Chain of Custody, Shipping & Receiving Documents, Sample Condition Checklist

F&B Project 506179

506179

MP 06-08-15

BIY/V2

USEPA
DateShipped: 6/7/2015
CarrierName:
AirbillNo:

CHAIN OF CUSTODY RECORD
Site #: 10PB
Contact Name: Eric Nuchims
Contact Phone: 206-624-9537

No: 10-060715-074928-0033
Cooler #: 38
Lab: Friedman & Bruya
Lab Phone: (206) 285-8282

Lab #	Collected	Sample Time	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Preservative	Lab QC
01 A-C	6/5/2015	11:26	15053139	BH24GW	Oil Fingerprinting	Ground Water	3	40 ml VOA	HCL<2	N
02 A-B	6/5/2015	13:30	15053140	BH25GW	Oil Fingerprinting	Ground Water	2	32 oz Amber	Wet Ice	N
02C-E ~~03 A-C~~	6/5/2015	13:30	15053140	BH25GW	Oil Fingerprinting, TPH-Dx	Ground Water	3	40 ml VOA	HCL<2	N
03 A-B	6/5/2015	18:11	15053141	BH26GW	Oil Fingerprinting	Ground Water	2	32 oz Amber	Wet Ice	N
03C-E	6/5/2015	18:11	15053141	BH26GW	Oil Fingerprinting	Ground Water	3	40 ml VOA	HCL<2	N

Samples received at 4 °C

Special Instructions:
TPH-Dx added per M. Woodke 6/8/15

SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Samples	[signature]	6/5/15 11:20	[signature] FEB	6/8/15 1120	

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 506179 CLIENT EPA INITIALS/ DATE: 6/8 B

If custody seals are present on cooler, are they intact?	☑ NA	☐ YES	☐ NO
Cooler/Sample temperature	4 °C		
Were samples received on ice/cold packs?		☑ YES	☐ NO
Number of days samples have been sitting prior to receipt at laboratory	3 days		
Is there a Chain-of-Custody* (COC)? *or other representative documents, letters, and/or shipping memos		☑ YES	☐ NO
Are the samples clearly identified? (explain "no" answer below)		☑ YES	☐ NO

Is the following information provided on the COC* ? (explain "no" answer below)

Sample ID's	☑ Yes	☐ No	# of Containers	☑ Yes	☐ No
Date Sampled	☑ Yes	☐ No	Relinquished	☑ Yes	☐ No
Time Sampled	☑ Yes	☐ No	Requested analysis	☑ Yes	☐ No

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below)		☑ YES	☐ NO
Were appropriate sample containers used? (explain "no" answer below)		☑ YES	☐ NO
If custody seals are present on samples, are they intact?	☑ NA	☐ YES	☐ NO
Are samples requiring no headspace, headspace free?	☐ NA	☑ YES	☐ NO

Explain "no" items from above (use the back if needed)

Are samples for PCB testing?		☐ YES	☑ NO
Did samples originate out of the country? (if yes, put in APHIS refrigerator)		☐ YES	☑ NO

Was client notified of sample receipt? ☑ Over the Counter ☐ Picked up by F&BI

☐ YES ☐ NO (explain)

If Yes, name of person contacted _____ ☐ Left Message

Special Instructions from Client _____

NWTPH-Dx
Laboratory Worksheets

F&B Project 506179

TPH AS DIESEL/MOTOR OIL EXTRACTION WORKSHEET (WATER)

Project #: 506179
Client: Ecology & Environment
QC Batch ID: 05-1070
Samples checked against COC: HN

Date Received: 6/8/15
Date Extracted: ✓
Date Analyzed:
GC ☐1 ☐4 ☒6, Seq. Date

Analysis Method:
- ☒ NWTPH-Dx
- ☐ 8015M
- ☐ AK102 [LCS/LCSD]
- ☐ AK103 [LCS/LCSD]
- ☐ Other

Due Date: Tues. 6/9

Calculation Range/Requested Analyte(s):
- ☒ C_{10} to C_{36} (Diesel Ext.)
- ☐ C_{10} to C_{36} (Diesel/Motor Oil)
- ☐ Other
- ☐ C_{10} to C_{25} (Diesel)
- ☐ C_{25} to C_{36} (Motor Oil)
- ☐ C_8 to C_{11} (Stoddard Solvent)

- ☐ ve's not Acceptable
- ☐ Dilutions Only Not Acceptable
- ☐ Need EDF

Clean Up:
- ☐ Silica Gel
- ☐ Filtration
- ☐ Other
- ☐ Only if Detect
- ☐ With and Without

Reporting Units:
- ☒ µg/L (ppb)
- ☐ Other

Extraction Method
- ☒ 3510
- ☐ Other

Sample ID	pH	Sample Volume (mL)	Extraction Solvent Volume	Final Volume	Dilutions Amt. Extract	Dilutions Amt. Solvent	Clean Up Silica	Clean Up Filter	Observations
~~01~~ No HN			3 x 60 ml	2.5 ml or 5 ml					2015 JUN 8 PM 2 23
02A	<2	1,000							
03A		1,000							
	HN			6/8					
Initials									

	✓	Volume	Conc. (ppm)	Compound(s)	Lot #	Initials	Date
Solvent		NA	NA	Methylene chloride	155-11	HN	6/8/15
Other							
Surrogate(s)		25 µl	1,000	Pentacosane/o-terphenyl			
		50 µl	1,000	Pentacosane/o-terphenyl	45-50		
		25 µl	1,000	Triacontane/Pentacosane/o-terphenyl			
		50 µl	1,000	Triacontane/Pentacosane/o-terphenyl			
Acid (HCl)							

Project Leader Initials: GP

NOTES: need c-grams

FORMS\LAB\EXTRACT\DIESEL_HCID

Rev. 09/30/14

BATCH ORGANIC EXTRACTION WORKSHEET

Date Extracted: 6/8 Technician: HL

QA Batch: O5-01070

2015 JUN 8 PM 2 50

Matrix
- ☐ Soil
- ☒ Water
- ☐ Product
- ☐ Wipe
- ☐ Other_____

Solvent
- ☒ Methylene Chloride
- ☐ Acetone
- ☐ Methanol
- ☐ Hexane
- ☐ Other_____

Solvent Lot # 195-11

Analysis
- ☐ Diesel
- ☐ Gas/BTEX
- ☐ HCID
- ☐ 8270 SIM
- ☐ 8270
- ☐ 8260
- ☐ PCB
- ☐ Organic Lead
- ☐ Methamphetamine
- ☐ Other_____

Clean Up: ☐ FlorsiL (FL) ☐ Cupper (Cu) ☐ Silica ☐ Filtration ☐ H_2SO_4 ☐ Other_____

Sample ID	pH Waters only	Sample Weight/ Volume	Extraction Solvent Volume	Final Volume	Dilutions Amt. Extract	Dilutions Amt. Solvent	Clean Up (Circle) Silica	Clean Up (Circle) FL Filter	Clean Up (Circle) Cu Filter	Clean Up (Circle) H_2SO_4	Observations
MB	<2	1,000	3x60 ml	5 ml			✓				
LCS	/	/	/	/			✓				
LCSD	/	/	/	/			✓				
	HL			6/8							
Initials											

Samples in Batch

506097-01	506112-02	/ 03	506167-17	506143-14
/ 02	/ 03	506169-01	506179-02	
/ 03	506113-01	/ 02	/ 03	
/ 04	/ 02	/ 03	506122-09	

Date/Initials

Matrix Spikes:
_____ µL of _____ ppm of _____ Lot # _____ _____
Amount Concentration Analytes and Solvent

Matrix Spikes:
25 µL of 100,000 ppm of WADF #2 Lot # 45-121 6/8/15 HL
Amount Concentration Analytes and Solvent

Surrogates:
25 µL of 1,000 ppm of Pentachlorophenol/Terp Lot # 45-50 /
Amount Concentration Analytes and Solvent

Internal Standards:
_____ µL of _____ ppm of _____ Lot # _____ _____
Amount Concentration Analytes and Solvent

Notes:

GC#6 06-08-15

Weigh	ca	ter-	Form	Time\	W or		Water												
	Gel	ed			S		Soil			50	250	250	250	50	50	50	250		
									(Change limits for -->	50	50	250	250	50	50	50	500		
%	Silica	Filte	Rpt		Typ	Samp	Final	Dil	low level soils)										
Solid						Vol	Volume		Sample Name	Diesel Conc.	Diesel Ext Conc.	Motor Oil Conc.	Heavy Oil/Cr Conc.	C12-24 Conc.	Stoddard Conc.	Kerosene Conc.	C24-38 Conc.	Surrogate Terphenyl Recovery	Vial #
1.00			1	06-08-15 16:14	W	1000	5		05-1070 mb	<50	<250	<250	<250	<50	<50	<50	<250	91	28
1.00				06-08-15 16:23	W	1000	5		05-1070 lcs	2497	2451	<250	1345	2117	1471	3956	<250	97	29
1.00				06-08-15 16:34	W	1000	5		05-1070 lcsd	2463	2418	<250	1333	2099	1448	3903	<250	97	30
1.00			2	06-08-15 16:45	W	1000	5		506097-01	<50	<250	<250	<250	<50	<50	<50	<250	93	31
1.00			2	06-08-15 16:56	W	1000	5		506097-02	<50	<250	<250	<250	<50	<50	<50	<250	99	32
1.00			2	06-08-15 17:07	W	1000	5		506097-03	<50	<250	<250	<250	<50	<50	<50	<250	103	33
1.00			2	06-08-15 17:18	W	1000	5		506097-04	21988	21682	371	8534	13434	28213	53261	<250	68	34
1.00			2	06-08-15 17:29	W	1000	5		506112-02	<50	<250	<250	<250	<50	<50	<50	<250	99	35
1.00			2	06-08-15 17:40	W	1000	5		506112-03	1584	1617	<250	604	951	5418	8828	<250	89	36
1.00			2	06-08-15 17:51	W	920	5		506113-01	<54.3478	<271.7391	<271.739	<271.7391	<54.3478	<54.3478	<54.3478	<271.739	93	37
1.00			2	06-08-15 18:02	W	1000	5		506113-02	<50	<250	<250	<250	<50	<50	<50	<250	82	38
1.00			2	06-08-15 18:13	W	960	5		506113-03	<52.0833	<260.4166	<260.416	<260.4166	<52.0833	<52.0833	<52.0833	<260.416	99	39
1.00				06-08-15 18:24		1	1.0		1000 MO 44-151B	215	814	946	948	1492	1	323	-12	88	4
1.00				06-08-15 18:35		1	1.0		1000 Dx 44-172C	982	970	18	523	824	596	1566	-12	98	5
1.00			2	06-08-15 18:46	W	1000	5.0		506169-01	551	542	<250	<250	<50	1076	1641	<250	100	40
1.00			2	06-08-15 18:57	W	1000	5.0		506169-02	<50	<250	<250	<250	<50	<50	<50	<250	78	41
1.00			2	06-08-15 19:08	W	1000	5.0		506169-03	<50	<250	<250	<250	<50	<50	<50	<250	95	42
1.00			2	06-08-15 19:20	W	1000	5.0		506179-02	<50	<250	<250	<250	<50	<50	<50	<250	95	43
1.00			2	06-08-15 19:31	W	1000	5.0		506179-03	948	928	<250	<250	<50	3623	5464	<250	97	44
1.00			9	06-08-15 19:42	W	825	2.5		506143-14	83	<151.5151	<151.515	<151.5151	207	<30.3030	125	<151.515	97	45
1.00			11	06-08-15 19:53	W	255	2.5		506167-17	<98.0392	<490.1960	<490.196	<490.1960	<98.0392	<98.0392	<98.0392	<490.196	101	46
1.00				06-08-15 20:04		1	1.0		500 MO 44-50D	112	412	475	480	756	0	167	-12	100	92
1.00				06-08-15 20:16		1	1.0		500 Dx 44-94C	473	466	7	248	390	291	757	-11	91	93
1.00				06-08-15 20:27		1	1.0		HCIDw 35-175	69	228	251	254	400	51	165	-25	257	98
1.00				06-08-15 20:38		1	1.0		HCIDw 35-174	100	98	1	49	77	66	162	-11	99	99

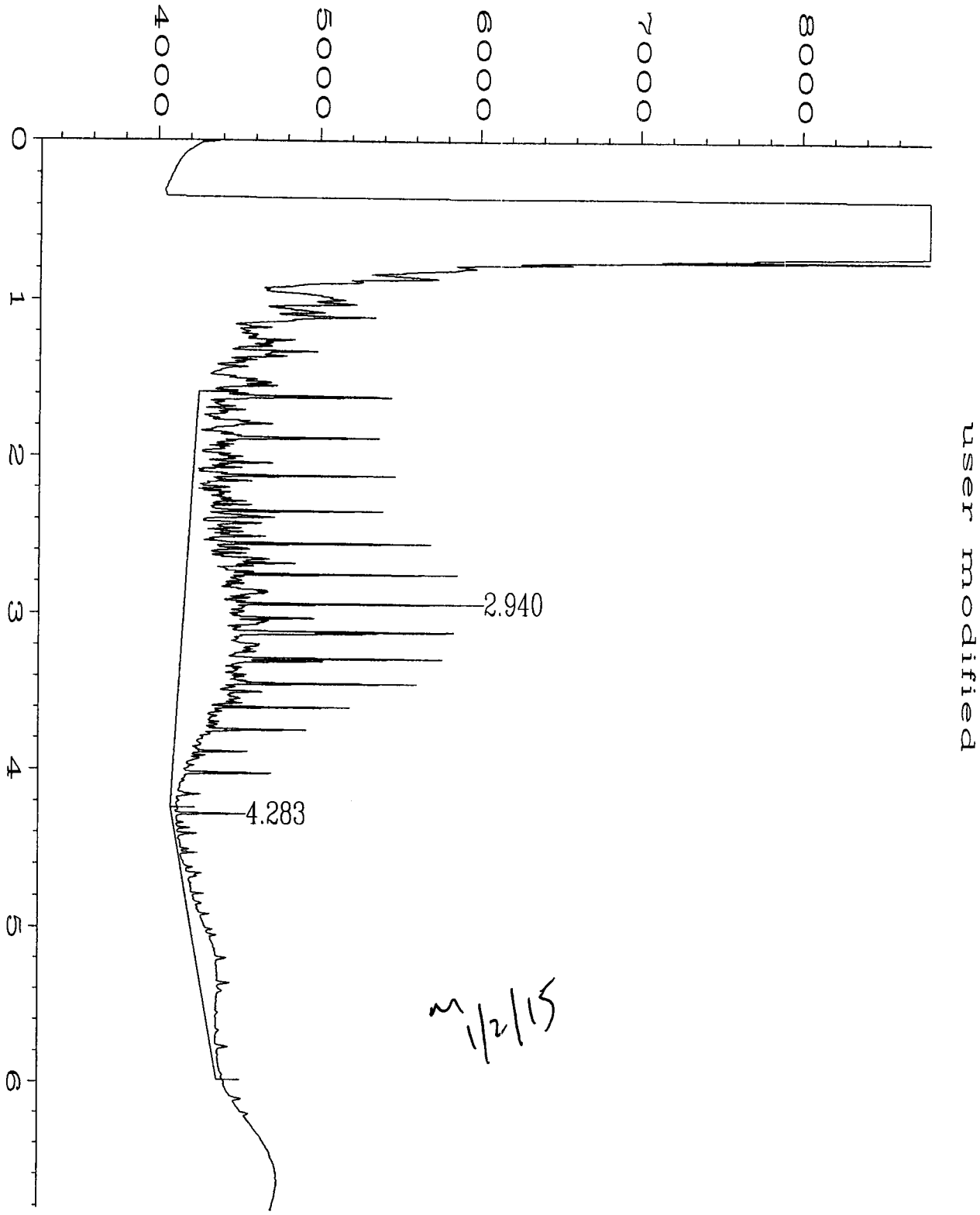
Calculated by: M
Analyzed on: 6/9/15 Page

Reviewed by: MG 6/9/15

NWTPH-Dx
Initial Calibrations

F&B Project 506179

GC - 6										
Seq. Date	12/31/14									
					ICDSL.XLS					
Sample ID	5ppm dx	10ppm	50ppm	100ppm	500ppm	1000ppm	5000ppm	10kppm dx 44-94		
Conc.	5	10	50	100	500	1000	5000	10000		
Tricontane	0	0	0	0	0	0	0.00E+00	0		
Pentacosan	202	0	278	495	2768	5641	1.91E+04	38755		
Terphenyl	118	0	936	1350	0	14945	5.11E+03	7.72E+05		
Diesel C10	44087	97079	483101	989748	5329982	10718075	4.85E+07	1.02E+08		
Diesel Ex	51287	97079	490789	991580	5376834	10824324	4.90E+07	1.03E+08		
Motor Oil	2572	0	7688	1832	46852	106249	4.81E+05	1.02E+06		
Heavy Oil	12142	43280	235740	475348	2651089	5323849	2.43E+07	50368744		
JP4	4525	4836	3852	3415	4398	-10461	########	########		
Stoddard	19950	85967	306455	597377	3040828	6111632	2.74E+07	5.78E+07		
Kerosene	29520	129247	534507	1070893	5645065	11329232	5.12E+07	1.07E+08		
Bunker C	-202	0	-278	-495	-2768	-5641	########	-38755		
RESPONSE FACTORS									Average	$RS
Tricontane	0	0	0	0	0	0	0	0	0.00E+00	###
Pentacosan	40	0	6	5	6	6	4	4	8.72E+00	###
Terphenyl	24	0	19	14	0	15	1	77	1.86E+01	###
Diesel C10	8817	9708	9662	9897	10660	10718	9709	10162	9.92E+03	6%
Diesel Ex	10257	9708	9816	9916	10754	10824	9805	10264	1.02E+04	4%
Motor Oil	514	0	154	18	94	106	96	102	1.36E+02	###
Heavy Oil	2428	4328	4715	4753	5302	5324	4851	5037	4.59E+03	20%
JP4	905	484	77	34	9	-10	0	-77	1.78E+02	###
Stoddard	3990	8597	6129	5974	6082	6112	5487	5780	6.02E+03	21%
Kerosene	5904	12925	10690	10709	11290	11329	10242	10715	1.05E+04	19%
Bunker C	-40	0	-6	-5	-6	-6	-4	-4	-8.72E+00	###
Analyte	5	10	50	100	500	1000	5000	10000		
Tricontane	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Pentacosan	-363	100	36	43	37	35	56	56		
Terphenyl	-27	100	-1	28	100	20	95	-315		
Diesel C10	11	2	3	0	-7	-8	2	-2		
Diesel Ex	-1	5	3	2	-6	-6	4	-1		
Motor Oil	-279	100	-13	86	31	22	29	25		
Heavy Oil	47	6	-3	-4	-15	-16	-6	-10		
JP4	-409	-172	57	81	95	106	100	143		
Stoddard	34	-43	-2	1	-1	-2	9	4		
Kerosene	44	-23	-2	-2	-8	-8	2	-2		
Bunker C	-363	100	36	43	37	35	56	56		
Calculated by:	m	1/2/15		Reviewed by						
	Initials	Date/Time				Initials	Date/Time			
Update circled values				Excel TPHD sheet Updated			m			
	Initials	Date/Time								



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\011F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 11
Sample Name	: 5ppm dx 44-94	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Dec 14 01:23 PM	Instrument Method	: DX1.MTH
Report Created on:	02 Jan 15 09:56 AM	Analysis Method	: DX1.MTH

Area Percent Report

Data File Name : C:\HPCHEM\6\DATA\12-31-14\011F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 5ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:23 PM
Report Created on: 02 Jan 15 09:56 AM

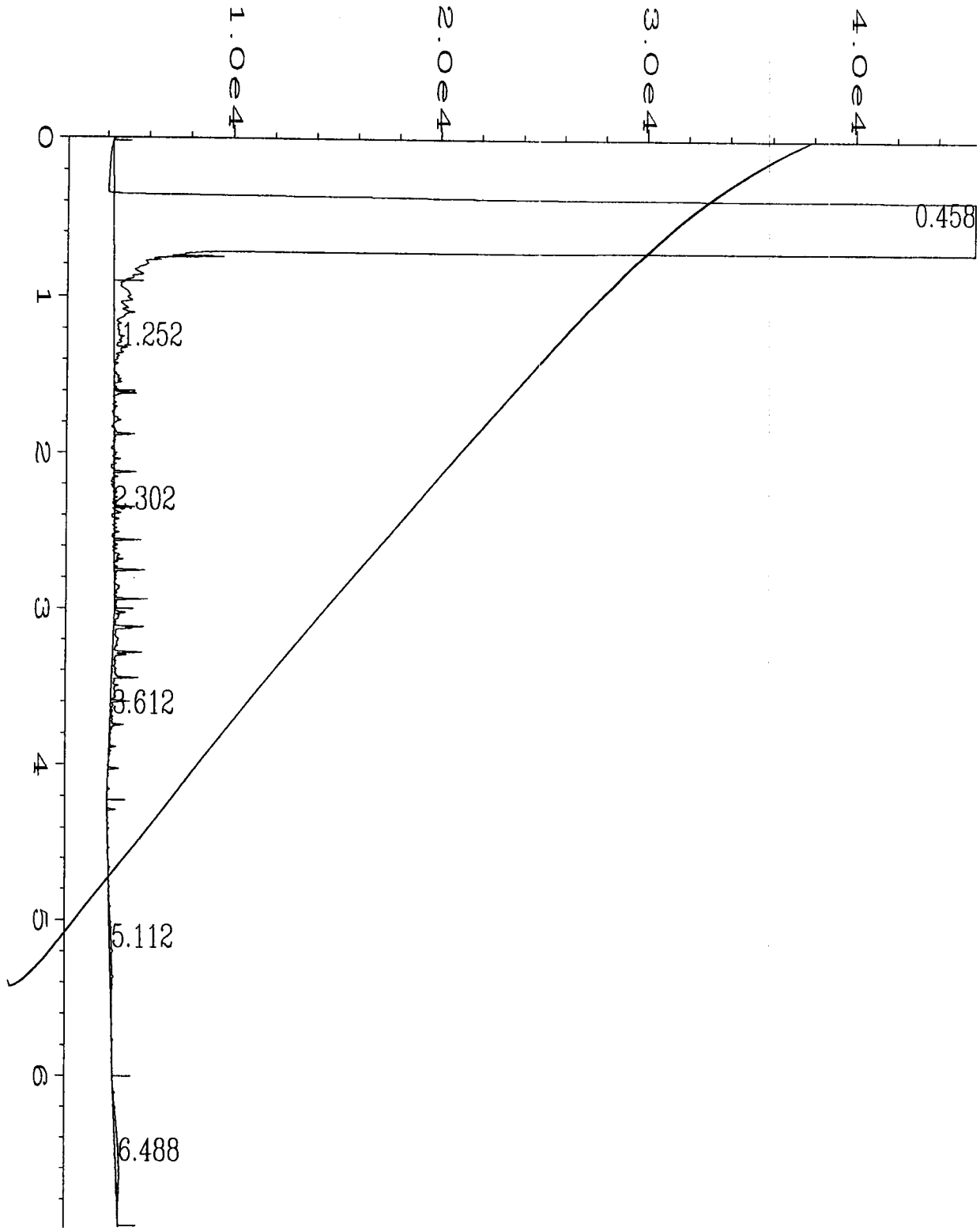
Page Number : 1
Vial Number : 11
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\011F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	2.940	44087	1930	MM	0.381	85.9626
2	4.283	7199	472	MM	0.254	14.0374

Total area = 51287

User Modified m 1/2/15



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\011F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 11
Sample Name	: 5ppm dx 44-94	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Dec 14 01:23 PM	Instrument Method	: DX1.MTH
Report Created on:	02 Jan 15 10:06 AM	Analysis Method	: DX1.MTH

