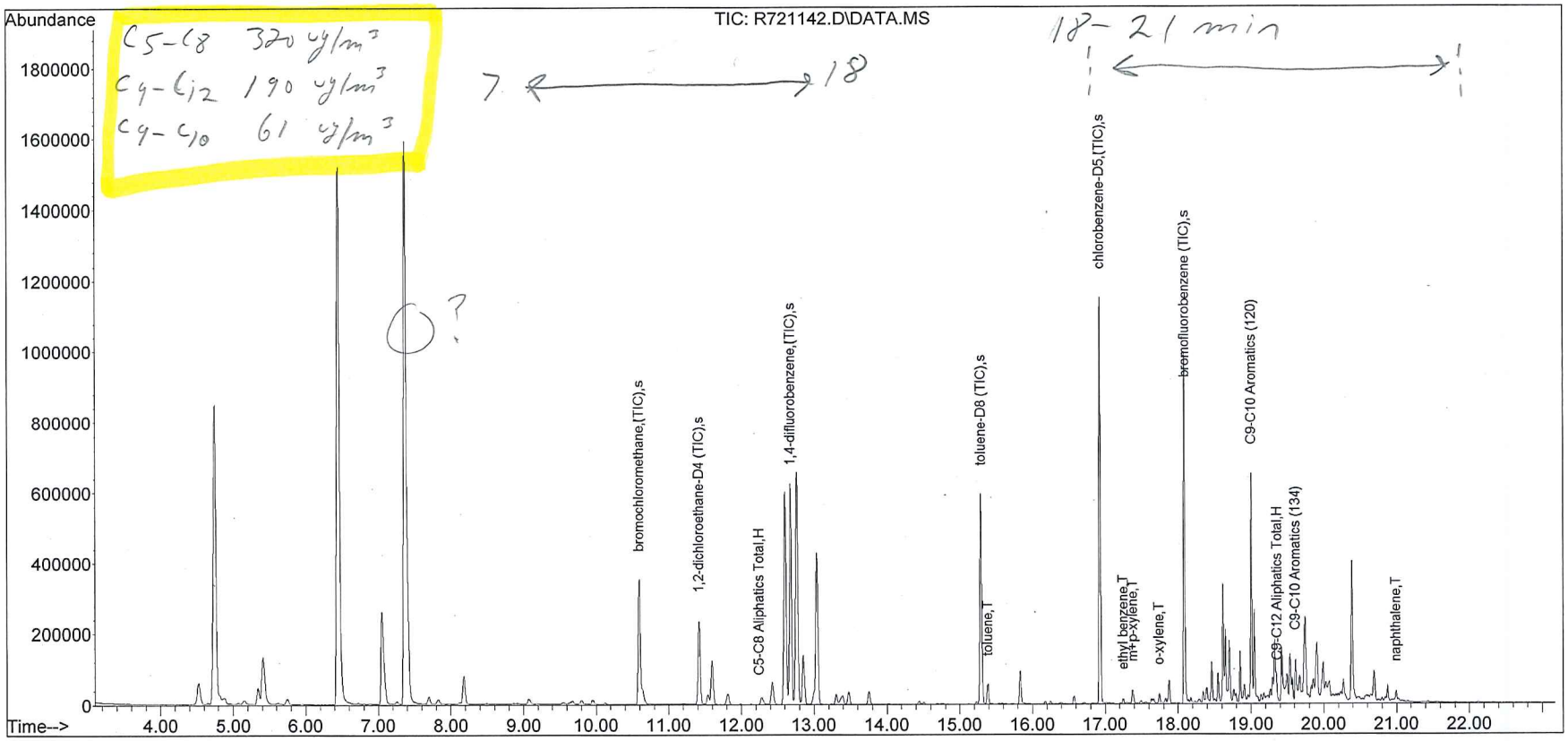
Data Path : O:\Forensics\Data\Airlab7\2012\120927A\
Data File : R721142.D
Acq On : 27 Sep 2012 10:45 pm
Operator : AIRLAB7:RY
Sample : L1217119-03,3,250,250
Misc : WG563347,ICAL7117
ALS Vial : 11 Sample Multiplier: 1