Area Percent Report

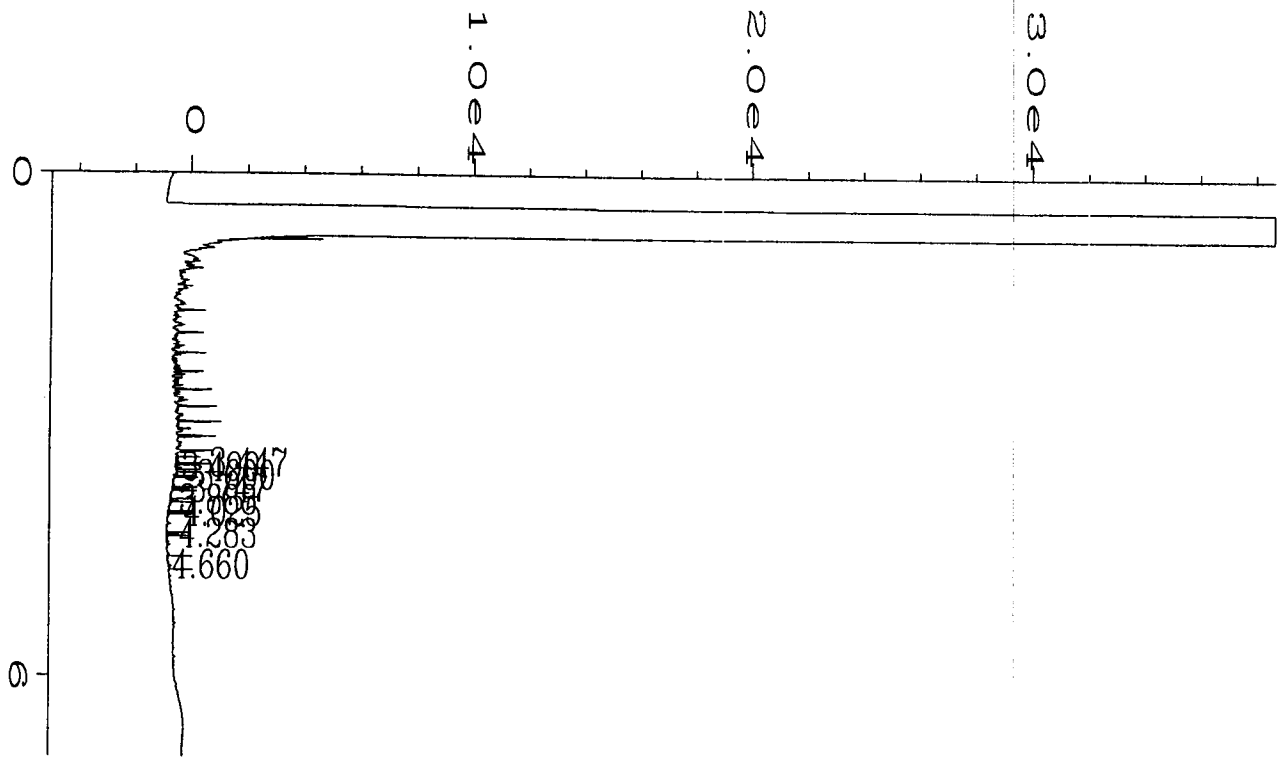
Data File Name : C:\HPCHEM\6\DATA\12-31-14\011F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 5ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:23 PM
Report Created on: 02 Jan 15 10:06 AM

Page Number : 1
Vial Number : 11
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\011F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.33682E+009	1.07443E+008	BVA	0.207	99.9972
2	1.252	13646	1008	VV +	0.000	0.0010
3	2.302	6304	1627	VB +	0.000	0.0005
4	3.612	9688	1559	BB +	0.000	0.0007
5	5.112	2774	277	BV +	0.000	0.0002
6	6.488	4643	183	PB +	0.000	0.0003

Total area = 1.33686E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\011R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 5ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:23 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 11
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\011R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.447	798	1238	BB	0.011	31.4879
2	3.499	118	238	BB	0.012	4.6680
3	3.600	414	845	BB	0.008	16.3365
4	3.747	346	631	BB	0.012	13.6707
5	3.888	166	350	BB	0.008	6.5556
6	4.025	309	578	BB	0.009	12.1973
7	4.283	202	445	BB	0.008	7.9734
8	4.660	180	102	BB	0.032	7.1106

Total area = 2534

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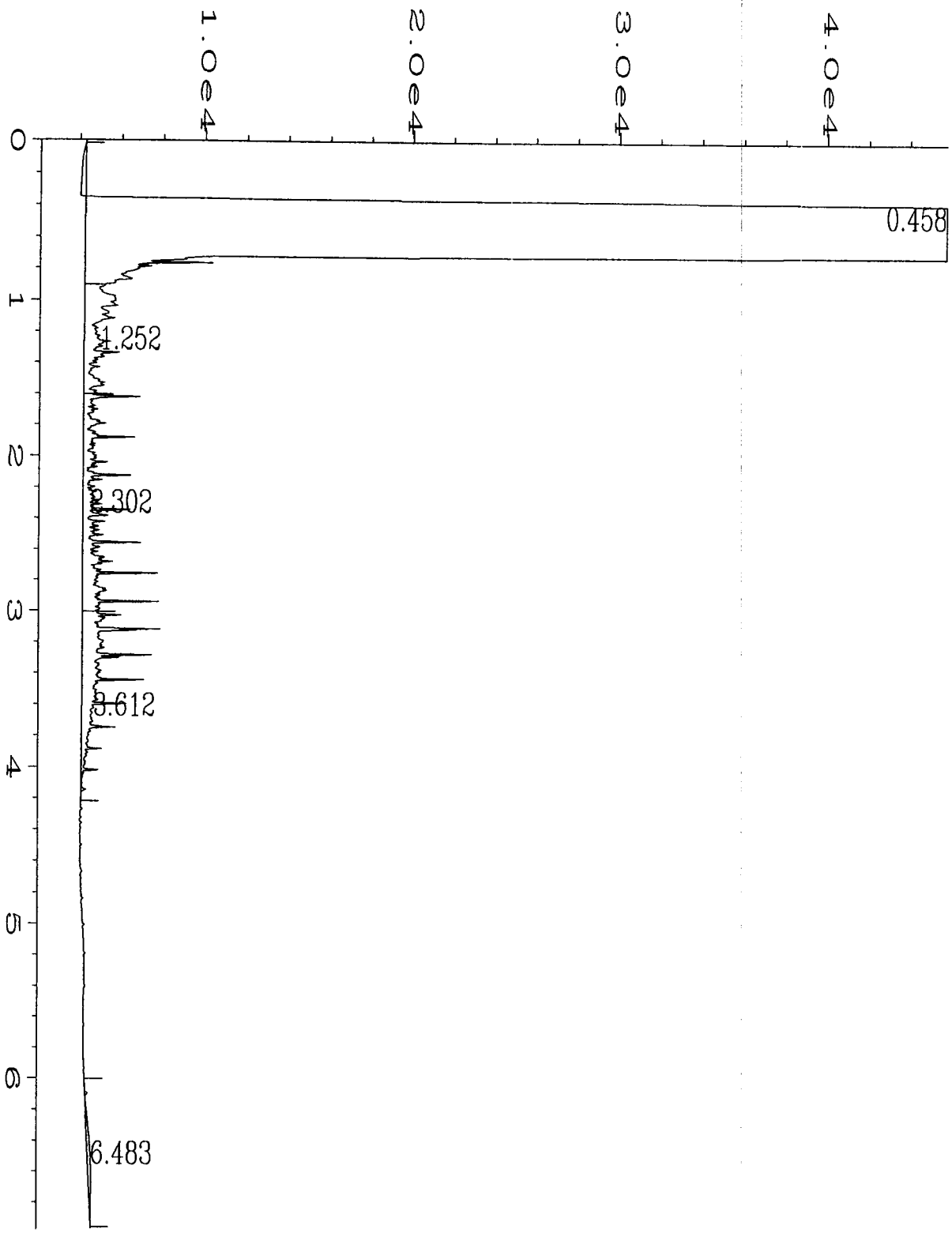
Last modified 1/2/15 mwdl			TPHDSL.XLS			
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\011F0401.D					
Operator	: mwdl			Page Number	: 1	
Instrument	: GC #6			Vial Number	: 11	
Sample Name	: 5ppm dx 44-94			Injection Number	: 1	
Run Time Bar Code:				Sequence Line	: 4	
Acquired on	42004	0.5576389				
Report Created on: 02 Jan 15 10:06 AM				Analysis Method	: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**		
Triacontane					Calibrated	
0	>5.50	<5.55	0	1.00E+05	2/1/11	
Pentacosane						
0	>4.22	<4.31	202	1.09E+05	12/31/14	
o-Terphenyl						
0	>3.46	<3.54	118	1.24E+05	12/31/14	
Results			Area	Resp. factor	Calibrated	
Diesel, start C10 - start C25			44087			
4.4 2	>1.6	<4.22	1.59E+04	9.92E+03	12/31/14	
NWTPH-DX, start C10 - end C36			51287			
5.0 2	>1.6	<6.0	18446	1.02E+04	1/2/15	12/31/14
Motor Oil, start C25 - end C36						
0	>4.22	<6.0	2572	6.49E+03	12/31/14	
Heavy Oil, start C17 - end C36						
1	>3.0	<6.0	12142	8.73E+03	12/31/14	
C12-C24						
0	>5.7	<10.45	4525	9.42E+03	9/25/06	
Stoddard, start C8 - end C11						
3	>0.9	<3.0	19950	6.96E+03	1/8/13	
Kerosene, start C8 - end C20						
4	>0.9	<4.22	29520	6.65E+03	1/10/13	
C24-C38						
0	>10.45	<19.8	-202	9.42E+03	1/27/11	



Data File Name : C:\HPCHEM\6\DATA\12-31-14\012F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 10ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:33 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Area Percent Report

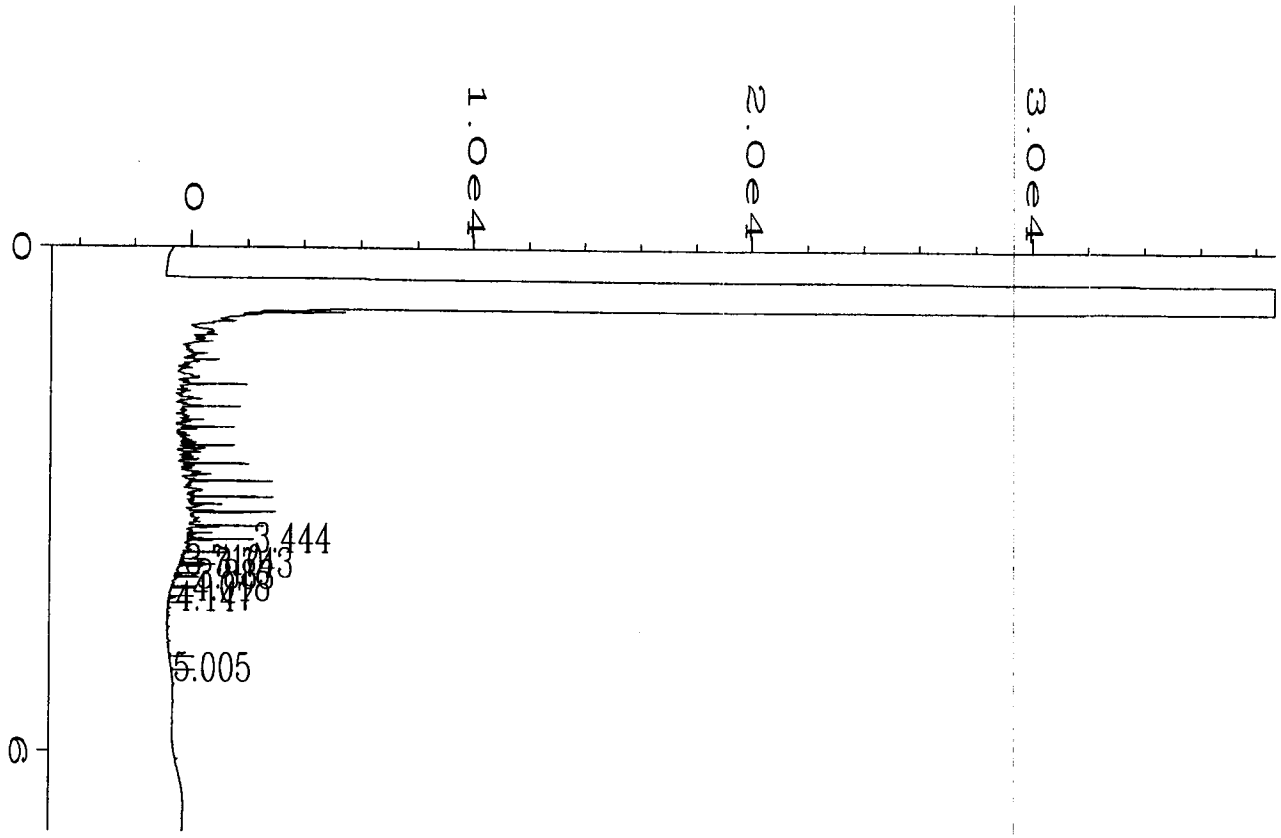
Data File Name : C:\HPCHEM\6\DATA\12-31-14\012F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 10ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:33 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\012F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.35584E+009	1.03002E+008	BVA	0.219	99.9901
2	1.252	32168	1680	VVA	0.319	0.0024
3	2.302	53799	3643	VVA	0.246	0.0040
4	3.612	43280	3745	VB +	0.000	0.0032
5	6.483	4836	185	PB +	0.000	0.0004

Total area = 1.35597E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\012R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 10ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:33 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 12
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\012R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.444	1577	2439	BB	0.011	44.4972
2	3.710	183	171	BB	0.018	5.1736
3	3.743	644	1300	BB	0.008	18.1754
4	3.883	398	795	BB	0.008	11.2151
5	4.018	391	776	BB	0.008	11.0219
6	4.147	234	241	BB	0.015	6.5888
7	5.005	118	87	BB	0.023	3.3279

Total area = 3545

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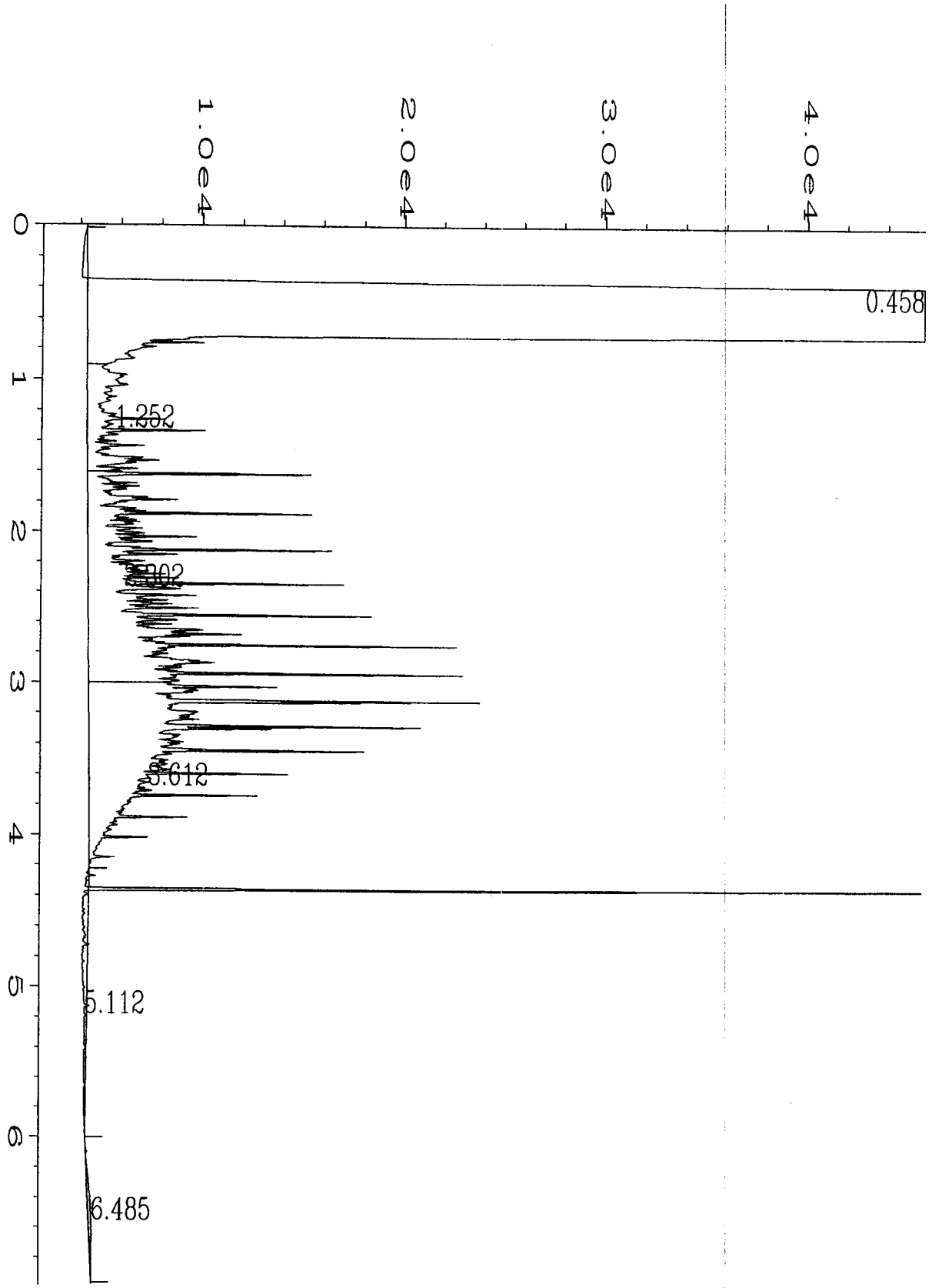
Last modified 1/2/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\012F0401.D						
Operator	: mwdl			Page Number		: 1	
Instrument	: GC #6			Vial Number		: 12	
Sample Name	: 10ppm dx 44-94			Injection Number		: 1	
Run Time Bar Code:				Sequence Line		: 4	
Acquired on	42004	0.5645833					
Report Created on: 02 Jan 15 10:07 AM				Analysis Method		: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>5.50	<5.55	0	1.00E+05		2/1/11	
Pentacosane							
0	>4.22	<4.31	0	1.09E+05		12/31/14	
o-Terphenyl							
0	>3.46	<3.54	0	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
10	>1.6	<4.22	9.71E+04	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
10	>1.6	<6.0	97079	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
0	>4.22	<6.0	0	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
5	>3.0	<6.0	43280	8.73E+03		12/31/14	
C12-C24							
1	>5.7	<10.45	4836	9.42E+03		9/25/06	
Stoddard, start C8 - end C11							
12	>0.9	<3.0	85967	6.96E+03		1/8/13	
Kerosene, start C8 - end C20							
19	>0.9	<4.22	129247	6.65E+03		1/10/13	
C24-C38							
0	>10.45	<19.8	0	9.42E+03		1/27/11	



Data File Name : C:\HPCHEM\6\DATA\12-31-14\013F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 50ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:42 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Area Percent Report

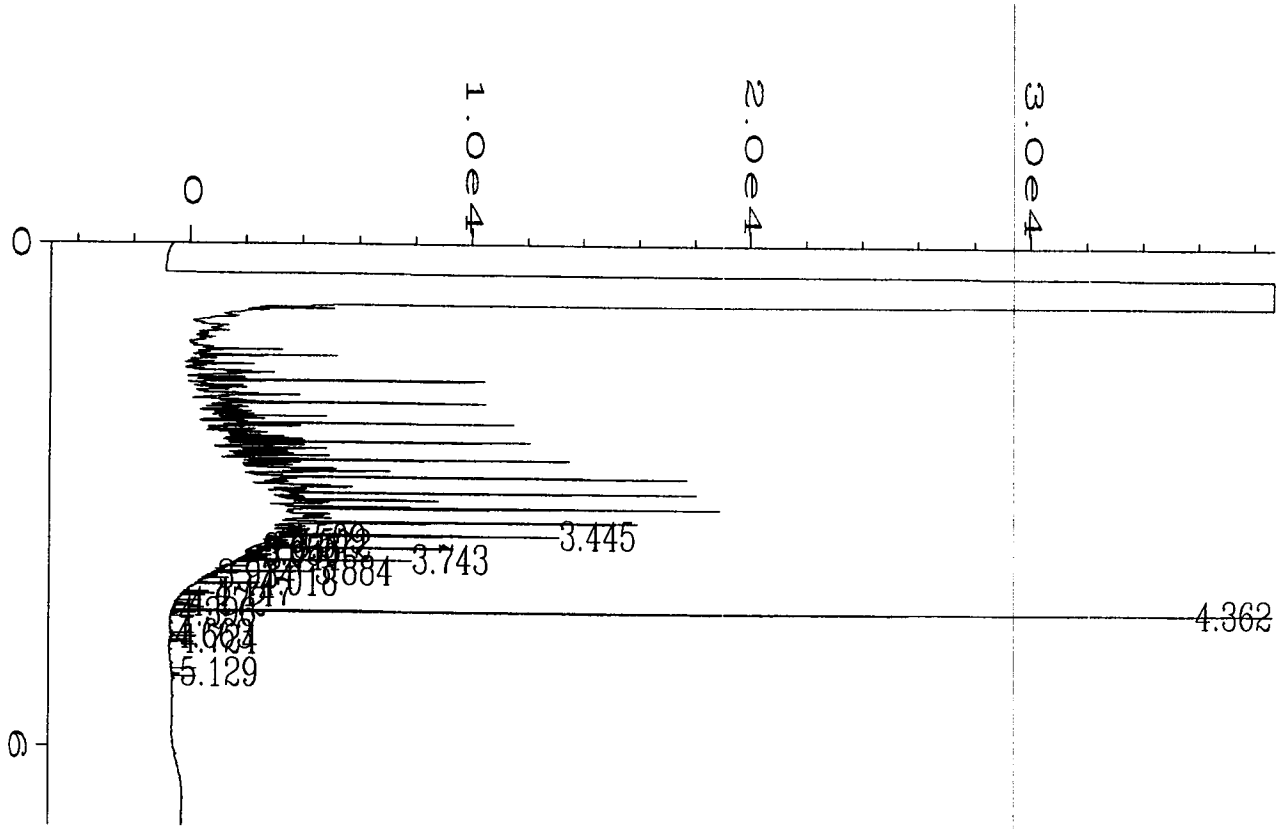
Data File Name : C:\HPCHEM\6\DATA\12-31-14\013F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 50ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:42 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\013F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.36979E+009	1.03048E+008	BVA	0.222	99.9600
2	1.252	51406	5792	VVA	0.148	0.0038
3	2.302	255049	18574	VV +	0.000	0.0186
4	3.612	228988	19314	VB +	0.000	0.0167
5	5.112	7966	41493	BV +	0.000	0.0006
6	6.485	4788	182	PB +	0.000	0.0003

Total area = 1.37034E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\013R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 50ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:42 PM
Report Created on: 02 Jan 15 10:07 AM

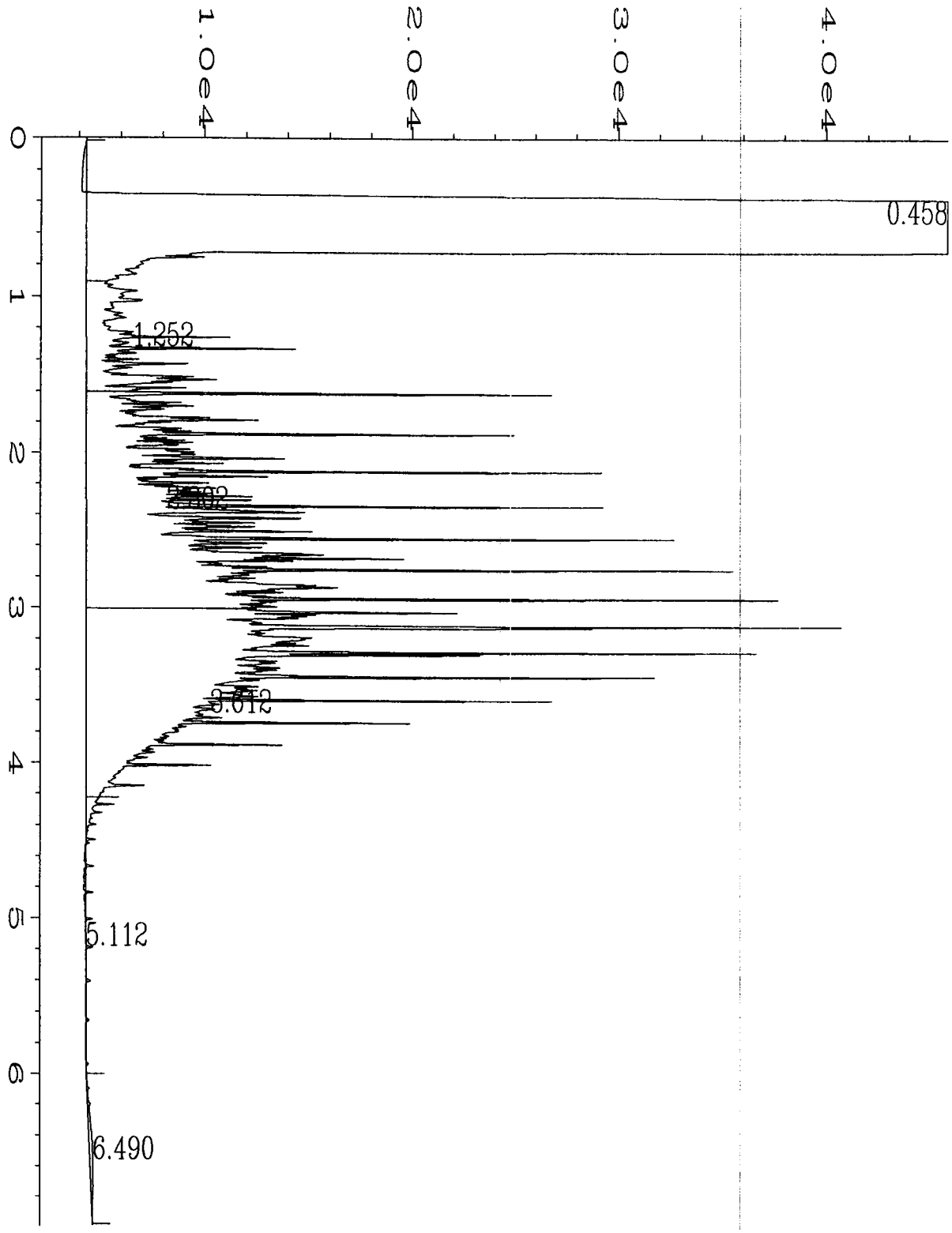
Page Number : 1
Vial Number : 13
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\013R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.445	5911	10878	BB	0.009	13.3149
2	3.509	936	601	BB	0.031	2.1073
3	3.572	1261	1294	BB	0.016	2.8401
4	3.625	4439	537	BB	0.138	9.9991
5	3.656	442	591	BB	0.012	0.9956
6	3.711	721	819	BB	0.015	1.6246
7	3.743	2943	6382	BB	0.008	6.6291
8	3.884	1774	3646	BB	0.012	3.9963
9	3.934	346	400	BB	0.014	0.7793
10	4.018	1175	2447	BB	0.008	2.6458
11	4.147	683	1175	BB	0.012	1.5375
12	4.272	278	518	BB	0.013	0.6260
13	4.362	22655	46332	BB	0.008	51.0289
14	4.396	149	273	BB	0.009	0.3355
15	4.663	171	151	BB	0.019	0.3844
16	4.724	293	368	BB	0.013	0.6593
17	5.129	220	296	BB	0.017	0.4961

Total area = 44397

Last modified 1/2/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\013F0401.D						
Operator	: mwdl			Page Number		: 1	
Instrument	: GC #6			Vial Number		: 13	
Sample Name	: 50ppm dx 44-94			Injection Number		: 1	
Run Time Bar Code:				Sequence Line		: 4	
Acquired on	42004	0.5708333					
Report Created on: 02 Jan 15 10:07 AM				Analysis Method		: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>5.50	<5.55	0	1.00E+05		2/1/11	
Pentacosane							
0	>4.22	<4.31	278	1.09E+05		12/31/14	
o-Terphenyl							
1	>3.46	<3.54	936	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
49	>1.6	<4.22	4.83E+05	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
48	>1.6	<6.0	490789	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
1	>4.22	<6.0	7688	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
27	>3.0	<6.0	235740	8.73E+03		12/31/14	
C12-C24							
0	>5.7	<10.45	3852	9.42E+03		9/25/06	
Stoddard, start C8 - end C11							
44	>0.9	<3.0	306455	6.96E+03		1/8/13	
Kerosene, start C8 - end C20							
80	>0.9	<4.22	534507	6.65E+03		1/10/13	
C24-C38							
0	>10.45	<19.8	-278	9.42E+03		1/27/11	



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\014F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 14
Sample Name	: 100ppm dx 44-94	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Dec 14 01:53 PM	Instrument Method	: DX1.MTH
Report Created on:	02 Jan 15 10:07 AM	Analysis Method	: DX1.MTH

Area Percent Report

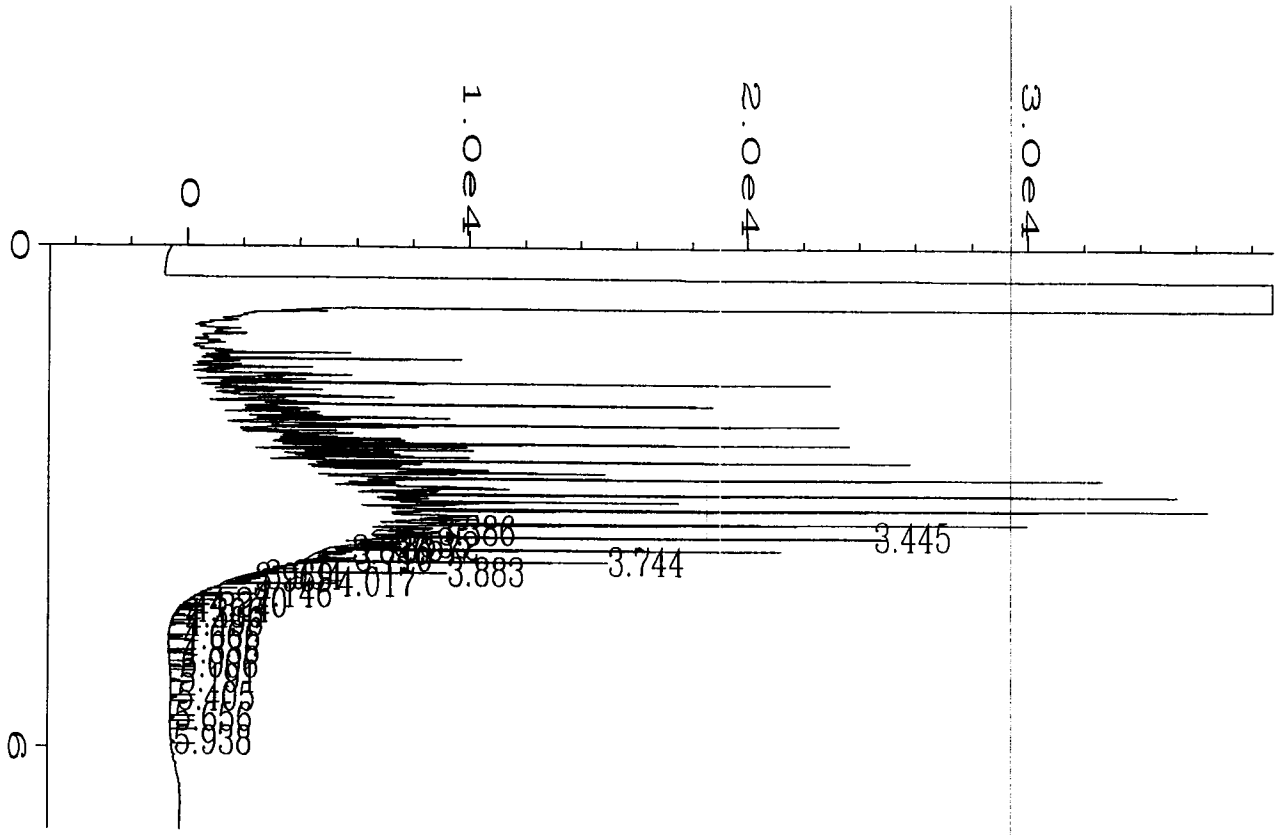
Data File Name : C:\HPCHEM\6\DATA\12-31-14\014F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 100ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:53 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\014F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.28219E+009	1.01892E+008	BVA	0.210	99.9159
2	1.252	81145	10011	VVA	0.135	0.0063
3	2.302	516232	33369	VVA	0.258	0.0402
4	3.612	474866	36372	VVA	0.218	0.0370
5	5.112	2327	1335	VV +	0.000	0.0002
6	6.490	4765	176	PB +	0.000	0.0004

Total area = 1.28327E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\014R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 100ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 01:53 PM
Report Created on: 02 Jan 15 10:07 AM

Page Number : 1
Vial Number : 14
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\014R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.386	3162	2366	BB	0.022	6.9361
2	3.445	10626	20028	BB	0.009	23.3128
3	3.535	1350	1148	BB	0.018	2.9612
4	3.572	2447	2318	BB	0.018	5.3674
5	3.626	8473	1137	BB	0.124	18.5885
6	3.710	3028	1733	BB	0.026	6.6429
7	3.744	5243	11338	BB	0.008	11.5032
8	3.883	3320	6979	BB	0.012	7.2845
9	3.934	784	811	BB	0.016	1.7199
10	3.969	684	885	BB	0.013	1.5005
11	4.017	1965	4202	BB	0.008	4.3115
12	4.146	1353	2009	BB	0.011	2.9686
13	4.270	495	969	BB	0.014	1.0869
14	4.324	307	538	BB	0.010	0.6734
15	4.396	257	424	BB	0.010	0.5636
16	4.496	299	528	BB	0.009	0.6560
17	4.666	382	523	BB	0.012	0.8377
18	4.836	301	481	BB	0.010	0.6593
19	5.006	256	404	BB	0.011	0.5613
20	5.191	293	335	BB	0.014	0.6435

21	5.405	254	248	BB	0.016	0.5581
22	5.656	188	161	BB	0.019	0.4118
23	5.938	115	117	BB	0.016	0.2515

Total area = 45581

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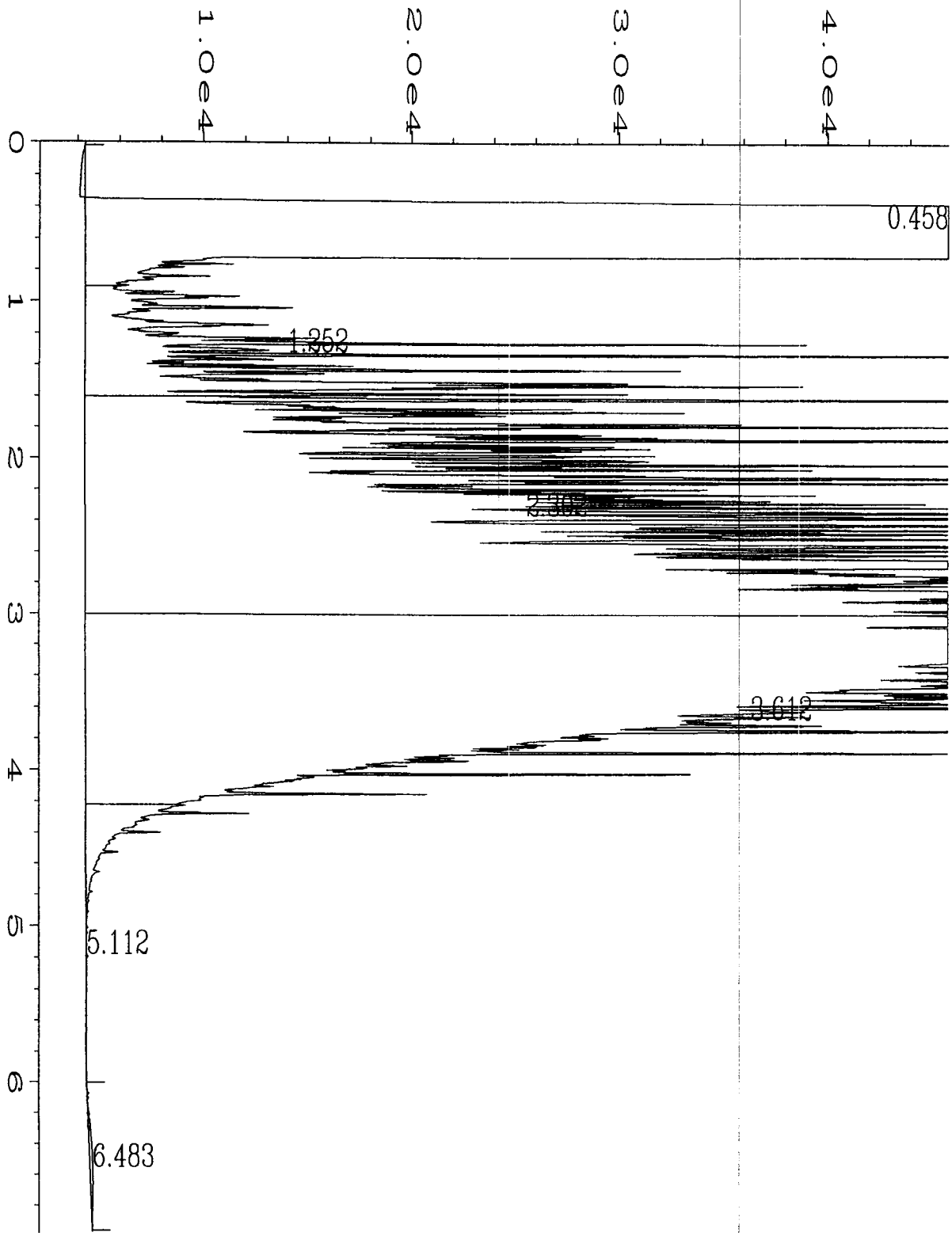
Last modified 1/2/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\014F0401.D						
Operator	: mwdl			Page Number		: 1	
Instrument	: GC #6			Vial Number		: 14	
Sample Name	: 100ppm dx 44-94			Injection Number		: 1	
Run Time Bar Code:				Sequence Line		: 4	
Acquired on	42004	0.5784722					
Report Created on: 02 Jan 15 10:07 AM				Analysis Method		: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>5.50	<5.55	0	1.00E+05		2/1/11	
Pentacosane							
0	>4.22	<4.31	495	1.09E+05		12/31/14	
o-Terphenyl							
1	>3.46	<3.54	1350	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
100	>1.6	<4.22	9.90E+05	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
98	>1.6	<6.0	991580	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
0	>4.22	<6.0	1832	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
54	>3.0	<6.0	475348	8.73E+03		12/31/14	
C12-C24							
0	>5.7	<10.45	3415	9.42E+03		9/25/06	
Stoddard, start C8 - end C11							
86	>0.9	<3.0	597377	6.96E+03		1/8/13	
Kerosene, start C8 - end C20							
161	>0.9	<4.22	1070893	6.65E+03		1/10/13	
C24-C38							
0	>10.45	<19.8	-495	9.42E+03		1/27/11	



Data File Name : C:\HPCHEM\6\DATA\12-31-14\015F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 500ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:04 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Area Percent Report

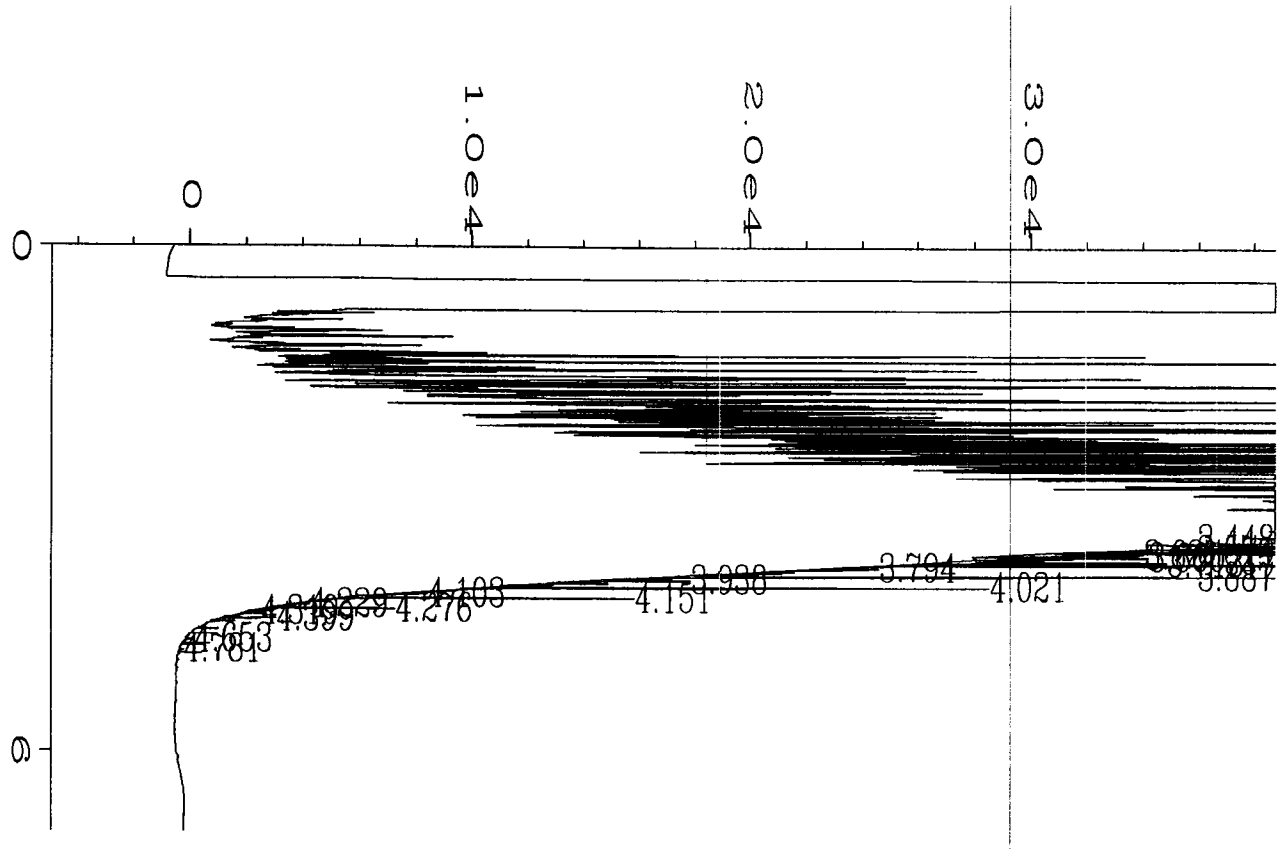
Data File Name : C:\HPCHEM\6\DATA\12-31-14\015F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 500ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:04 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\015F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.35575E+009	1.03857E+008	BVA	0.218	99.5814
2	1.252	315083	52458	VVA	0.100	0.0231
3	2.302	2725745	177456	VV +	0.000	0.2002
4	3.612	2604237	186747	VVA	0.232	0.1913
5	5.112	49620	7764	VV +	0.000	0.0036
6	6.483	4398	169	PB +	0.000	0.0003

Total area = 1.36145E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\015R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 500ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:04 PM
Report Created on: 02 Jan 15 10:08 AM

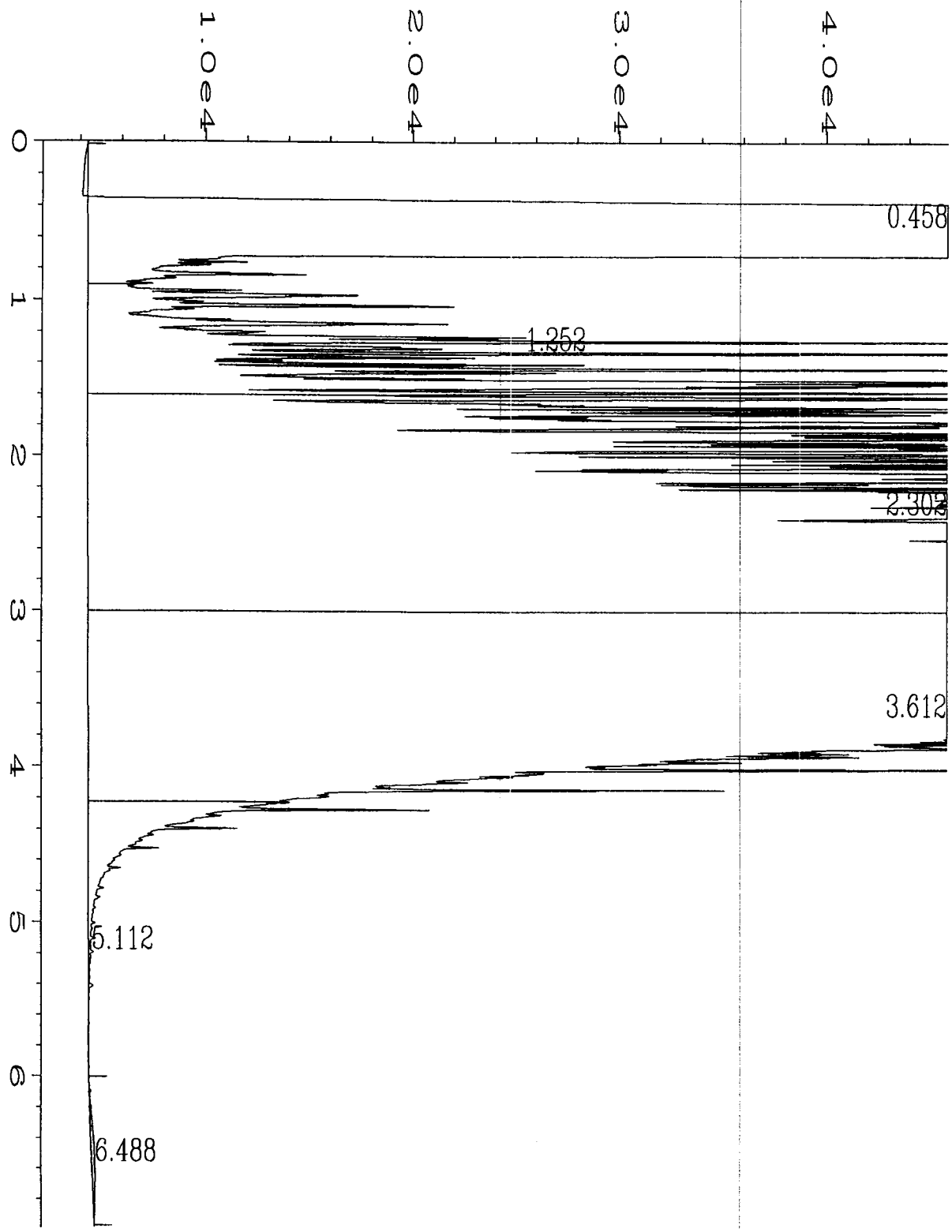
Page Number : 1
Vial Number : 15
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\015R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.448	57385	104704	BB	0.009	26.9399
2	3.574	18483	13273	BB	0.022	8.6768
3	3.627	44137	5316	BB	0.138	20.7205
4	3.660	4679	6264	BB	0.012	2.1966
5	3.713	8392	8506	BB	0.018	3.9396
6	3.747	28326	61075	BB	0.008	13.2978
7	3.794	3245	2674	BB	0.020	1.5234
8	3.887	19790	37297	BB	0.012	9.2907
9	3.938	4105	4092	BB	0.017	1.9273
10	4.021	10523	19418	BB	0.009	4.9402
11	4.103	2586	1341	BB	0.032	1.2140
12	4.151	5670	10780	BB	0.009	2.6618
13	4.229	1106	646	BB	0.029	0.5193
14	4.276	2768	4811	BB	0.015	1.2994
15	4.319	358	522	BB	0.011	0.1682
16	4.399	1145	2077	BB	0.015	0.5377
17	4.653	202	313	BB	0.014	0.0949
18	4.781	111	177	BB	0.010	0.0520