FUTURES BEHAVIOR THERAPY CENTER
Client ID S-157 J 2012

Quant Time: Sep 28 10:36:40 2012
Quant Method : O:\Forensics\Data\Airlab7\2012\120927A\APH120806.M
Quant Title : APH Analysis
QLast Update : Tue Aug 07 09:28:40 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

C_9-C_{12} Ali
C_9-C_{12} ARO
C_5-C_8 Ali
18-21 min



APH120806.M Fri Sep 28 10:36:49 2012

Page: 2

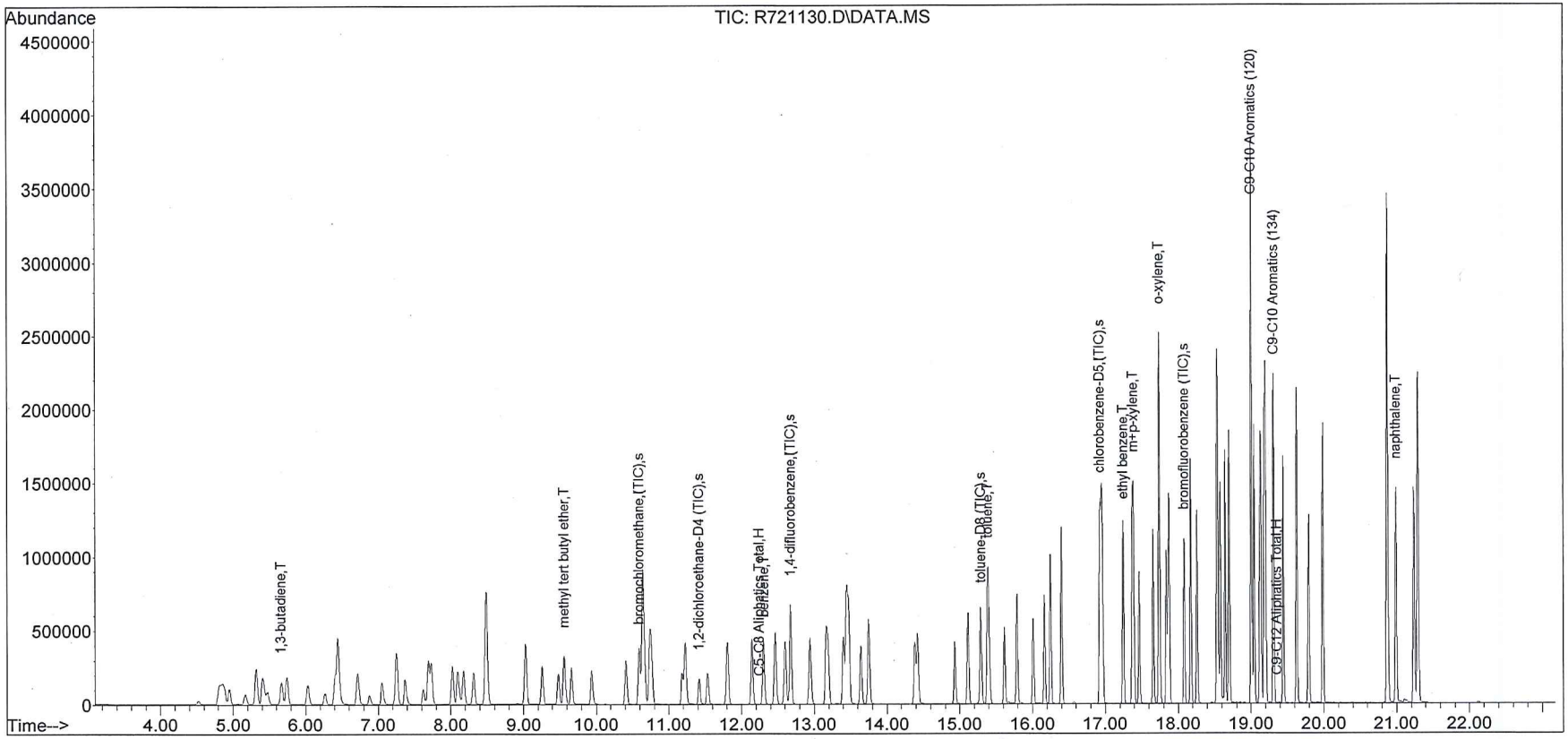
Quantitation Report (QT Reviewed)

APH STANDARD

Data Path : O:\Forensics\Data\Airlab7\2012\120927A\
Data File : R721130.D
Acq On : 27 Sep 2012 3:10 pm
Operator : AIRLAB7:RY
Sample : WG563347-3,3,250,250
Misc : WG563347,ICAL7117
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 27 15:33:35 2012
Quant Method : O:\Forensics\Data\Airlab7\2012\120927A\APH120806.M
Quant Title : APH Analysis
QLast Update : Tue Aug 07 09:28:40 2012
Response via : Initial Calibration

Sub List : APH_STD_M - .

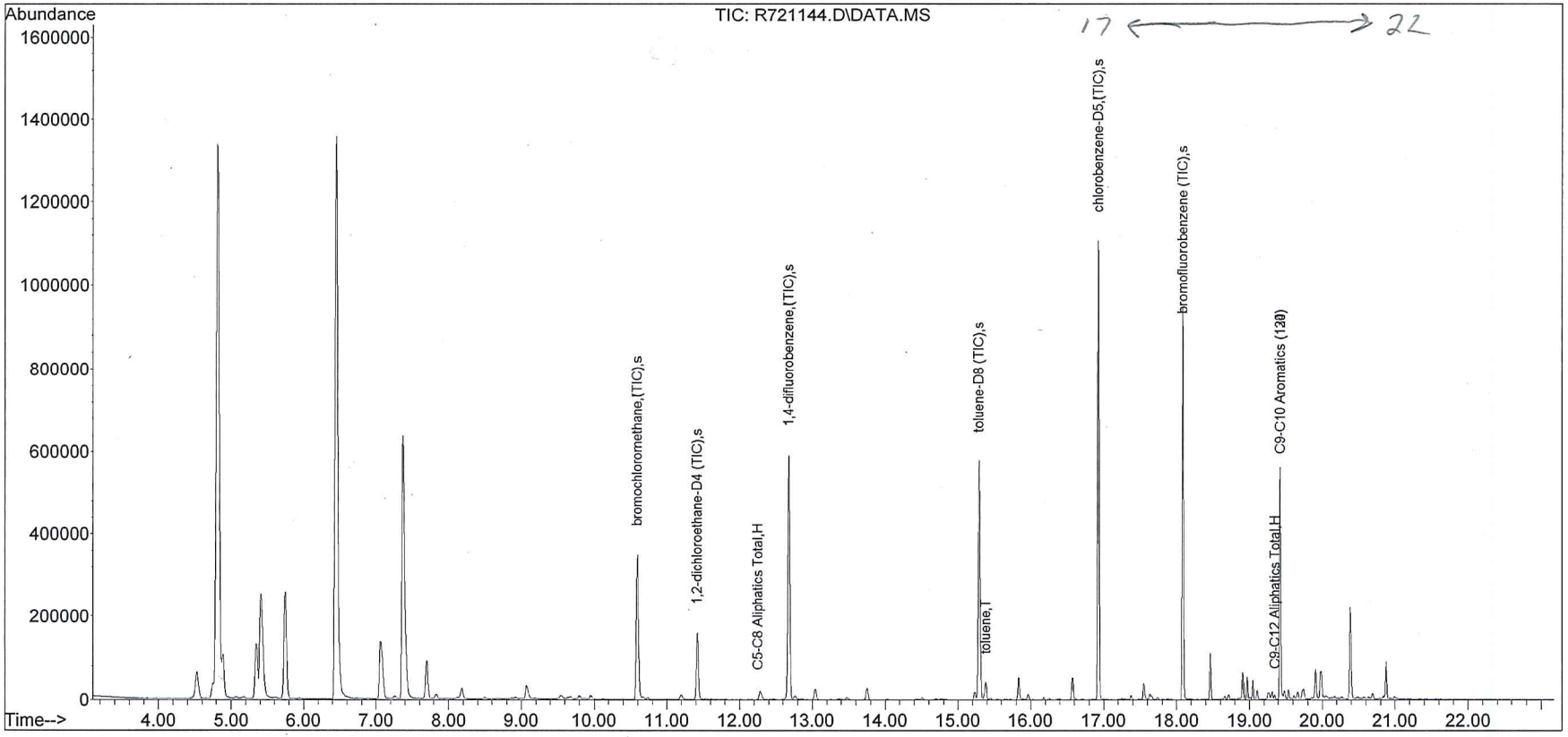


Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab7\2012\120927A\ APH STANDARD
Data File : R721144.D
Acq On : 27 Sep 2012 11:48 pm
Operator : AIRLAB7:RY
Sample : L1217119-05,3,250,250 Client ID S-171-X 2012
Misc : WG563347,ICAL7117
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 28 10:49:13 2012