Total area = 213011

Last modified 1/2/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\015F0401.D						
Operator	: mwdl				Page Number	: 1	
Instrument	: GC #6				Vial Number	: 15	
Sample Name	: 500ppm dx 44-94				Injection Number	: 1	
Run Time Bar Code:					Sequence Line	: 4	
Acquired on	42004	0.5861111					
Report Created on: 02 Jan 15 10:08 AM					Analysis Method	: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>5.50	<5.55	0	1.00E+05		2/1/11	
Pentacosane							
3	>4.22	<4.31	2768	1.09E+05		12/31/14	
o-Terphenyl							
0	>3.46	<3.54	0	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
537	>1.6	<4.22	5.33E+06	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
529	>1.6	<6.0	5376834	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
7	>4.22	<6.0	46852	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
304	>3.0	<6.0	2651089	8.73E+03		12/31/14	
C12-C24							
0	>5.7	<10.45	4398	9.42E+03		9/25/06	
Stoddard, start C8 - end C11							
437	>0.9	<3.0	3040828	6.96E+03		1/8/13	
Kerosene, start C8 - end C20							
849	>0.9	<4.22	5645065	6.65E+03		1/10/13	
C24-C38							
0	>10.45	<19.8	-2768	9.42E+03		1/27/11	



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\016F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 16
Sample Name	: 1000ppm dx 44-94	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Dec 14 02:14 PM	Instrument Method	: DX1.MTH
Report Created on:	02 Jan 15 10:08 AM	Analysis Method	: DX1.MTH

Area Percent Report

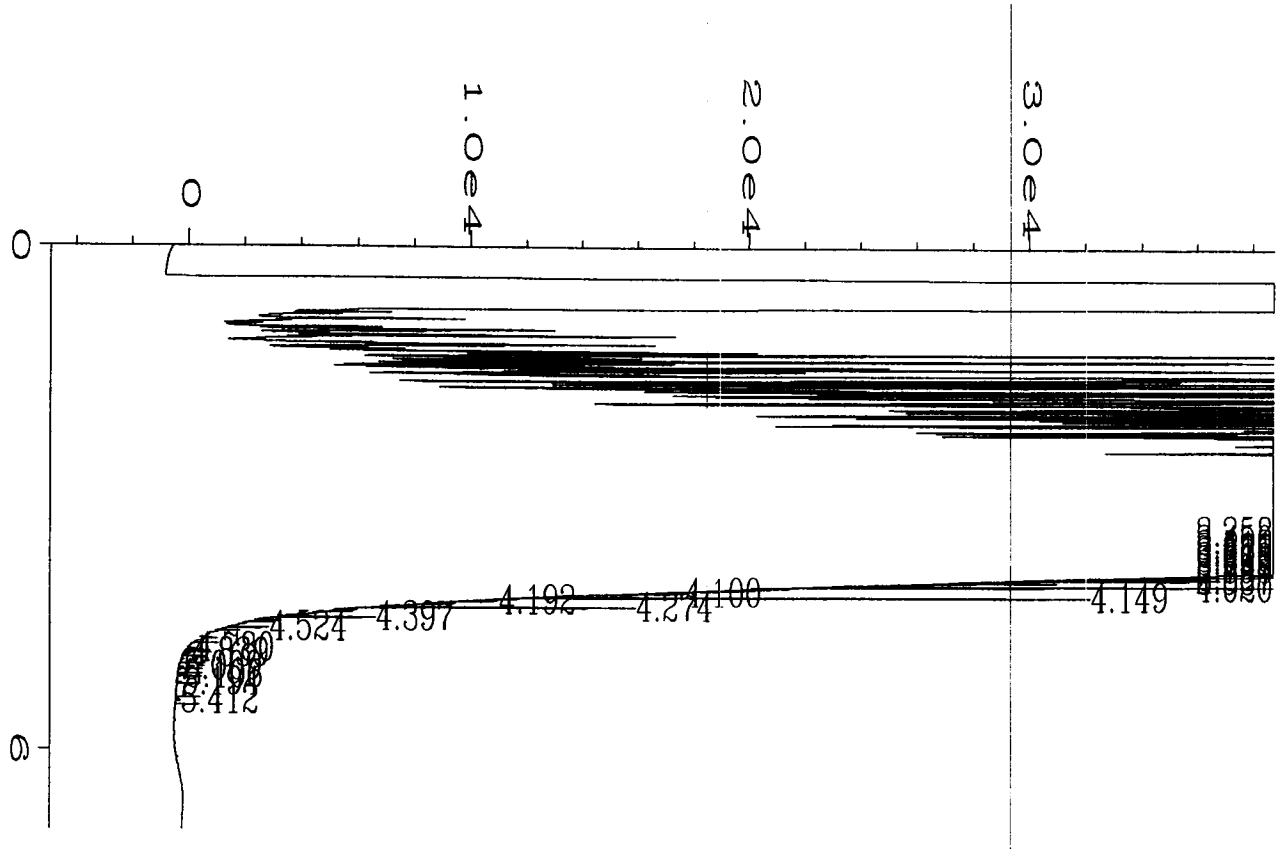
Data File Name : C:\HPCHEM\6\DATA\12-31-14\016F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:14 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\016F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.349E+009	1.0393E+008	BVA	0.216	99.1576
2	1.252	611157	108353	VVA	0.094	0.0449
3	2.302	5500475	350966	VVA	0.261	0.4043
4	3.612	5232545	335234	VVA	0.260	0.3846
5	5.112	111890	16398	VB +	0.000	0.0082
6	6.488	4484	168	BB +	0.000	0.0003

Total area = 1.36046E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\016R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:14 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 16
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\016R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.358	16857	11446	BB	0.025	3.9684
2	3.450	115618	212385	BB	0.009	27.2181
3	3.511	184	12856	BB	0.000	0.0433
4	3.539	14945	12695	BB	0.018	3.5183
5	3.576	23128	22507	BB	0.016	5.4446
6	3.602	74172	161183	BB	0.008	17.4612
7	3.660	11047	10650	BB	0.018	2.6006
8	3.695	3036	4577	BB	0.011	0.7146
9	3.747	65111	118475	BB	0.009	15.3280
10	3.793	8068	6212	BB	0.022	1.8992
11	3.887	38743	73487	BB	0.012	9.1207
12	3.937	7479	7716	BB	0.016	1.7607
13	4.020	20472	41786	BB	0.008	4.8193
14	4.100	4660	2348	BB	0.033	1.0970
15	4.149	10941	21131	BB	0.009	2.5757
16	4.192	1026	1151	BB	0.015	0.2415
17	4.274	5641	9854	BB	0.016	1.3280
18	4.397	1722	3502	BB	0.015	0.4053
19	4.524	803	1529	BB	0.009	0.1889
20	4.780	183	311	BB	0.010	0.0430

21	4.839	269	255	BB	0.018	0.0632
22	5.009	128	195	BB	0.011	0.0301
23	5.106	172	263	BB	0.011	0.0405
24	5.194	144	171	BB	0.014	0.0339
25	5.412	236	186	BB	0.019	0.0556

Total area = 424782

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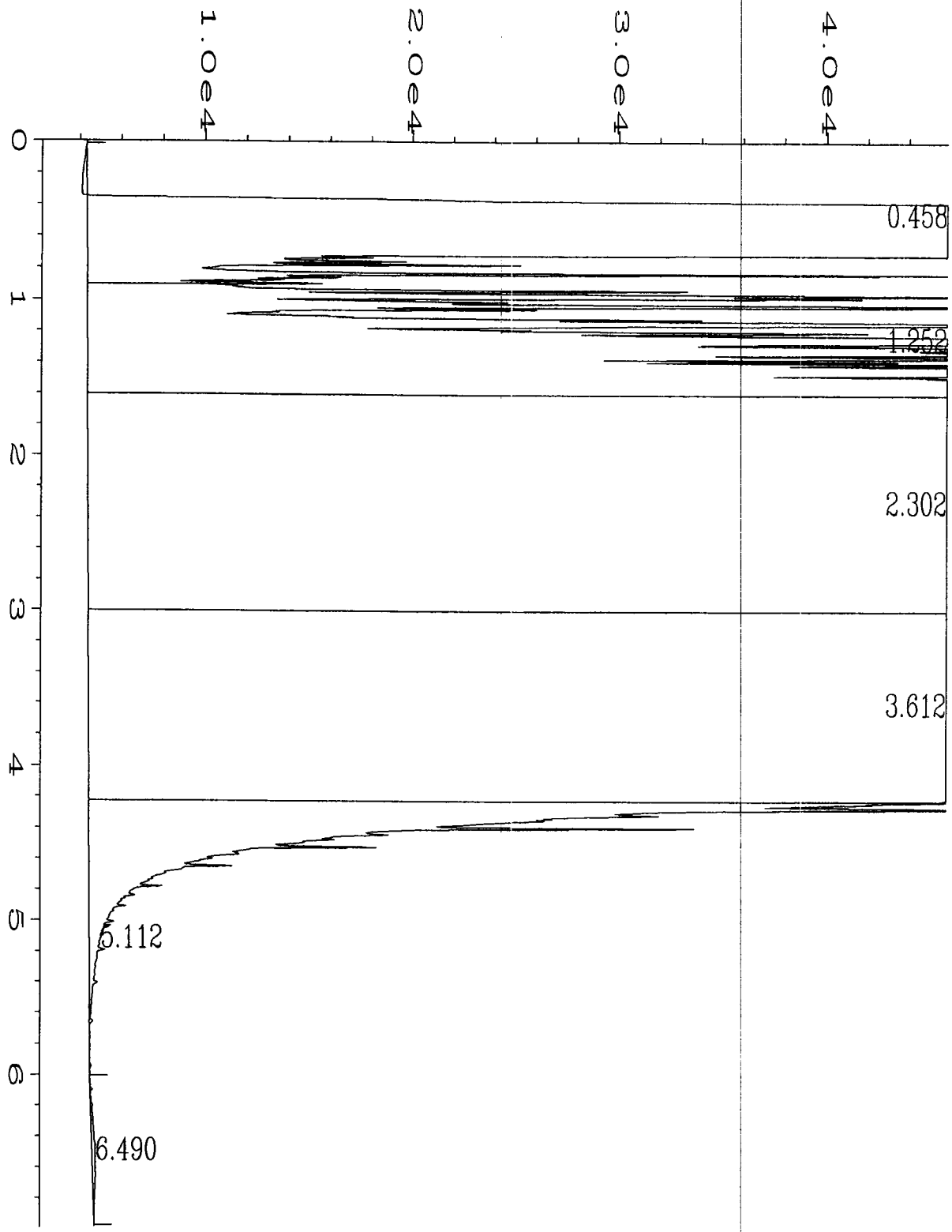
Last modified 1/2/15 mwdl			TPHDSL.XLS			
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\016F0401.D					
Operator	: mwdl			Page Number	: 1	
Instrument	: GC #6			Vial Number	: 16	
Sample Name	: 1000ppm dx 44-94			Injection Number	: 1	
Run Time Bar Code:				Sequence Line	: 4	
Acquired on	42004	0.5930556				
Report Created on: 02 Jan 15 10:08 AM				Analysis Method	: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**		
Triacontane					Calibrated	
0	>5.50	<5.55	0	1.00E+05	2/1/11	
Pentacosane						
5	>4.22	<4.31	5641	1.09E+05	12/31/14	
o-Terphenyl						
12	>3.46	<3.54	14945	1.24E+05	12/31/14	
Results			Area	Resp. factor	Calibrated	
Diesel, start C10 - start C25						
1081	>1.6	<4.22	1.07E+07	9.92E+03	12/31/14	
NWTPH-DX, start C10 - end C36						
1065	>1.6	<6.0	10824324	1.02E+04	12/31/14	
Motor Oil, start C25 - end C36						
16	>4.22	<6.0	106249	6.49E+03	12/31/14	
Heavy Oil, start C17 - end C36						
610	>3.0	<6.0	5323849	8.73E+03	12/31/14	
C12-C24						
-1	>5.7	<10.45	-10461	9.42E+03	9/25/06	
Stoddard, start C8 - end C11						
878	>0.9	<3.0	6111632	6.96E+03	1/8/13	
Kerosene, start C8 - end C20						
1705	>0.9	<4.22	11329232	6.65E+03	1/10/13	
C24-C38						
-1	>10.45	<19.8	-5641	9.42E+03	1/27/11	



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\017F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 17
Sample Name	: 5000ppm dx 44-94	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Dec 14 02:25 PM	Instrument Method	: DX1.MTH
Report Created on:	02 Jan 15 10:08 AM	Analysis Method	: DX1.MTH

Area Percent Report

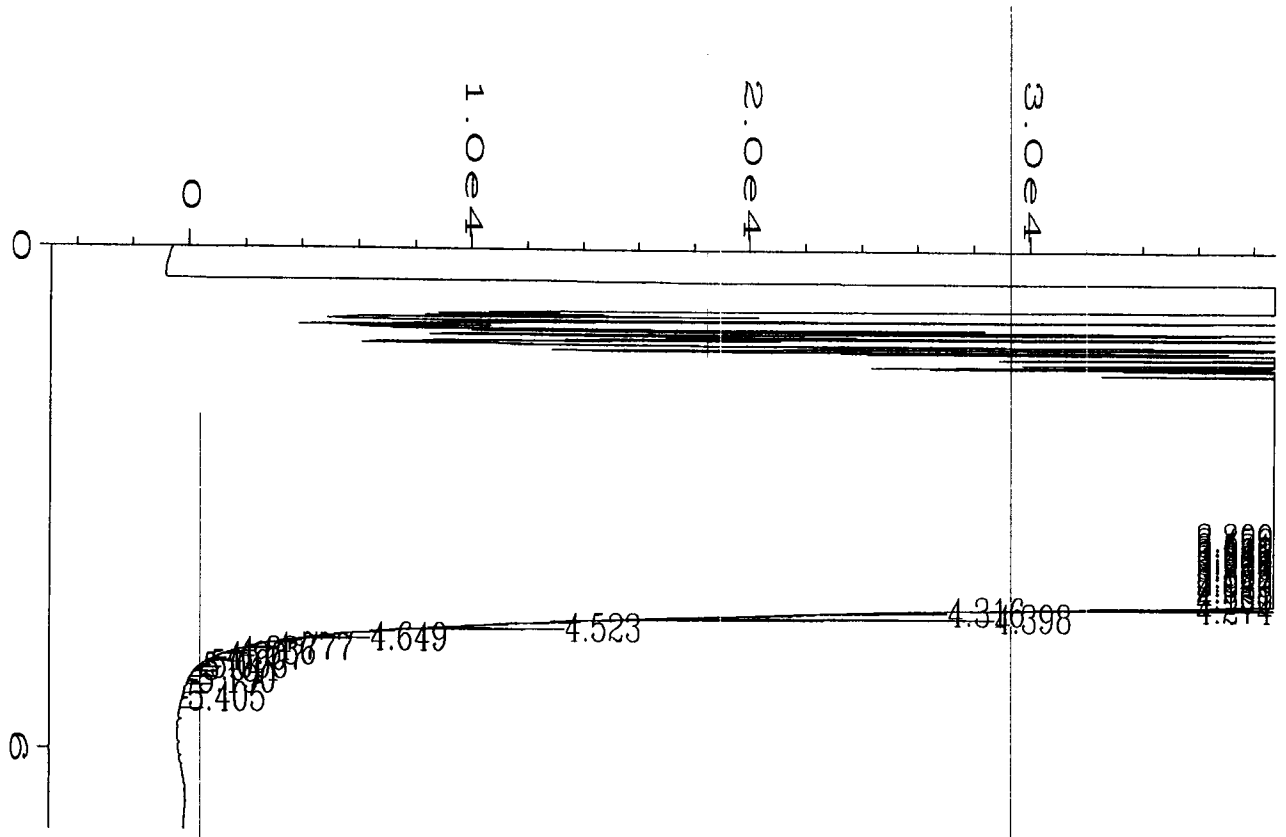
Data File Name : C:\HPCHEM\6\DATA\12-31-14\017F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 5000ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:25 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\017F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.28418E+009	1.03968E+008	BVA	0.206	96.1284
2	1.252	2664652	417790	VVA	0.106	0.1995
3	2.302	2.47702E+007	1123975	VV +	0.000	1.8542
4	3.612	2.3781E+007	1076733	VVA	0.368	1.7802
5	5.112	499814	62318	VVA	0.134	0.0374
6	6.490	4922	174	PB +	0.000	0.0004

Total area = 1.3359E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\017R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 5000ppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:25 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 17
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\017R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.399	71683	68797	BB	0.017	5.1889
2	3.459	368684	609073	BB	0.010	26.6876
3	3.521	5114	36279	BB	0.002	0.3701
4	3.549	36882	40881	BB	0.015	2.6697
5	3.583	41298	78013	BB	0.009	2.9894
6	3.611	231364	420661	BB	0.009	16.7475
7	3.636	18345	27353	BB	0.011	1.3279
8	3.667	36008	40325	BB	0.015	2.6065
9	3.720	50688	40729	BB	0.021	3.6691
10	3.754	180741	359324	BB	0.008	13.0831
11	3.835	25548	10112	BB	0.042	1.8493
12	3.892	132150	224158	BB	0.014	9.5658
13	3.940	20739	26423	BB	0.013	1.5012
14	4.023	80165	142449	BB	0.009	5.8028
15	4.101	12543	4014	BB	0.052	0.9080
16	4.150	33745	66962	BB	0.011	2.4427
17	4.274	19145	32320	BB	0.010	1.3858
18	4.316	2465	3746	BB	0.011	0.1784
19	4.398	8307	13750	BB	0.010	0.6013
20	4.523	2448	5356	BB	0.012	0.1772

21	4.649	1281	2394	BB	0.012	0.0928
22	4.777	393	1091	BB	0.006	0.0284
23	4.836	260	423	BB	0.010	0.0189
24	4.907	472	525	BB	0.015	0.0341
25	5.006	380	403	BB	0.016	0.0275
26	5.041	194	276	BB	0.012	0.0141
27	5.190	263	356	BB	0.016	0.0190
28	5.405	178	196	BB	0.014	0.0129

Total area = 1381482

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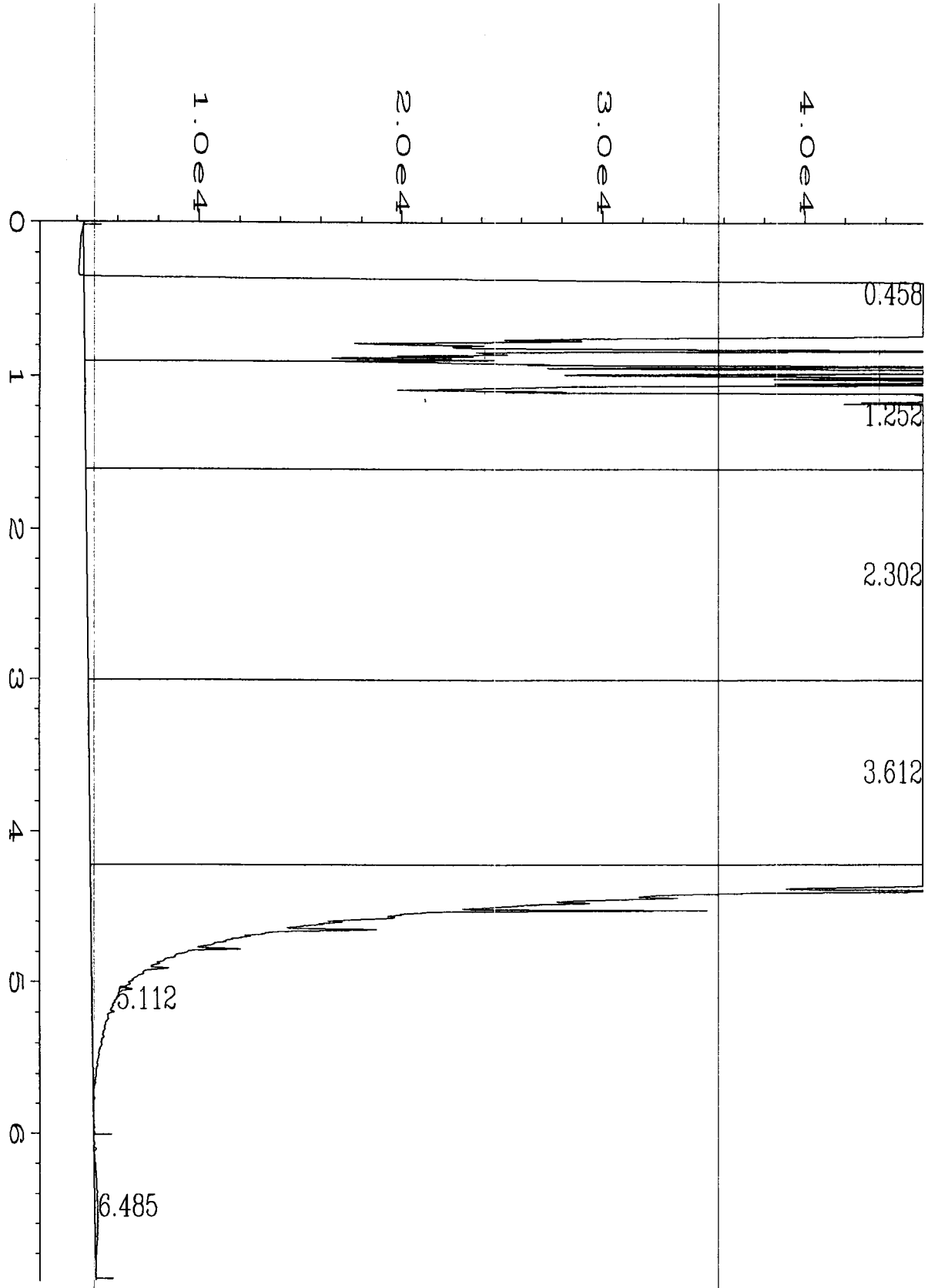
Last modified 1/2/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\017F0401.D						
Operator	: mwdl			Page Number	:	1	
Instrument	: GC #6			Vial Number	:	17	
Sample Name	: 5000ppm dx 44-94			Injection Number	:	1	
Run Time Bar Code:				Sequence Line	:	4	
Acquired on	42004	0.6006944					
Report Created on: 02 Jan 15 10:08 AM				Analysis Method	:	DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>5.50	<5.55	0	1.00E+05		2/1/11	
Pentacosane							
18	>4.22	<4.31	19145	1.09E+05		12/31/14	
o-Terphenyl							
4	>3.46	<3.54	5114	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
4895	>1.6	<4.22	4.85E+07	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
4822	>1.6	<6.0	49026755	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
74	>4.22	<6.0	480669	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
2778	>3.0	<6.0	24256555	8.73E+03		12/31/14	
C12-C24							
0	>5.7	<10.45	-192	9.42E+03		9/25/06	
Stoddard, start C8 - end C11							
3940	>0.9	<3.0	27434852	6.96E+03		1/8/13	
Kerosene, start C8 - end C20							
7706	>0.9	<4.22	51210738	6.65E+03		1/10/13	
C24-C38							
-2	>10.45	<19.8	-19145	9.42E+03		1/27/11	



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\018F0401.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 18
Sample Name	: 10kppm dx 44-94	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 31 Dec 14 02:36 PM	Instrument Method	: DX1.MTH
Report Created on	: 02 Jan 15 10:08 AM	Analysis Method	: DX1.MTH