Quant Method : O:\Forensics\Data\Airlab7\2012\120927A\APH120806.M
Quant Title : APH Analysis
QLast Update : Tue Aug 07 09:28:40 2012
Response via : Initial Calibration

Sub List : APH_STD_M - . C5-C8 C9-C12 ARO



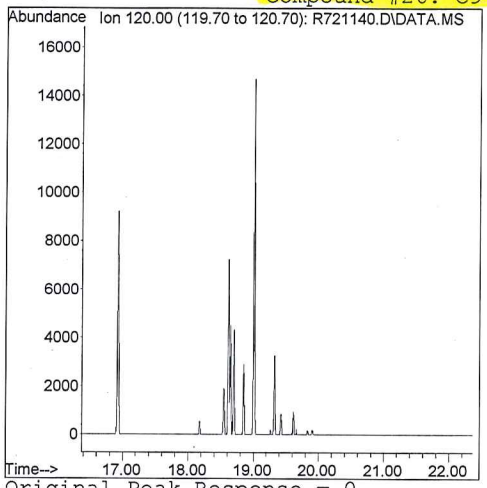
APH120806.M Fri Sep 28 10:49:22 2012 Page: 2

APH STANDARD Integration

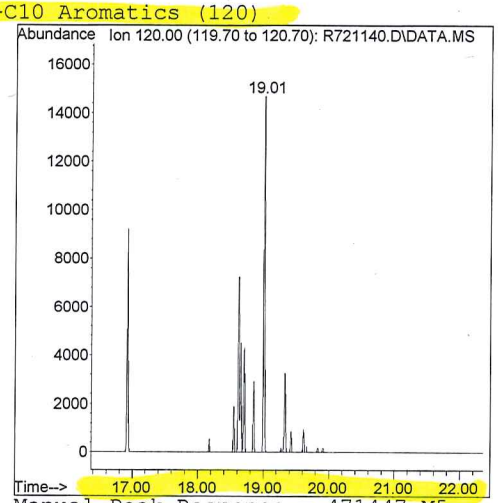
Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\Airlab7\2Q	Method	: APH120806.M
Data File	: R721140.D	Operator	: AIRLAB7:RY
Date Inj'd	: 9/27/2012 9:43 pm	Instrument	: Airlab 7
Sample	: WG563347-5,3,250,250	Quant Date	: 9/28/2012 8:52 am

Compound #26: C9-C10 Aromatics (120)



Original Peak Response = 0



Manual Peak Response = 471447 M5

M5 = Manual integration over a retention time range required, i.e. for hydrocarbon range methods.