Area Percent Report

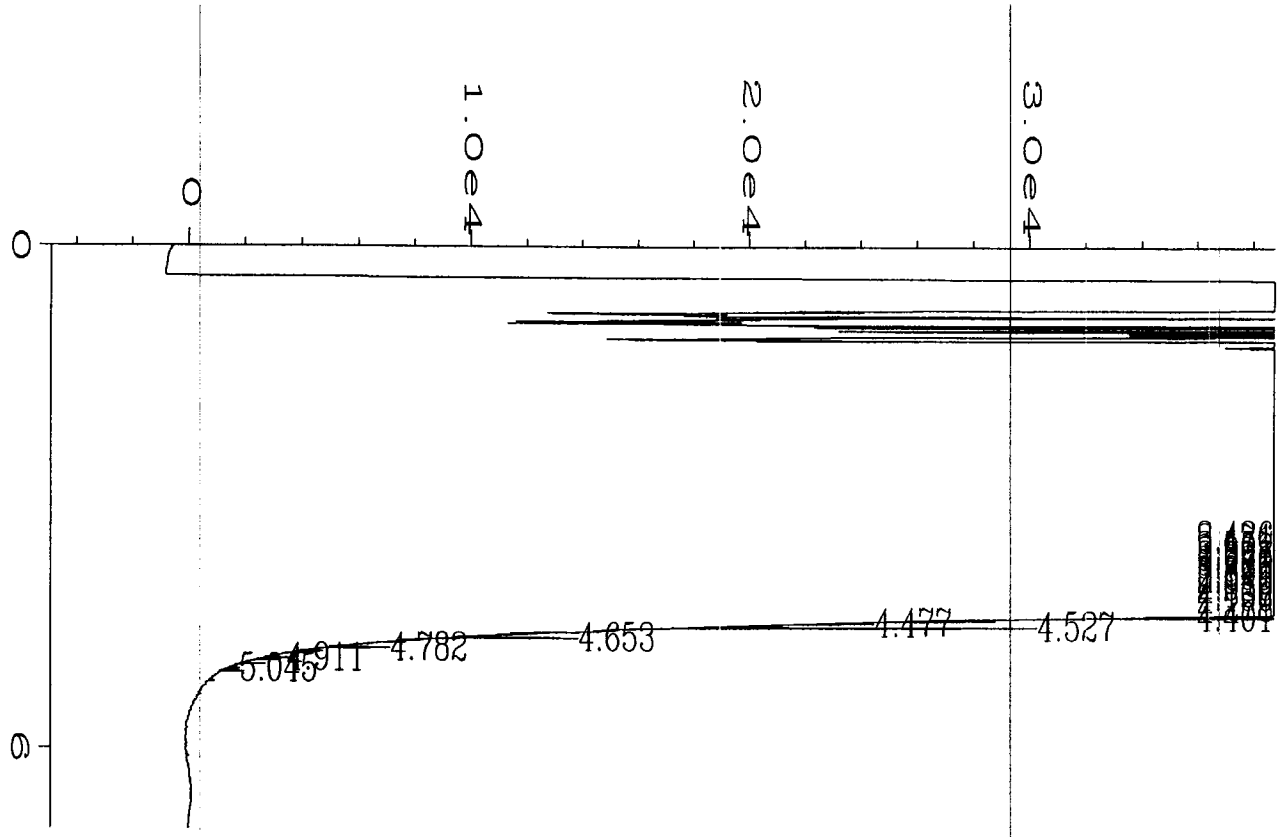
Data File Name : C:\HPCHEM\6\DATA\12-31-14\018F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 10kppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:36 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\018F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.3163E+009	1.02129E+008	BV +	0.000	92.3536
2	1.252	5529787	564346	VVA	0.163	0.3880
3	2.302	5.22691E+007	1751690	VVA	0.497	3.6673
4	3.612	5.01198E+007	1816481	VVA	0.460	3.5165
5	5.112	1059745	125186	VVA	0.141	0.0744
6	6.485	4857	166	PB +	0.000	0.0003

Total area = 1.42528E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\018R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 10kppm dx 44-94
Run Time Bar Code:
Acquired on : 31 Dec 14 02:36 PM
Report Created on: 02 Jan 15 10:08 AM

Page Number : 1
Vial Number : 18
Injection Number : 1
Sequence Line : 4
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\018R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.436	174409	115811	BB	0.025	6.1519
2	3.471	772046	774659	BB	0.015	27.2324
3	3.557	178684	90503	BB	0.028	6.3027
4	3.591	92602	123614	BB	0.012	3.2664
5	3.621	417669	640784	BB	0.011	14.7325
6	3.675	44790	38103	BB	0.020	1.5799
7	3.730	125471	128521	BB	0.016	4.4257
8	3.763	367072	580709	BB	0.011	12.9478
9	3.845	50905	32898	BB	0.026	1.7956
10	3.871	32555	49644	BB	0.011	1.1483
11	3.899	219870	414546	BB	0.009	7.7555
12	3.946	39894	46215	BB	0.014	1.4072
13	4.030	157721	278998	BB	0.009	5.5633
14	4.107	19178	9133	BB	0.035	0.6765
15	4.156	75377	137044	BB	0.009	2.6588
16	4.278	38755	66550	BB	0.010	1.3670
17	4.401	13060	26700	BB	0.008	0.4607
18	4.477	4227	2380	BB	0.030	0.1491
19	4.527	6093	13717	BB	0.007	0.2149
20	4.653	2710	4580	BB	0.015	0.0956

21	4.782	837	2248	BB	0.011	0.0295
22	4.911	642	1009	BB	0.011	0.0226
23	5.045	457	456	BB	0.015	0.0161

Total area = 2835025

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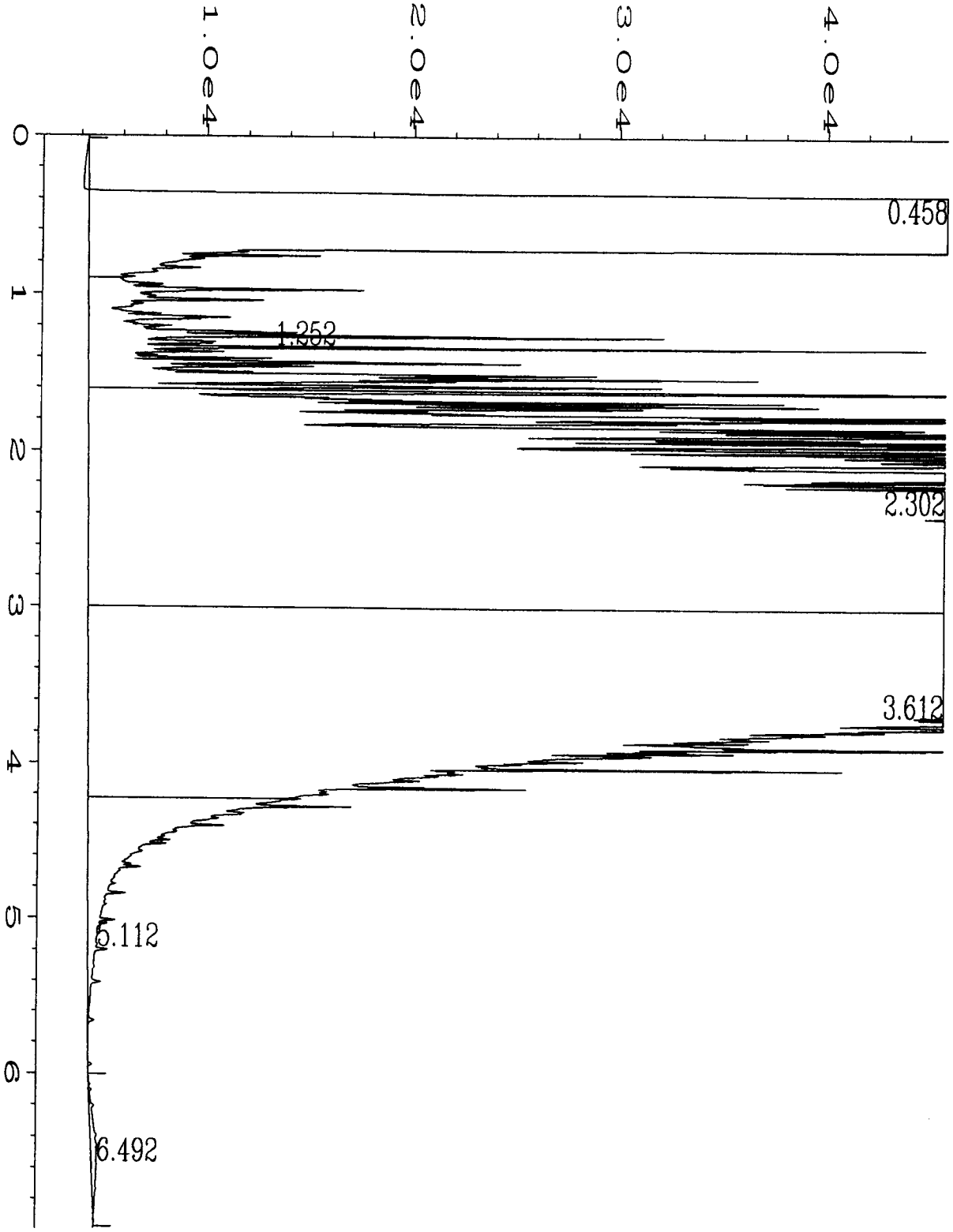
Last modified 1/2/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\018F0401.D						
Operator	: mwdl			Page Number	:	1	
Instrument	: GC #6			Vial Number	:	18	
Sample Name	: 10kppm dx 44-94			Injection Number	:	1	
Run Time Bar Code:				Sequence Line	:	4	
Acquired on	42004	0.6083333					
Report Created on: 02 Jan 15 10:08 AM				Analysis Method	:	DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>5.50	<5.55	0	1.00E+05		2/1/11	
Pentacosane							
36	>4.22	<4.31	38755	1.09E+05		12/31/14	
o-Terphenyl							
625	>3.46	<3.54	772046	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
10247	>1.6	<4.22	1.02E+08	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
10094	>1.6	<6.0	########	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
157	>4.22	<6.0	1020990	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
5768	>3.0	<6.0	50368744	8.73E+03		12/31/14	
C12-C24							
-81	>5.7	<10.45	-767189	9.42E+03		9/25/06	
Stoddard, start C8 - end C11							
8300	>0.9	<3.0	57798887	6.96E+03		1/8/13	
Kerosene, start C8 - end C20							
16123	>0.9	<4.22	########	6.65E+03		1/10/13	
C24-C38							
-4	>10.45	<19.8	-38755	9.42E+03		1/27/11	



Data File Name	: C:\HPCHEM\6\DATA\12-31-14\019F0601.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 19
Sample Name	: 1000 dx2' 43-120	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 6
Acquired on	: 31 Dec 14 02:59 PM	Instrument Method	: DX1.MTH
Report Created on	: 02 Jan 15 10:09 AM	Analysis Method	: DX1.MTH

Area Percent Report

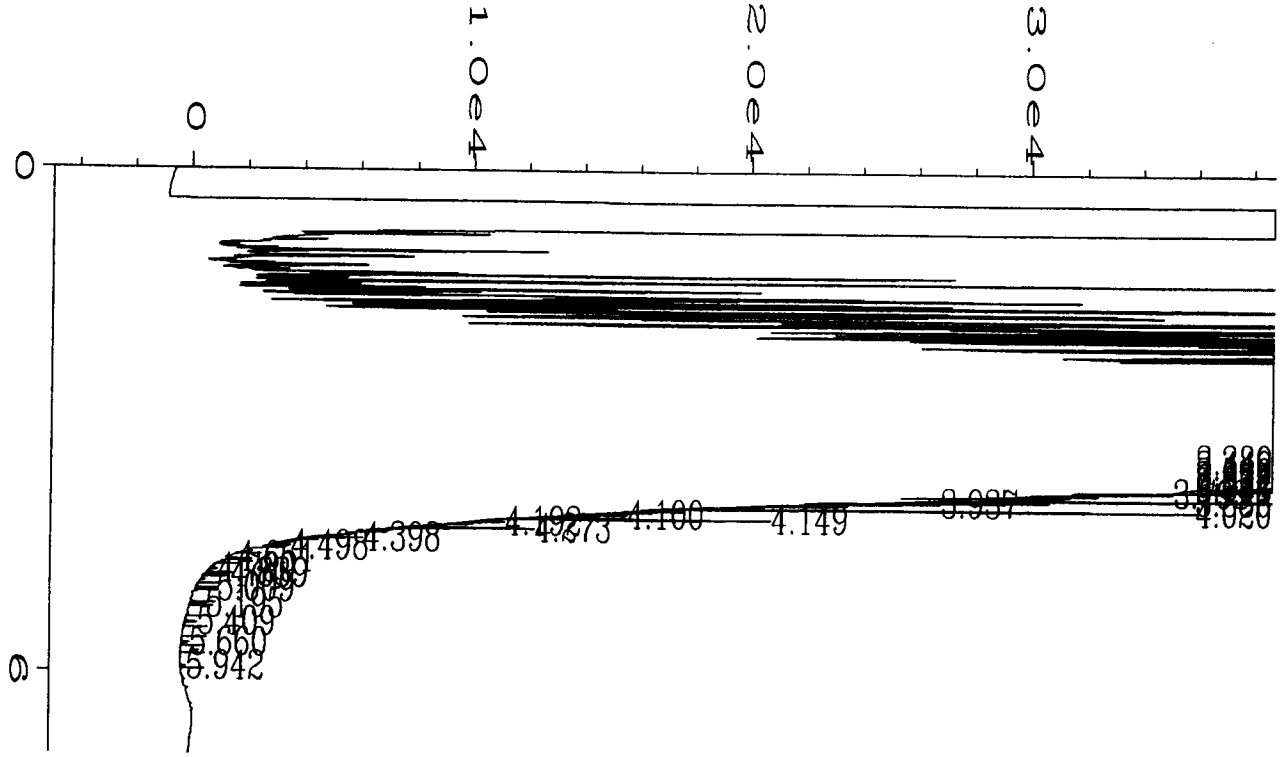
Data File Name : C:\HPCHEM\6\DATA\12-31-14\019F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 dx2' 43-120
Run Time Bar Code:
Acquired on : 31 Dec 14 02:59 PM
Report Created on: 02 Jan 15 10:09 AM

Page Number : 1
Vial Number : 19
Injection Number : 1
Sequence Line : 6
Instrument Method: DX1.MTH
Analysis Method : DX1.MTH

Sig. 1 in C:\HPCHEM\6\DATA\12-31-14\019F0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.458	1.33556E+009	1.0329E+008	BVA	0.216	99.1847
2	1.252	271091	40456	VVA	0.112	0.0201
3	2.302	6230004	351370	VV +	0.000	0.4627
4	3.612	4312172	288842	VVA	0.249	0.3202
5	5.112	156675	12590	VV +	0.000	0.0116
6	6.492	8286	303	PB +	0.000	0.0006

Total area = 1.34654E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\12-31-14\019R0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 dx2' 43-120
Run Time Bar Code:
Acquired on : 31 Dec 14 02:59 PM
Report Created on: 02 Jan 15 10:09 AM

Page Number : 1
Vial Number : 19
Injection Number : 1
Sequence Line : 6
Instrument Method: DX1.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\12-31-14\019R0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.389	20683	17867	BB	0.019	5.9278
2	3.449	93820	142432	BB	0.016	26.8883
3	3.539	43220	43727	BB	0.016	12.3866
4	3.574	19924	23061	BB	0.014	5.7100
5	3.622	45309	6241	BB	0.121	12.9854
6	3.657	5403	8569	BB	0.011	1.5484
7	3.714	21593	21804	BB	0.017	6.1886
8	3.746	42615	76512	BB	0.009	12.2132
9	3.793	2439	2716	BB	0.015	0.6991
10	3.886	16688	35914	BB	0.008	4.7828
11	3.937	6357	4000	BB	0.026	1.8218
12	4.020	11428	20170	BB	0.009	3.2751
13	4.100	4379	2083	BB	0.035	1.2551
14	4.149	5008	9842	BB	0.008	1.4353
15	4.192	1550	1352	BB	0.019	0.4442
16	4.273	3674	5072	BB	0.017	1.0528
17	4.398	1213	2033	BB	0.010	0.3475
18	4.498	747	837	BB	0.015	0.2141
19	4.651	119	344	BB	0.006	0.0340
20	4.780	176	271	BB	0.014	0.0505

21	4.839	577	943	BB	0.014	0.1654
22	5.009	553	777	BB	0.012	0.1586
23	5.195	443	608	BB	0.012	0.1269
24	5.409	458	456	BB	0.022	0.1313
25	5.660	322	289	BB	0.022	0.0923
26	5.942	227	201	BB	0.018	0.0650

Total area = 348925

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Last modified 1/2/15 mwdl			TPHDSL.XLS			
Data File Name	: C:\HPCHEM\6\DATA\12-31-14\019F0601.D					
Operator	: mwdl			Page Number	: 1	
Instrument	: GC #6			Vial Number	: 19	
Sample Name	: 1000 dx2' 43-120			Injection Number	: 1	
Run Time Bar Code:				Sequence Line	: 6	
Acquired on	42004	0.6243056				
Report Created on: 02 Jan 15 10:09 AM				Analysis Method	: DX1.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**		
Triacontane						Calibrated
0	>5.50	<5.55	0	1.00E+05		2/1/11
Pentacosane						
3	>4.22	<4.31	3674	1.09E+05		12/31/14
o-Terphenyl						
35	>3.46	<3.54	43220	1.24E+05		12/31/14
Results			Area	Resp. factor		Calibrated
Diesel, start C10 - start C25						
1059	>1.6	<4.22	1.05E+07	9.92E+03		12/31/14
NWTPH-DX, start C10 - end C36						
1048	>1.6	<6.0	10651957	1.02E+04		12/31/14
Motor Oil, start C25 - end C36						
24	>4.22	<6.0	153001	6.49E+03		12/31/14
Heavy Oil, start C17 - end C36						
506	>3.0	<6.0	4421953	8.73E+03		12/31/14
C12-C24						
-4	>5.7	<10.45	-34934	9.42E+03		9/25/06
Stoddard, start C8 - end C11						
934	>0.9	<3.0	6501095	6.96E+03		1/8/13
Kerosene, start C8 - end C20						
1621	>0.9	<4.22	10770047	6.65E+03		1/10/13
C24-C38						
0	>10.45	<19.8	-3674	9.42E+03		1/27/11

NWTPH-Dx
MDLs

F&B Project 506179

MDL Results GC6

SUMMARY

(Analyst: Do not enter anything in this worksheet. See instructions.)

SOIL

2 grams of soil extracted into 10 mL solvent no concentration

Analyte	(StdDev*2.998) MDL	(2*MDL) PQL	(5*MDL) PQL	Std Dev	Mean	Spike Level	% Rec.	Date Calculated	Reporting Limit
Diesel	4.62	9.2	23.1	1.54	11.8	13	94	02/10/15	50
Diesel extended	4.66	9.3	23.3	1.55	12.7	13	102	02/10/15	50
Motor Oil	9.4	18.8	47.1	3.14	41.6	50	83	02/10/15	250
Heavy Oil	10.2	20.3	50.8	3.39	43.4	50	87	02/10/15	250
Stoddard solvent	7.46	14.9	37.3	2.49	15.6	13	124	02/10/15	50

20 grams of soil extracted and concentrated into 10 mL solvent

Analyte	(StdDev*2.998) MDL	(2*MDL) PQL	(5*MDL) PQL	Std Dev	Mean	Spike Level	% Rec.	Date Calculated	Reporting Limit
Diesel	0.62	1.23	3.08	0.21	1.71	1.3	137	01/21/15	5
Diesel extended	0.80	1.60	4.00	0.27	1.91	1.3	152	01/21/15	5
Motor Oil	0.61	1.21	3.03	0.20	4.0	5.0	80	02/10/15	25
Heavy Oil	0.64	1.28	3.21	0.21	4.3	5.0	85	02/10/15	25
Stoddard Solvent	0.79	1.57	3.93	0.26	2.0	1	159	02/10/15	5
									500

WATER

Analyte	(StdDev*2.998) MDL	(2*MDL) PQL	(5*MDL) PQL	Std Dev	Mean	Spike Level	% Rec.	Date Calculated	Reporting Limit
Diesel	9.9	19.9	49.7	3.32	29.7	25	119	01/26/15	50
Diesel extended	10.9	21.9	54.7	3.65	30.2	25	121	01/26/15	250
Motor Oil	9.6	19.1	47.8	3.19	74.8	100	75	02/10/15	250
Heavy Oil	11.3	22.6	56.4	3.76	79.4	100	79	02/10/15	250
Stoddard solvent	9.1	18.3	45.7	3.05	28.8	25	115	02/10/15	50

NWTPH-Dx
Sequence Tables

F&B Project 506179

Sequence Table

Inj.	Seq. Line	Cal. Line	Method Name	From Vial	To Vial	Inj/ Vial
FRONT						
	1		BAKEOUT	1	1	2
	2		DX	2	3	1
	3		DX	6	27	1
	4		DX	4	5	1
	5		END	1	1	1
	6		DX	28	39	1
	7		DX	4	5	1
	8		DX	40	46	1
	9		DX	92	93	1
	10		DX	98	99	1
	11		END	1	1	1
REAR						
	1					

M 6/8

Sample Table

Vial Num.	Sample Name	Sample Amount	Multiplier	ISTD Amount
1	MeCl2			
2	500 MO 44-50D			
3	500 Dx 44-94C			
4	1000 MO 44-151B			
5	1000 Dx 44-172C			
6	506153-01			
7	506153-02			
8	506154-01			
9	506154-02			
10	506155-01			
11	506155-02			
12	506156-01			
13	506156-02			
14	506160-01			
15	506160-02			
16	506161-01			
17	506161-02			
18	506144-02 sg			
19	05-1067 mb sg			
20	05-1067 lcs sg			
21	506144-02 ms sg			
22	506144-02 md sg			
23	506143-02 sg			
24	506143-10 sg			
25	506143-12 sg			
26	506146-07 sg			
27	506146-08 sg			
28	05-1070 mb			
29	05-1070 lcs			
30	05-1070 lcsd			
31	506097-01			
32	506097-02			
33	506097-03			
34	506097-04			

Sample Table

Vial Num.	Sample Name	Sample Amount	Multiplier	ISTD Amount
35	506112-02			
36	506112-03			
37	506113-01			
38	506113-02			
39	506113-03			
40	506169-01			
41	506169-02			
42	506169-03			
43	506179-02			
44	506179-03			
45	506143-14			
46	506167-17			
92	500 MO 44-50D			
93	500 Dx 44-94C			
94	1000 MO 43-24D			
95	1000 Dx 44-94B			
96	HCIDs G/M 39-144			
97	HCIDs Dx 39-46			
98	HCIDw 35-175			
99	HCIDw 35-174			
100	WADF RT 42-181			

NWTPH-Dx
Checklists

F&B Project 506179

Diesel Summary Checklist for GC 6 Date 6/8

Day of Analysis/Morning Checklist	CCVs (Check if passed)
☐ QA 1 Processed ____ ☐ QA 2 Processed ____	☐ ☐ CCV 1 mo dx
☐ QA 3 Processed ____ ☐ QA 4 Processed ____	☐ ☐ CCV 2 mo dx
☐ Same Day Rush samples processed	☐ ☐ CCV 3 mo dx
☐ Pull/Check vials	☐ ☐ CCV 4 mo dx
☐ Check/Fill rinse vials and solvent	☐ ☐ CCV 5 mo dx
Y / N Did all Surrogates pass	☐ ☐ CCV 6 ____ ____

Data Processing	Data Review
Y / N Were all CCVs within 12 hours	Y / N Reintegrations calculated correctly
☐ Reintegrations marked and done	Y / N Excel Sheet Filled out correctly
☐ Cgrams printed	Y / N Headers Correct
☐ Excel Sheet filled out	Y / N Correct Matrix/Units
☐ Macro Run	Y / N Was EDD info added
☐ Part Reports finished/Ready for Review	Y / N Was QC calculated correctly

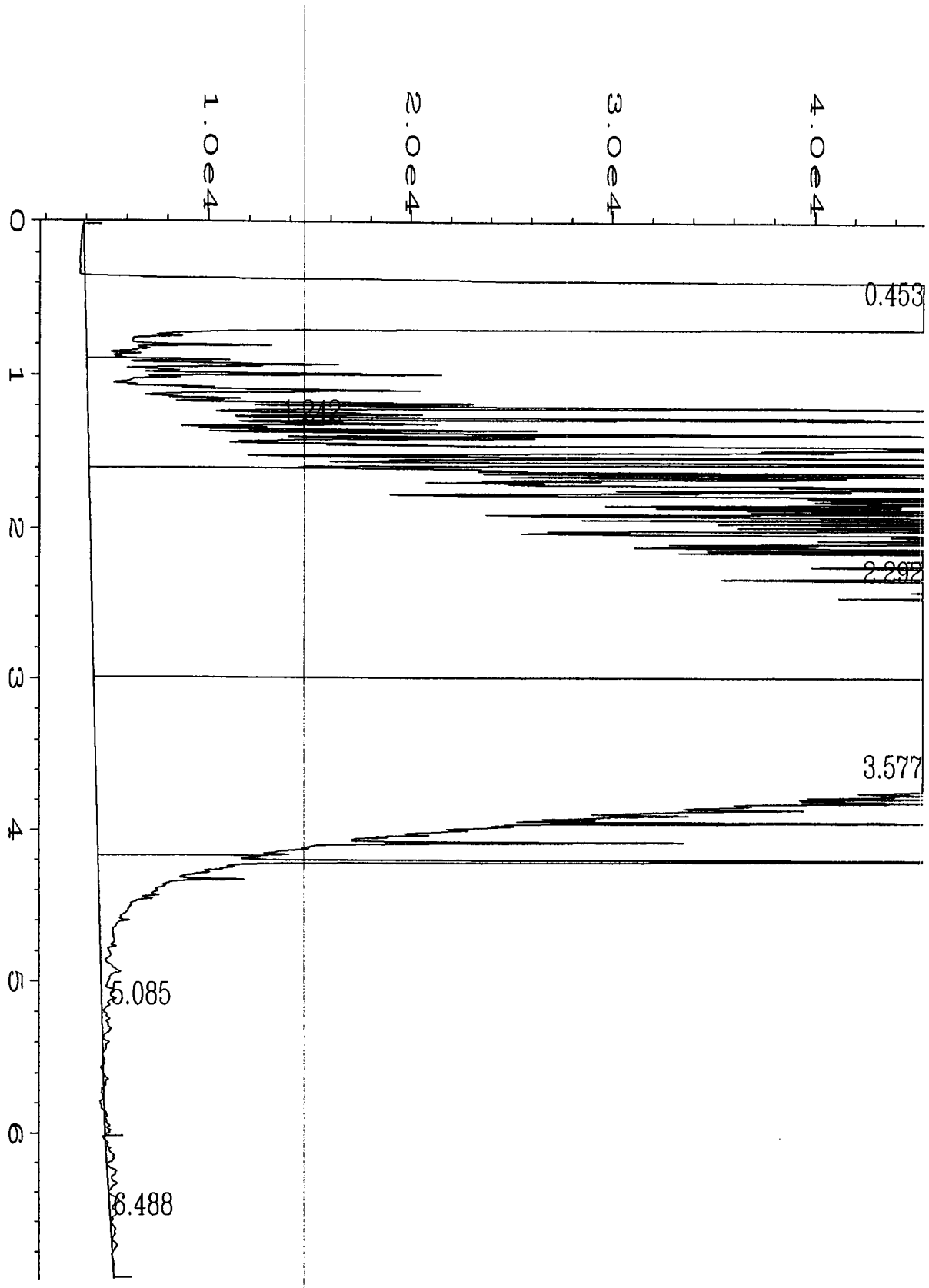
Same-Day Rush Samples	Samples to be Reanalyzed	Maintenance to be Done
____	____	☐ Change Liner
____	____	☐ Change Septa
____	____	☐ Clip Column
____	____	☐ ____
____	____	Symptom ____
____	____	____

Date/Time Finished Processing Data Pack 9a 6/9/15

Date/Time Finished Reviewing Data Pack ____

NWTPH-Dx
CCVs

F&B Project 506179



Data File Name : C:\HPCHEM\6\DATA\06-08-15\005F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 Dx 44-172C
Run Time Bar Code:
Acquired on : 08 Jun 15 02:31 PM
Report Created on: 08 Jun 15 02:42 PM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

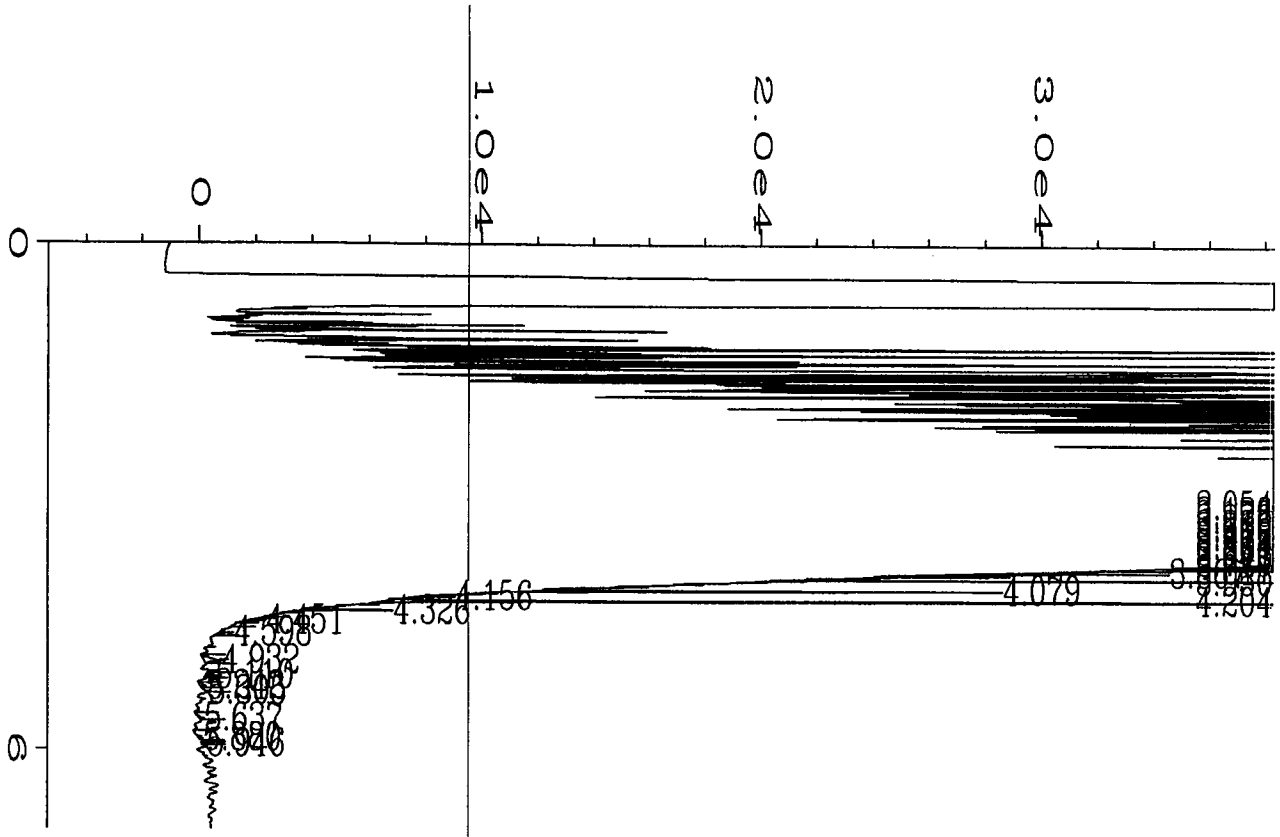
Data File Name : C:\HPCHEM\6\DATA\06-08-15\005F0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 Dx 44-172C
Run Time Bar Code:
Acquired on : 08 Jun 15 02:31 PM
Report Created on: 08 Jun 15 02:42 PM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\005F0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.23128E+009	9.83677E+007	BV +	0.000	99.1097
2	1.242	688186	239311	VVA	0.048	0.0554
3	2.292	5428779	343483	VV +	0.000	0.4370
4	3.577	4697723	334050	VVA	0.234	0.3781
5	5.085	235792	223664	VVA	0.018	0.0190
6	6.488	9542	462	PB +	0.000	0.0008

Total area = 1.24234E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\06-08-15\005R0401.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 Dx 44-172C
Run Time Bar Code:
Acquired on : 08 Jun 15 02:31 PM
Report Created on: 08 Jun 15 02:42 PM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 4
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\005R0401.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.054	191251	250577	BB	0.015	19.0084
2	3.128	9496	27558	BB	0.006	0.9438
3	3.173	26110	29941	BB	0.015	2.5951
4	3.220	98840	233397	BB	0.007	9.8237
5	3.288	29652	10637	BB	0.037	2.9471
6	3.319	26450	21942	BB	0.020	2.6289
7	3.379	106915	217088	BB	0.008	10.6263
8	3.425	123856	246992	BB	0.008	12.3100
9	3.504	36139	24822	BB	0.024	3.5918
10	3.532	74598	148152	BB	0.008	7.4142
11	3.591	9087	9446	BB	0.015	0.9032
12	3.642	15705	16060	BB	0.016	1.5609
13	3.677	55993	112659	BB	0.008	5.5651
14	3.729	10407	6114	BB	0.028	1.0344
15	3.817	33604	68136	BB	0.008	3.3399
16	3.867	7097	7874	BB	0.015	0.7053
17	3.950	17810	36560	BB	0.008	1.7701
18	4.079	8944	17936	BB	0.016	0.8890
19	4.156	479	1216	BB	0.007	0.0476
20	4.204	117873	232384	BB	0.008	11.7154

21	4.326	1437	3221	BB	0.013	0.1429
22	4.451	723	622	BB	0.019	0.0719
23	4.598	314	513	BB	0.017	0.0312
24	4.932	1558	634	BB	0.041	0.1549
25	5.110	457	359	BB	0.020	0.0454
26	5.242	423	226	BB	0.027	0.0420
27	5.305	164	134	BB	0.020	0.0163
28	5.637	272	159	BB	0.025	0.0270
29	5.880	313	155	BB	0.034	0.0311
30	5.946	172	192	BB	0.015	0.0171

Total area = 1006140

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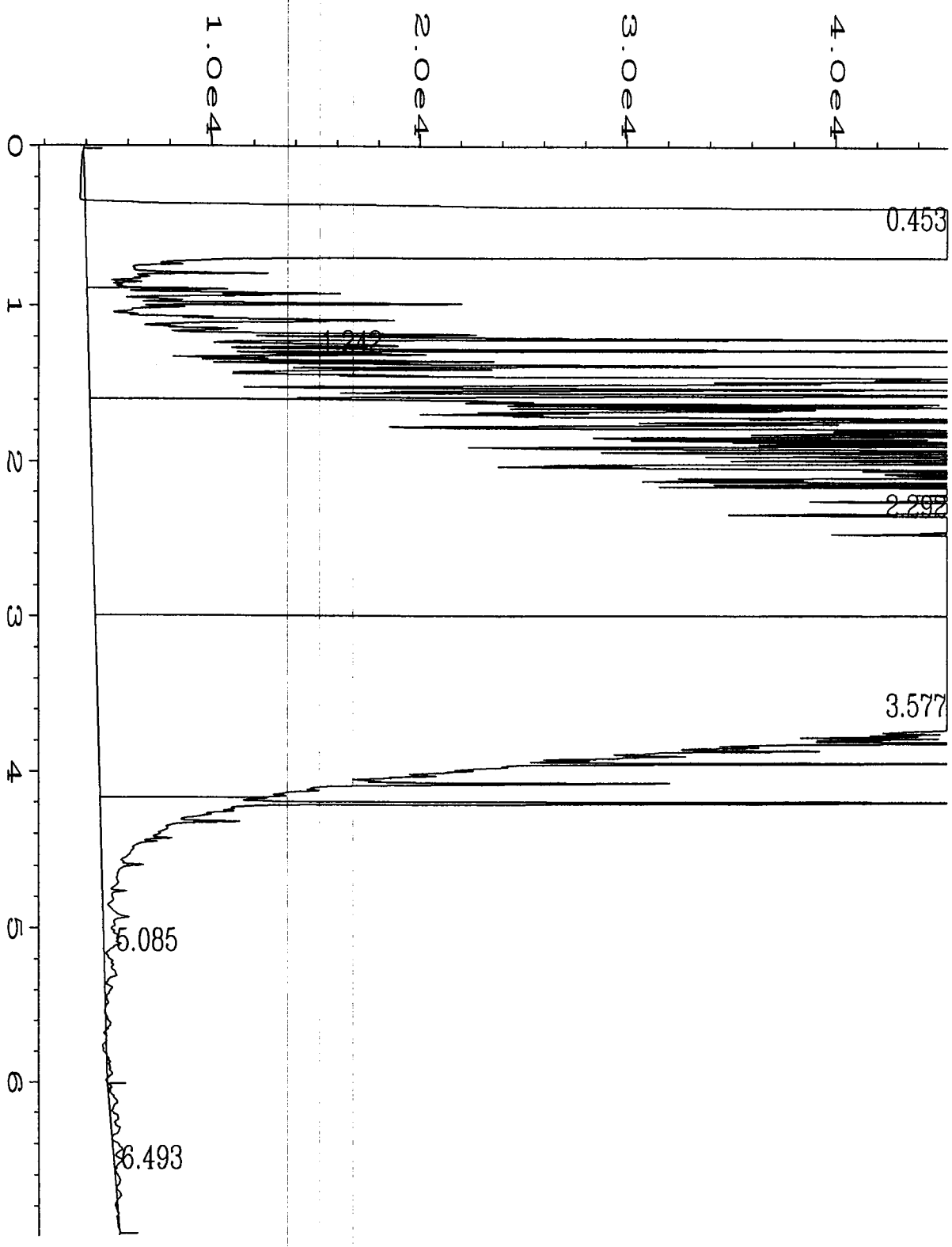
Last modified 4/27/15 mwdl			TPHDSL.XLS			
Data File Name	: C:\HPCHEM\6\DATA\06-08-15\005F0401.D					
Operator	: mwdl			Page Number	: 1	
Instrument	: GC #6			Vial Number	: 5	
Sample Name	: 1000 Dx 44-172C			Injection Number	: 1	
Run Time Bar Code:				Sequence Line	: 4	
Acquired on	42163	0.6048611				
Report Created on: 08 Jun 15 02:42 PM				Analysis Method	: DX.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**		
Triacontane						Calibrated
0	>4.86	<4.90	0	1.00E+05		2/1/11
Pentacosane						
108	>4.16	<4.3	117873	1.09E+05		12/31/14
o-Terphenyl						
100	>3.38	<3.47	123856	1.24E+05		12/31/14
Results			Area	Resp. factor		Calibrated
Diesel, start C10 - start C25						
1009	>1.59	<4.16	1.00E+07	9.92E+03		12/31/14
NWTPH-DX, start C10 - end C36						
995	>1.59	<6.0	10120565	1.02E+04		12/31/14
Motor Oil, start C25 - end C36						
18	>4.16	<6.0	117919	6.49E+03		12/31/14
Heavy Oil, start C17 - end C36						
537	>2.99	<6.0	4691786	8.73E+03		12/31/14
Mineral Oil						
846	>2.99	<6.0	4691786	5.55E+03		1/8/15
Stoddard, start C8 - end C11						
612	>0.89	<2.99	6116965	9.99E+03		1/16/15
Kerosene, start C8 - end C20						
1609	>0.89	<4.16	10690832	6.65E+03		1/10/13
C24-C38						
-13	>10.45	<19.8	-117873	9.42E+03		1/27/11



Data File Name : C:\HPCHEM\6\DATA\06-08-15\005F0701.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 Dx 44-172C
Run Time Bar Code:
Acquired on : 08 Jun 15 06:35 PM
Report Created on: 08 Jun 15 06:46 PM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

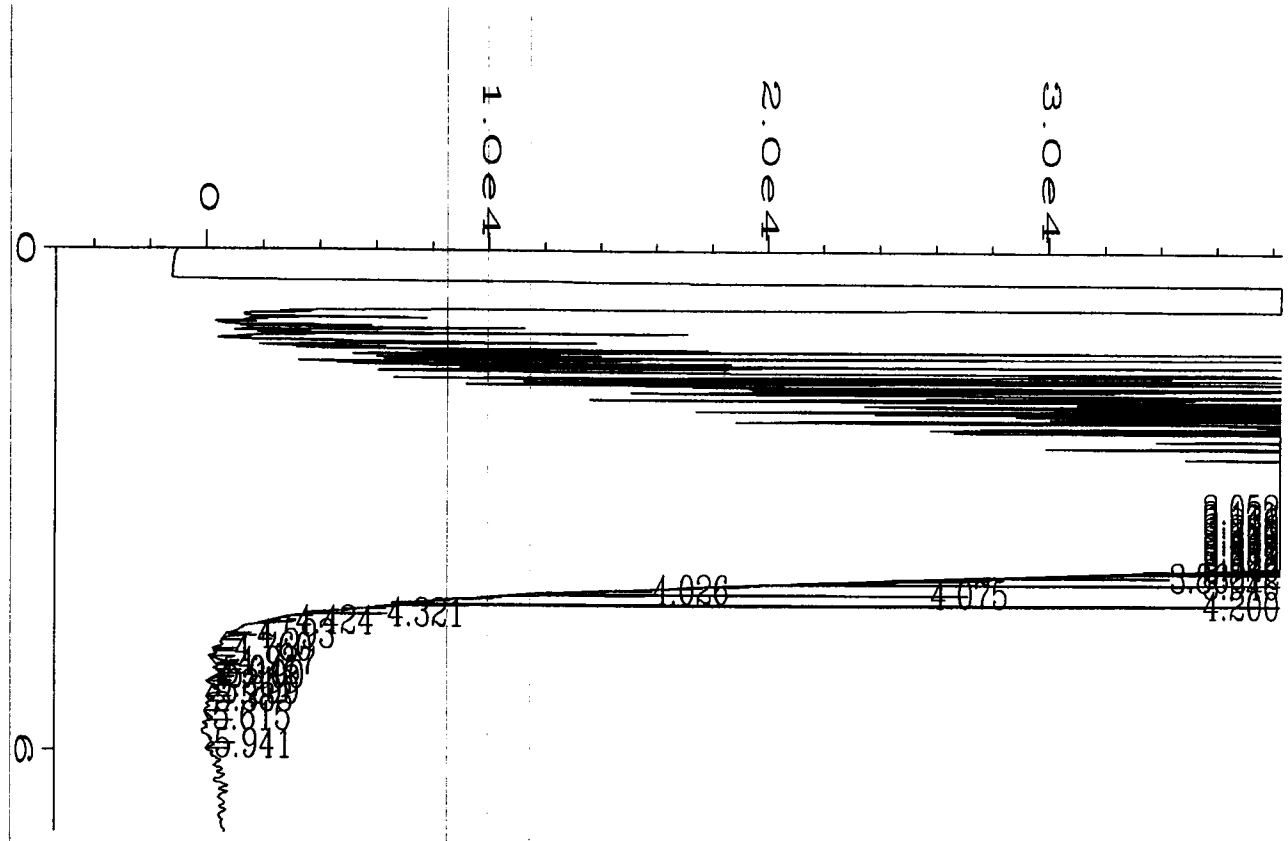
Data File Name : C:\HPCHEM\6\DATA\06-08-15\005F0701.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 Dx 44-172C
Run Time Bar Code:
Acquired on : 08 Jun 15 06:35 PM
Report Created on: 08 Jun 15 06:46 PM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\005F0701.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.1919E+009	9.7419E+007	BV +	0.000	99.1046
2	1.242	665371	229955	VVA	0.048	0.0553
3	2.292	5288912	333287	VV +	0.000	0.4398
4	3.577	4572601	324270	VVA	0.235	0.3802
5	5.085	233117	247182	VV +	0.000	0.0194
6	6.493	8293	417	PB +	0.000	0.0007

Total area = 1.20267E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\06-08-15\005R0701.D
Operator : mwdl
Instrument : GC #6
Sample Name : 1000 Dx 44-172C
Run Time Bar Code:
Acquired on : 08 Jun 15 06:35 PM
Report Created on: 08 Jun 15 06:46 PM

Page Number : 1
Vial Number : 5
Injection Number : 1
Sequence Line : 7
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\005R0701.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.052	197603	234297	BB	0.015	19.9887
2	3.127	2990	24085	BB	0.002	0.3025
3	3.171	21174	26733	BB	0.013	2.1418
4	3.218	99621	225120	BB	0.007	10.0772
5	3.286	42029	11914	BB	0.046	4.2515
6	3.333	23745	15790	BB	0.025	2.4019
7	3.377	103898	193019	BB	0.009	10.5099
8	3.422	120670	275558	BB	0.012	12.2065
9	3.501	24133	21514	BB	0.019	2.4412
10	3.527	69608	142420	BB	0.008	7.0413
11	3.589	6899	7510	BB	0.017	0.6979
12	3.638	14707	15240	BB	0.016	1.4877
13	3.673	53528	112153	BB	0.008	5.4146
14	3.726	8074	6573	BB	0.020	0.8168
15	3.812	35366	62142	BB	0.009	3.5774
16	3.862	6478	8307	BB	0.014	0.6552
17	3.946	20218	34957	BB	0.014	2.0452
18	4.026	2987	2305	BB	0.022	0.3022
19	4.075	11239	17510	BB	0.011	1.1369
20	4.200	114384	249777	BB	0.008	11.5706

21	4.321	1087	2765	BB	0.012	0.1099
22	4.424	1193	1206	BB	0.016	0.1207
23	4.593	1059	1155	BB	0.018	0.1071
24	4.760	519	755	BB	0.011	0.0525
25	4.927	1574	850	BB	0.031	0.1592
26	5.045	182	149	BB	0.020	0.0184
27	5.100	684	381	BB	0.025	0.0691
28	5.211	171	147	BB	0.017	0.0173
29	5.299	1407	427	BB	0.043	0.1423
30	5.383	429	239	BB	0.031	0.0434
31	5.615	454	170	BB	0.041	0.0459
32	5.941	465	210	BB	0.037	0.0470

Total area = 988573

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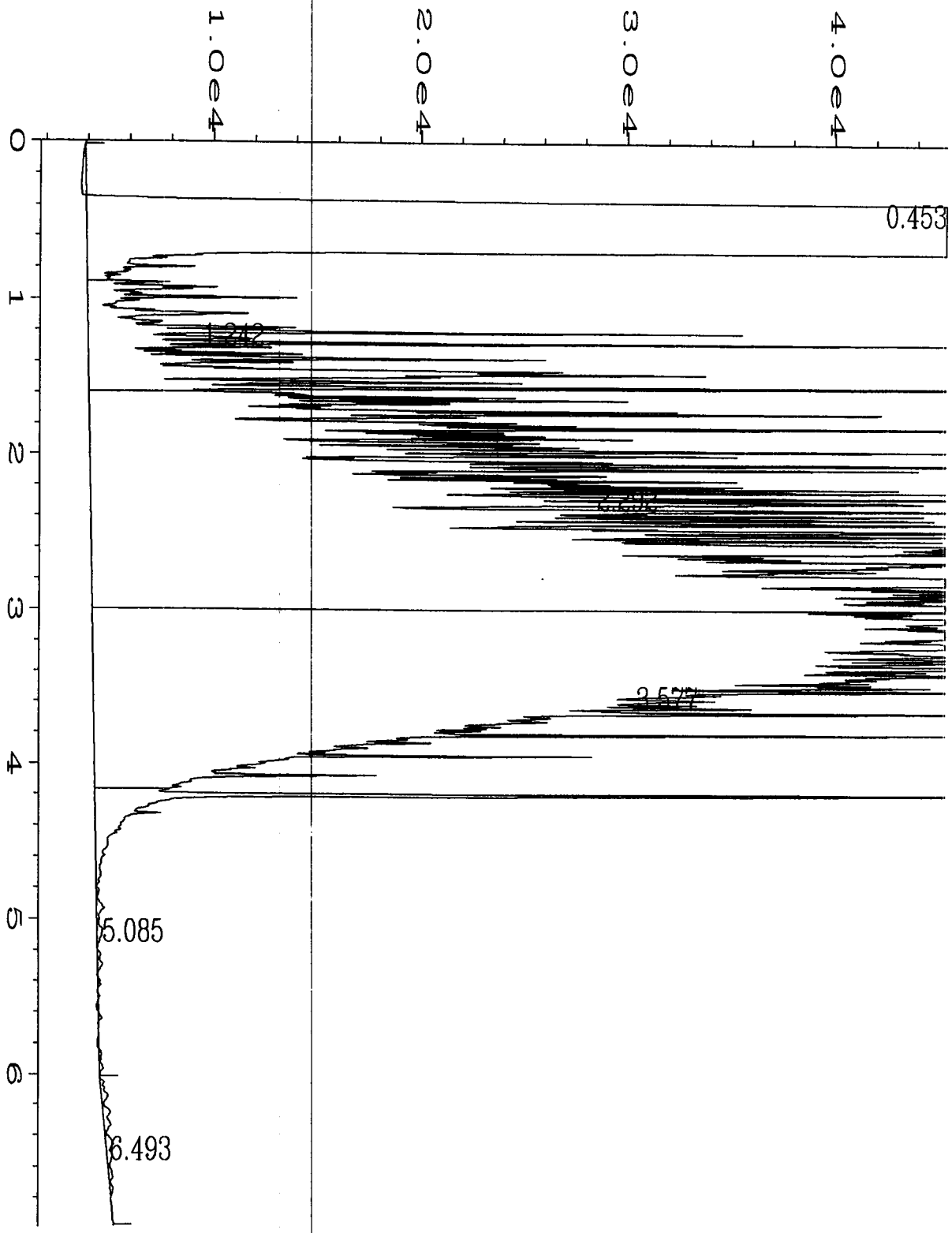
Last modified 4/27/15 mwdl			TPHDSL.XLS			
Data File Name	: C:\HPCHEM\6\DATA\06-08-15\005F0701.D					
Operator	: mwdl			Page Number	: 1	
Instrument	: GC #6			Vial Number	: 5	
Sample Name	: 1000 Dx 44-172C			Injection Number	: 1	
Run Time Bar Code:				Sequence Line	: 7	
Acquired on	42163	0.7743056				
Report Created on: 08 Jun 15 06:46 PM				Analysis Method	: DX.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**		
Triacontane					Calibrated	
0	>4.86	<4.90	0	1.00E+05	2/1/11	
Pentacosane						
105	>4.16	<4.3	114384	1.09E+05	12/31/14	
o-Terphenyl						
98	>3.38	<3.47	120670	1.24E+05	12/31/14	
Results			Area	Resp. factor	Calibrated	
Diesel, start C10 - start C25						
982	>1.59	<4.16	9.74E+06	9.92E+03	12/31/14	
NWTPH-DX, start C10 - end C36						
970	>1.59	<6.0	9859576	1.02E+04	12/31/14	
Motor Oil, start C25 - end C36						
18	>4.16	<6.0	118733	6.49E+03	12/31/14	
Heavy Oil, start C17 - end C36						
523	>2.99	<6.0	4570664	8.73E+03	12/31/14	
Mineral Oil						
824	>2.99	<6.0	4570664	5.55E+03	1/8/15	
Stoddard, start C8 - end C11						
596	>0.89	<2.99	5954283	9.99E+03	1/16/15	
Kerosene, start C8 - end C20						
1566	>0.89	<4.16	10406214	6.65E+03	1/10/13	
C24-C38						
-12	>10.45	<19.8	-114384	9.42E+03	1/27/11	



Data File Name	: C:\HPCHEM\6\DATA\06-08-15\093F0901.D		
Operator	: mwdl	Page Number	: 1
Instrument	: GC #6	Vial Number	: 93
Sample Name	: 500 Dx 44-94C	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 9
Acquired on	: 08 Jun 15 08:16 PM	Instrument Method:	DX.MTH
Report Created on:	08 Jun 15 08:26 PM	Analysis Method	: DX.MTH

Area Percent Report

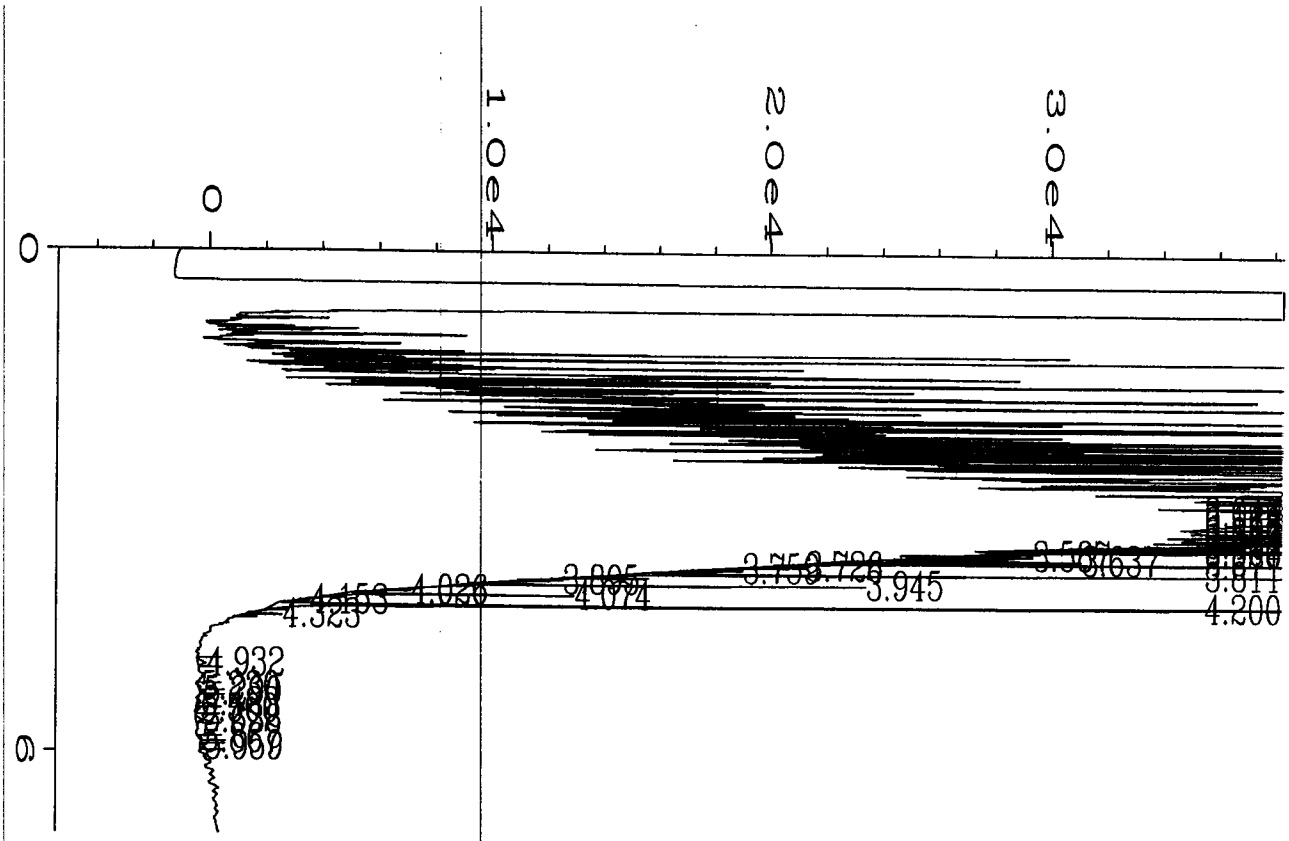
Data File Name : C:\HPCHEM\6\DATA\06-08-15\093F0901.D
Operator : mwdl
Instrument : GC #6
Sample Name : 500 Dx 44-94C
Run Time Bar Code:
Acquired on : 08 Jun 15 08:16 PM
Report Created on: 08 Jun 15 08:26 PM

Page Number : 1
Vial Number : 93
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\093F0901.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.24821E+009	9.92043E+007	BV +	0.000	99.5771
2	1.242	338151	105588	VVA	0.053	0.0270
3	2.292	2572419	165565	VVA	0.259	0.2052
4	3.577	2231089	263696	VVA	0.141	0.1780
5	5.085	151632	203643	VVA	0.012	0.0121
6	6.493	8103	351	PB +	0.000	0.0006

Total area = 1.25352E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\06-08-15\093R0901.D
Operator : mwdl
Instrument : GC #6
Sample Name : 500 Dx 44-94C
Run Time Bar Code:
Acquired on : 08 Jun 15 08:16 PM
Report Created on: 08 Jun 15 08:26 PM

Page Number : 1
Vial Number : 93
Injection Number : 1
Sequence Line : 9
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\093R0901.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.049	69730	115138	BB	0.013	12.0391
2	3.124	2152	13602	BB	0.003	0.3716
3	3.169	10975	14156	BB	0.013	1.8948
4	3.216	83250	118893	BB	0.019	14.3735
5	3.284	9973	7950	BB	0.019	1.7218
6	3.315	5302	6742	BB	0.013	0.9155
7	3.375	53303	92972	BB	0.010	9.2029
8	3.421	112442	242512	BB	0.008	19.4136
9	3.500	14208	11444	BB	0.021	2.4532
10	3.526	33453	75394	BB	0.007	5.7758
11	3.587	2115	3647	BB	0.012	0.3652
12	3.637	7394	8424	BB	0.015	1.2765
13	3.671	25961	50309	BB	0.009	4.4822
14	3.726	3593	2998	BB	0.018	0.6204
15	3.759	2173	2490	BB	0.015	0.3751
16	3.811	15787	30053	BB	0.009	2.7257
17	3.895	4232	1878	BB	0.038	0.7307
18	3.945	7883	15924	BB	0.008	1.3610
19	4.026	1710	1158	BB	0.025	0.2953
20	4.074	4915	8694	BB	0.009	0.8486

21	4.153	355	511	BB	0.012	0.0613
22	4.200	104537	207845	BB	0.018	18.0487
23	4.323	877	1340	BB	0.015	0.1514
24	4.932	803	305	BB	0.040	0.1386
25	5.230	137	95	BB	0.024	0.0236
26	5.290	215	130	BB	0.027	0.0370
27	5.423	200	153	BB	0.020	0.0345
28	5.500	348	153	BB	0.032	0.0601
29	5.638	632	254	BB	0.033	0.1092
30	5.867	198	91	BB	0.030	0.0342
31	5.959	341	166	BB	0.029	0.0589

Total area = 579193

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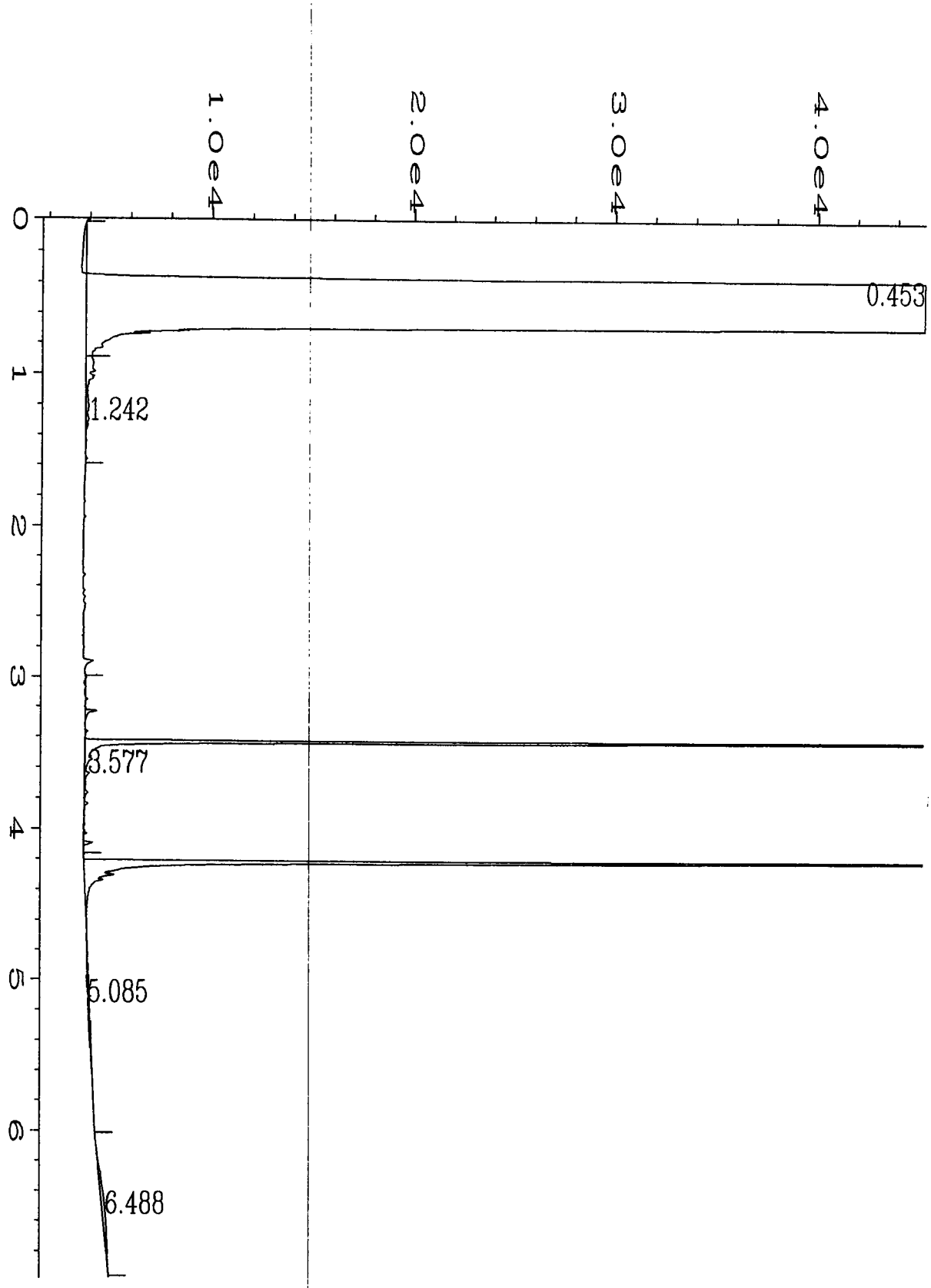
Last modified 4/27/15 mwdl | TPHDSL.XLS

Data File Name : C:\HPCHEM\6\DATA\06-08-15\093F0901.D
Operator : mwdl | Page Number : 1
Instrument : GC #6 | Vial Number : 93
Sample Name : 500 Dx 44-94C | Injection Number : 1
Run Time Bar Code: | Sequence Line : 9
Acquired on 42163 0.8444444
Report Created on: 08 Jun 15 08:26 PM | Analysis Method : DX.MTH

Surr / IS	**Ret Time window**		**Area**	**Avg. Area**		
Triacontane						Calibrated
0	>4.86	<4.90	0	1.00E+05		2/1/11
Pentacosane						
96	>4.16	<4.3	104537	1.09E+05		12/31/14
o-Terphenyl						
91	>3.38	<3.47	112442	1.24E+05		12/31/14
Results			Area	Resp. factor		Calibrated
Diesel, start C10 - start C25						
473	>1.59	<4.16	4.69E+06	9.92E+03		12/31/14
NWTPH-DX, start C10 - end C36						
466	>1.59	<6.0	4738161	1.02E+04		12/31/14
Motor Oil, start C25 - end C36						
7	>4.16	<6.0	47095	6.49E+03		12/31/14
Heavy Oil, start C17 - end C36						
248	>2.99	<6.0	2165742	8.73E+03		12/31/14
Mineral Oil						
390	>2.99	<6.0	2165742	5.55E+03		1/8/15
Stoddard, start C8 - end C11						
291	>0.89	<2.99	2910570	9.99E+03		1/16/15
Kerosene, start C8 - end C20						
757	>0.89	<4.16	5029217	6.65E+03		1/10/13
C24-C38						
-11	>10.45	<19.8	-104537	9.42E+03		1/27/11

NWTPH-Dx
Quality Assurance Data

F&B Project 506179



Data File Name : C:\HPCHEM\6\DATA\06-08-15\028F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 mb
Run Time Bar Code:
Acquired on : 08 Jun 15 04:14 PM
Report Created on: 08 Jun 15 04:22 PM

Page Number : 1
Vial Number : 28
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

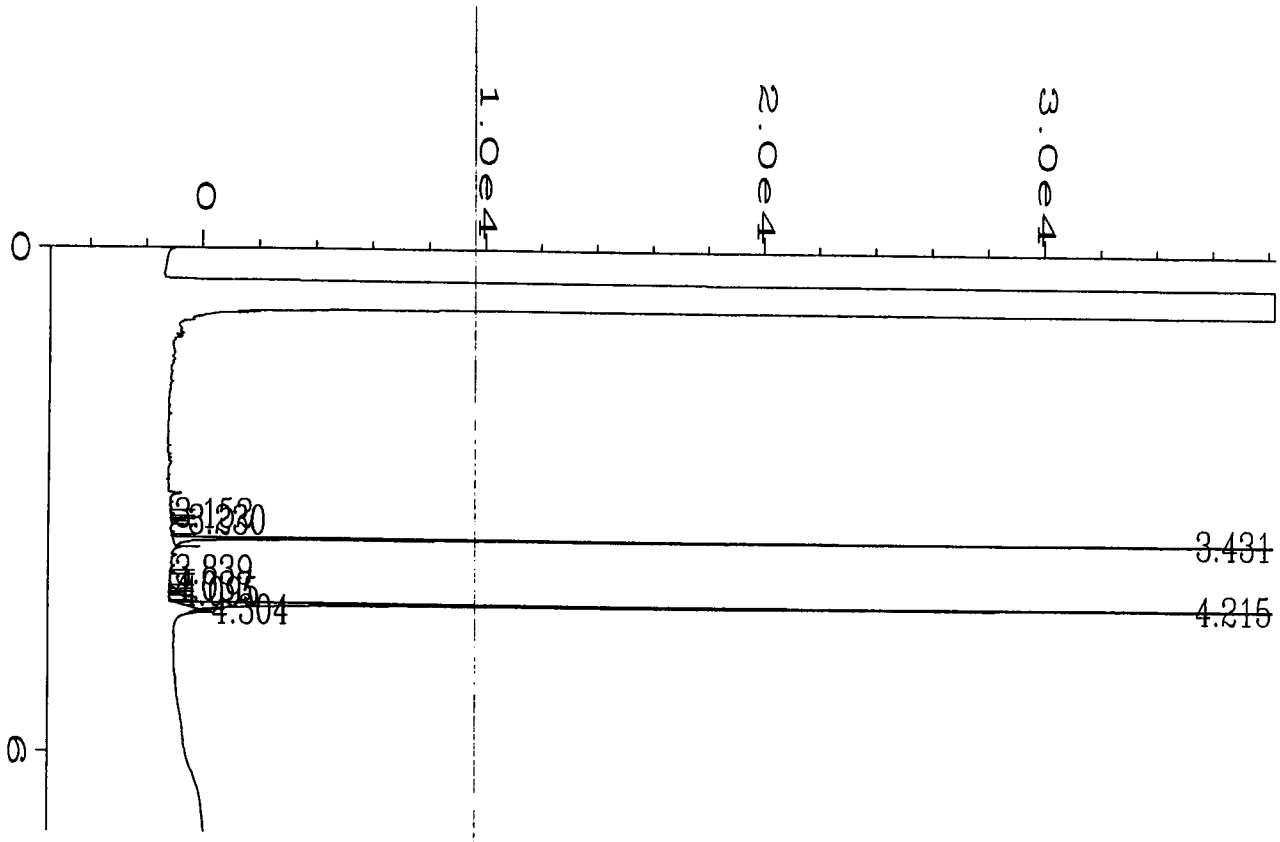
Data File Name : C:\HPCHEM\6\DATA\06-08-15\028F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 mb
Run Time Bar Code:
Acquired on : 08 Jun 15 04:14 PM
Report Created on: 08 Jun 15 04:22 PM

Page Number : 1
Vial Number : 28
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\028F0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.23103E+009	1.02473E+008	BVA	0.200	99.9817
2	1.242	5401	472	VB +	0.000	0.0004
3	3.577	117591	206582	BV +	0.000	0.0096
4	5.085	97920	151023	PB +	0.000	0.0080
5	6.488	4293	340	BB +	0.000	0.0003

Total area = 1.23125E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\06-08-15\028R0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 mb
Run Time Bar Code:
Acquired on : 08 Jun 15 04:14 PM
Report Created on: 08 Jun 15 04:22 PM

Page Number : 1
Vial Number : 28
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\028R0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.152	135	140	BB	0.016	0.0648
2	3.230	546	574	BB	0.020	0.2622
3	3.431	113026	224633	BB	0.008	54.2684
4	3.839	191	150	BB	0.020	0.0916
5	4.033	163	183	BB	0.015	0.0781
6	4.095	440	499	BB	0.016	0.2111
7	4.215	93270	163198	BB	0.020	44.7827
8	4.304	502	563	BB	0.015	0.2410

Total area = 208272

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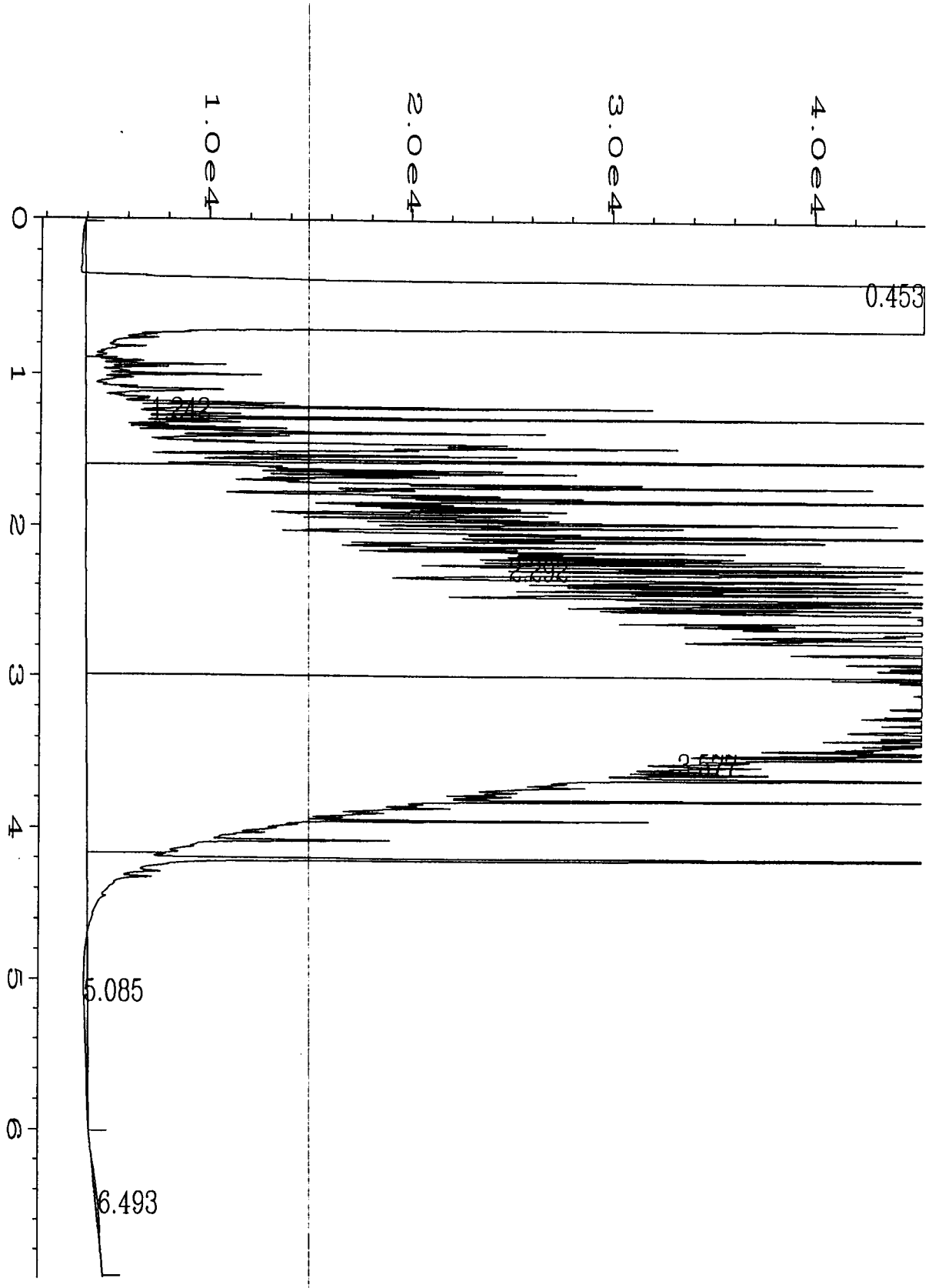
Last modified 4/27/15 mwdl			TPHDSL.XLS				
Data File Name : C:\HPCHEM\6\DATA\06-08-15\028F0601.D							
Operator : mwdl				Page Number : 1			
Instrument : GC #6				Vial Number : 28			
Sample Name : 05-1070 mb				Injection Number : 1			
Run Time Bar Code:				Sequence Line : 6			
Acquired on	42163	0.6763889					
Report Created on: 08 Jun 15 04:22 PM				Analysis Method : DX.MTH			
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>4.86	<4.90	0	1.00E+05		2/1/11	
Pentacosane							
85	>4.16	<4.3	93270	1.09E+05		12/31/14	
o-Terphenyl							
91	>3.38	<3.47	113026	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
0	>1.59	<4.16	4.57E+03	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
1	>1.59	<6.0	9215	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
1	>4.16	<6.0	4650	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
1	>2.99	<6.0	9215	8.73E+03		12/31/14	
Mineral Oil							
2	>2.99	<6.0	9215	5.55E+03		1/8/15	
Stoddard, start C8 - end C11							
1	>0.89	<2.99	5401	9.99E+03		1/16/15	
Kerosene, start C8 - end C20							
1	>0.89	<4.16	9966	6.65E+03		1/10/13	
C24-C38							
-10	>10.45	<19.8	-93270	9.42E+03		1/27/11	



Data File Name : C:\HPCHEM\6\DATA\06-08-15\029F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 lcs
Run Time Bar Code:
Acquired on : 08 Jun 15 04:23 PM
Report Created on: 08 Jun 15 04:33 PM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

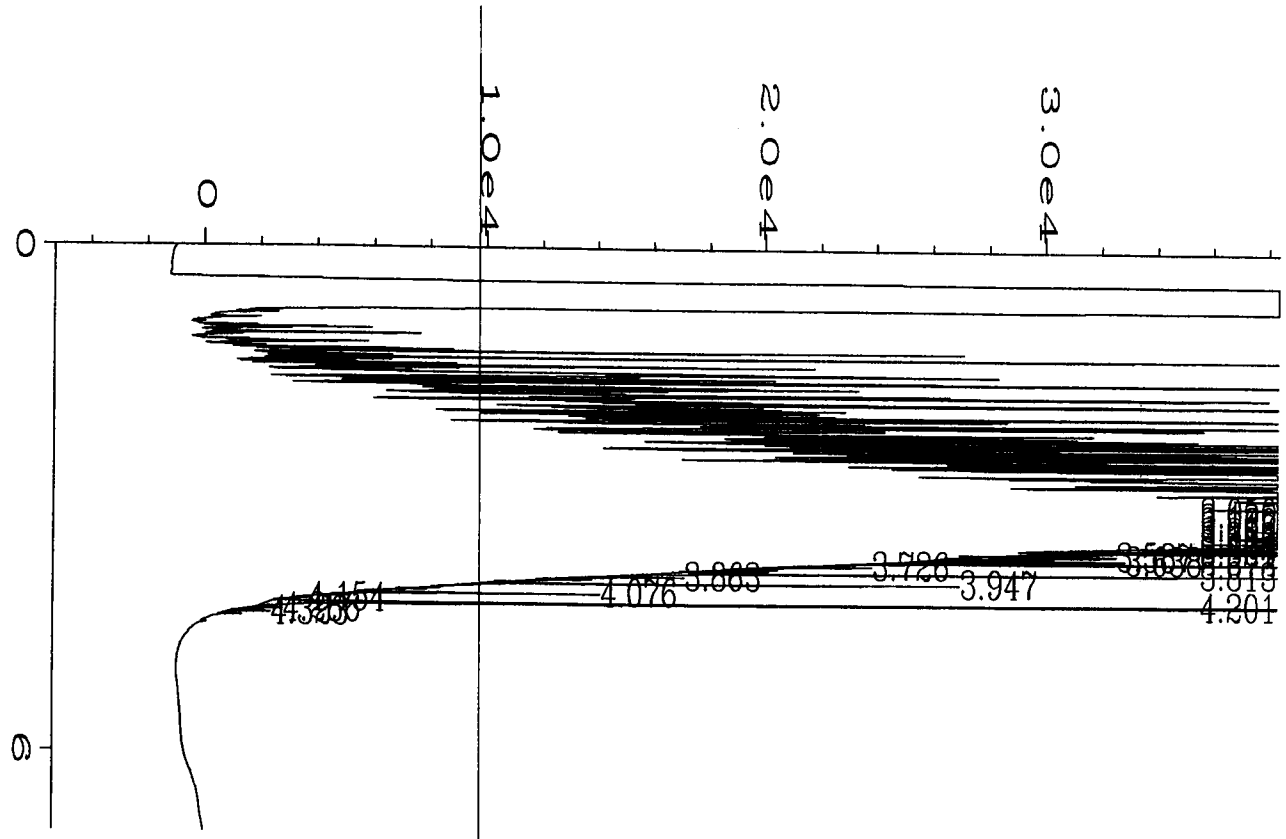
Data File Name : C:\HPCHEM\6\DATA\06-08-15\029F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 lcs
Run Time Bar Code:
Acquired on : 08 Jun 15 04:23 PM
Report Created on: 08 Jun 15 04:33 PM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\029F0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.30797E+009	1.01227E+008	BVA	0.215	99.5797
2	1.242	304638	103889	VVA	0.049	0.0232
3	2.292	2635221	167387	VV +	0.000	0.2006
4	3.577	2437951	287479	VVA	0.141	0.1856
5	5.085	139244	192380	VV +	0.000	0.0106
6	6.493	3302	348	PB +	0.000	0.0003

Total area = 1.31349E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\06-08-15\029R0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 lcs
Run Time Bar Code:
Acquired on : 08 Jun 15 04:23 PM
Report Created on: 08 Jun 15 04:33 PM

Page Number : 1
Vial Number : 29
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\029R0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.050	78786	141072	BB	0.012	13.5244
2	3.125	953	12687	BB	0.001	0.1636
3	3.169	10085	13607	BB	0.012	1.7311
4	3.216	48780	125431	BB	0.006	8.3736
5	3.284	13399	6250	BB	0.030	2.3001
6	3.333	13210	8168	BB	0.022	2.2676
7	3.375	53769	98699	BB	0.009	9.2300
8	3.422	120390	271920	BB	0.012	20.6661
9	3.501	15519	10173	BB	0.025	2.6640
10	3.527	37502	81206	BB	0.008	6.4375
11	3.587	5647	5185	BB	0.018	0.9694
12	3.638	7696	7807	BB	0.016	1.3210
13	3.673	27330	55591	BB	0.008	4.6915
14	3.726	3589	3931	BB	0.015	0.6162
15	3.813	17721	31504	BB	0.009	3.0420
16	3.863	3943	4100	BB	0.016	0.6768
17	3.947	9166	17869	BB	0.009	1.5734
18	4.076	4317	8963	BB	0.014	0.7411
19	4.154	330	497	BB	0.011	0.0566
20	4.201	108320	202742	BB	0.009	18.5942

21	4.286	962	1388	BB	0.012	0.1652
22	4.323	1133	1541	BB	0.012	0.1946

Total area - 582548

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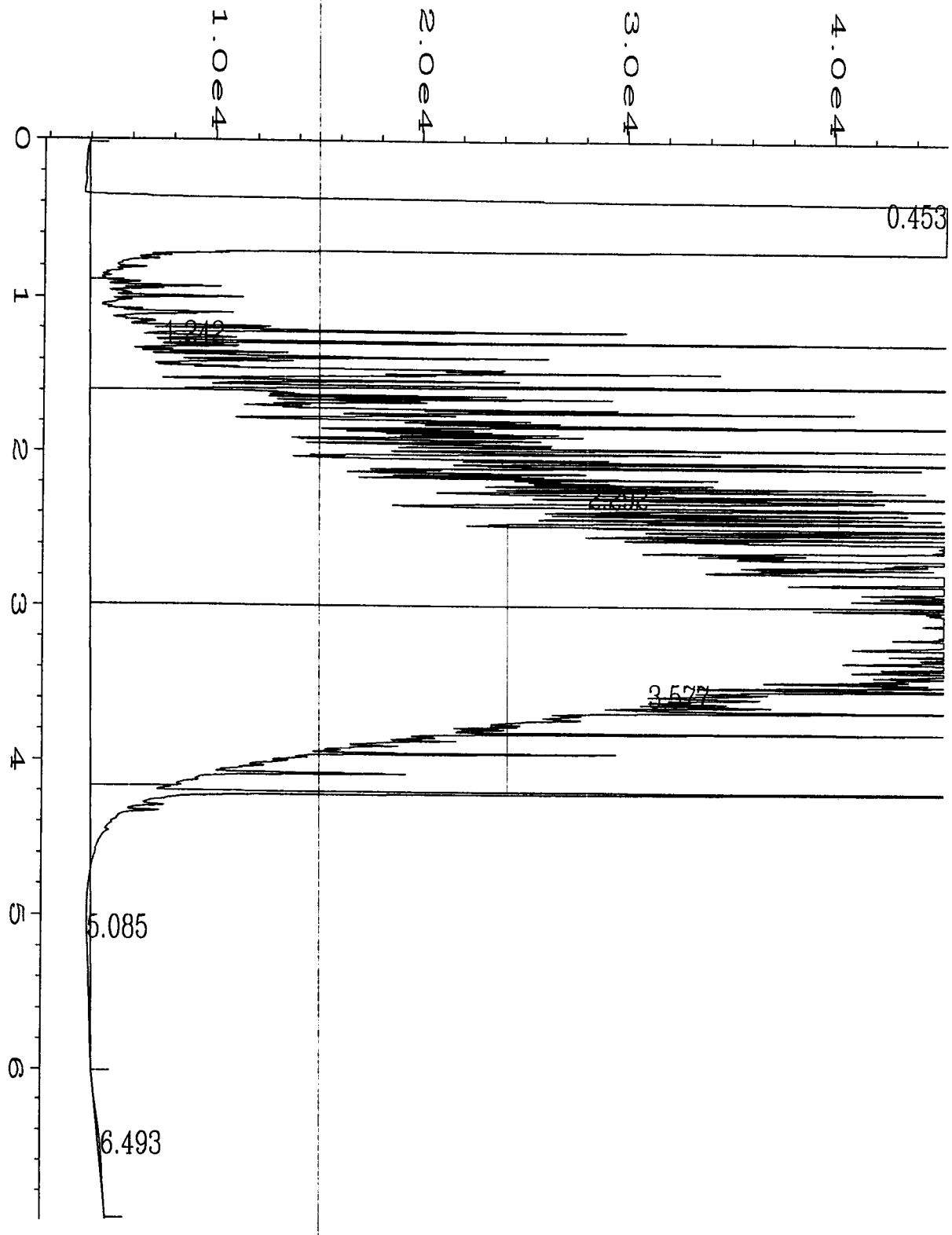
Last modified 4/27/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\06-08-15\029F0601.D						
Operator	: mwdl			Page Number		: 1	
Instrument	: GC #6			Vial Number		: 29	
Sample Name	: 05-1070 lcs			Injection Number		: 1	
Run Time Bar Code:				Sequence Line		: 6	
Acquired on	42163	0.6826389					
Report Created on: 08 Jun 15 04:33 PM				Analysis Method		: DX.MTH	
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>4.86	<4.90	0	1.00E+05		2/1/11	
Pentacosane							
99	>4.16	<4.3	108320	1.09E+05		12/31/14	
o-Terphenyl							
97	>3.38	<3.47	120390	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
499	>1.59	<4.16	4.95E+06	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
490	>1.59	<6.0	4983706	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
5	>4.16	<6.0	30924	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
269	>2.99	<6.0	2348485	8.73E+03		12/31/14	
Mineral Oil							
423	>2.99	<6.0	2348485	5.55E+03		1/8/15	
Stoddard, start C8 - end C11							
294	>0.89	<2.99	2939859	9.99E+03		1/16/15	
Kerosene, start C8 - end C20							
791	>0.89	<4.16	5257420	6.65E+03		1/10/13	
C24-C38							
-12	>10.45	<19.8	-108320	9.42E+03		1/27/11	



Data File Name : C:\HPCHEM\6\DATA\06-08-15\030F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 lcsd
Run Time Bar Code:
Acquired on : 08 Jun 15 04:34 PM
Report Created on: 08 Jun 15 04:44 PM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

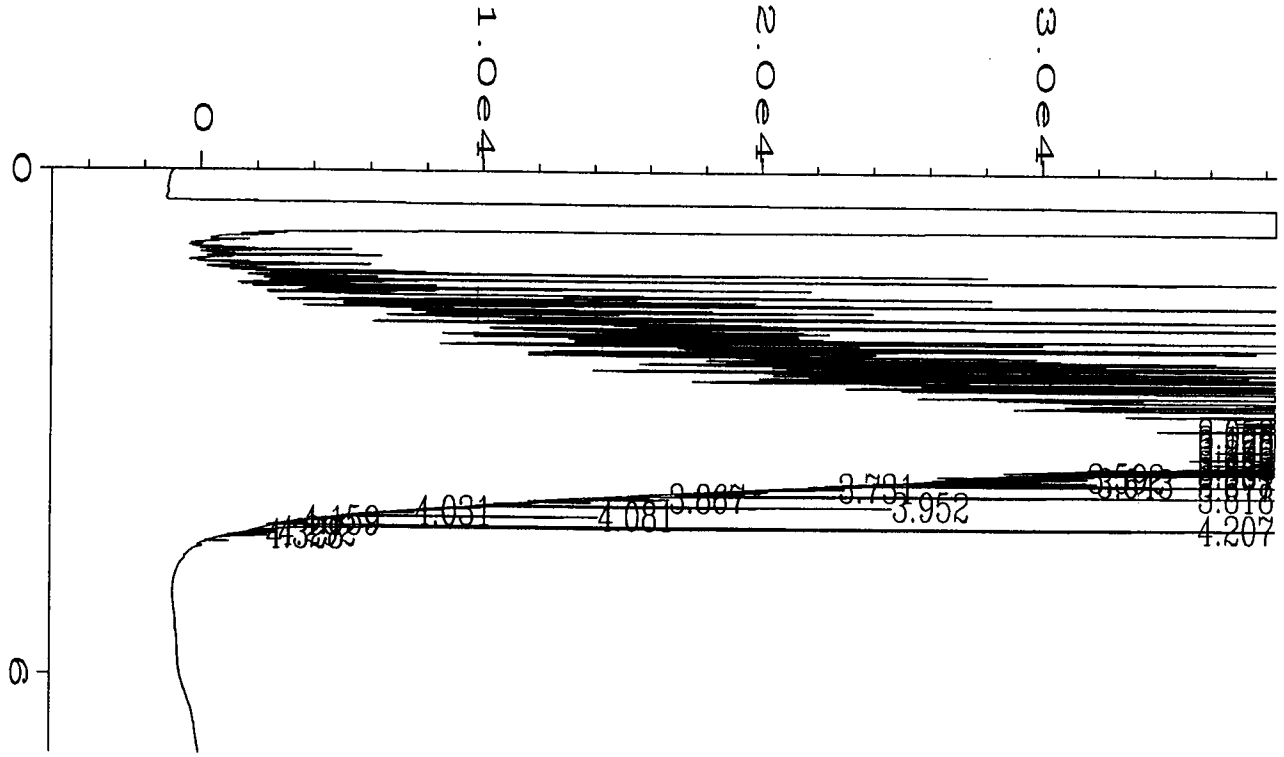
Data File Name : C:\HPCHEM\6\DATA\06-08-15\030F0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 lcsd
Run Time Bar Code:
Acquired on : 08 Jun 15 04:34 PM
Report Created on: 08 Jun 15 04:44 PM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\030F0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.27086E+009	1.00549E+008	BV +	0.000	99.5731
2	1.242	302928	101225	VVA	0.050	0.0237
3	2.292	2589033	159800	VV +	0.000	0.2029
4	3.577	2415155	275462	VVA	0.146	0.1892
5	5.085	138980	204655	VV +	0.000	0.0109
6	6.493	2926	335	PB +	0.000	0.0002

Total area = 1.27631E+009



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Area Percent Report

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Data File Name : C:\HPCHEM\6\DATA\06-08-15\030R0601.D
Operator : mwdl
Instrument : GC #6
Sample Name : 05-1070 lcsd
Run Time Bar Code:
Acquired on : 08 Jun 15 04:34 PM
Report Created on: 08 Jun 15 04:44 PM

Page Number : 1
Vial Number : 30
Injection Number : 1
Sequence Line : 6
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\030R0601.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.053	101874	128830	BB	0.015	16.8394
2	3.128	4609	14432	BB	0.005	0.7619
3	3.173	13433	15239	BB	0.015	2.2205
4	3.220	50199	123941	BB	0.007	8.2978
5	3.290	18726	4912	BB	0.049	3.0954
6	3.380	54574	100960	BB	0.009	9.0209
7	3.426	119327	254971	BB	0.012	19.7244
8	3.504	16415	9935	BB	0.028	2.7134
9	3.531	37250	72608	BB	0.009	6.1574
10	3.592	4294	4311	BB	0.017	0.7097
11	3.643	6525	6603	BB	0.016	1.0786
12	3.677	26641	54703	BB	0.008	4.4037
13	3.731	3714	2932	BB	0.021	0.6140
14	3.818	18776	31514	BB	0.010	3.1037
15	3.867	3865	3890	BB	0.017	0.6389
16	3.952	8984	16458	BB	0.009	1.4851
17	4.031	2208	984	BB	0.037	0.3649
18	4.081	4942	9508	BB	0.009	0.8169
19	4.159	182	472	BB	0.006	0.0301
20	4.207	106445	213025	BB	0.016	17.5950

21	4.292	938	1401	BB	0.011	0.1550
22	4.328	1049	1549	BB	0.011	0.1734

Total area = 604972

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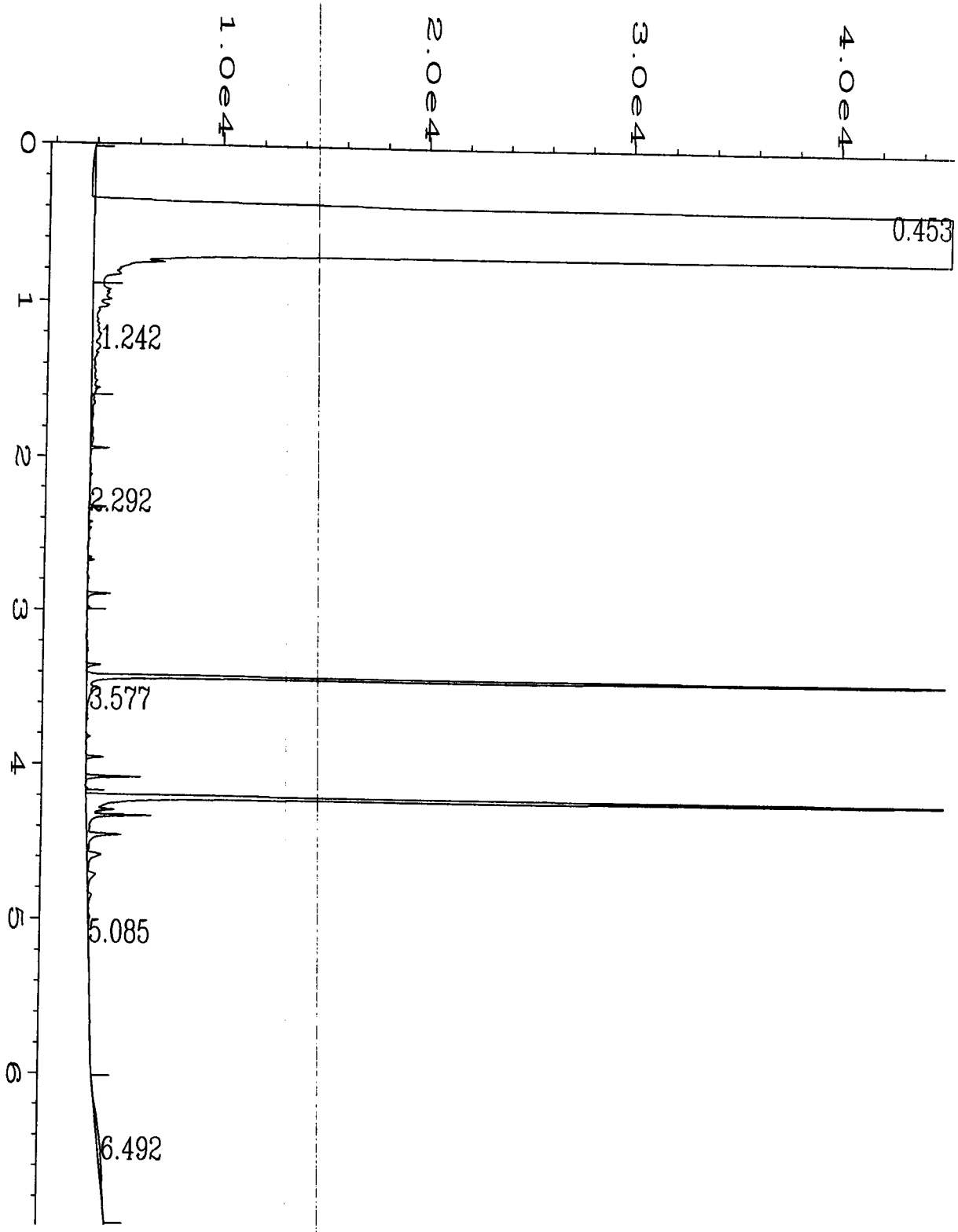
Last modified 4/27/15 mwdl			TPHDSL.XLS				
Data File Name	: C:\HPCHEM\6\DATA\06-08-15\030F0601.D						
Operator	: mwdl			Page Number	: 1		
Instrument	: GC #6			Vial Number	: 30		
Sample Name	: 05-1070 lcsd			Injection Number	: 1		
Run Time Bar Code:				Sequence Line	: 6		
Acquired on	42163	0.6902778					
Report Created on: 08 Jun 15 04:44 PM				Analysis Method	: DX.MTH		
Surr / IS	**Ret Time window**		**Area**	**Avg. Area**			
Triacontane						Calibrated	
0	>4.86	<4.90	0	1.00E+05		2/1/11	
Pentacosane							
98	>4.16	<4.3	106445	1.09E+05		12/31/14	
o-Terphenyl							
97	>3.38	<3.47	119327	1.24E+05		12/31/14	
Results			Area	Resp. factor		Calibrated	
Diesel, start C10 - start C25							
493	>1.59	<4.16	4.88E+06	9.92E+03		12/31/14	
NWTPH-DX, start C10 - end C36							
484	>1.59	<6.0	4917396	1.02E+04		12/31/14	
Motor Oil, start C25 - end C36							
5	>4.16	<6.0	32535	6.49E+03		12/31/14	
Heavy Oil, start C17 - end C36							
267	>2.99	<6.0	2328363	8.73E+03		12/31/14	
Mineral Oil							
420	>2.99	<6.0	2328363	5.55E+03		1/8/15	
Stoddard, start C8 - end C11							
290	>0.89	<2.99	2891961	9.99E+03		1/16/15	
Kerosene, start C8 - end C20							
781	>0.89	<4.16	5187789	6.65E+03		1/10/13	
C24-C38							
-11	>10.45	<19.8	-106445	9.42E+03		1/27/11	

NWTPH-Dx
Sample Chromatograms & Data

F&B Project 506179



Data File Name : C:\HPCHEM\6\DATA\06-08-15\043F0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-02
Run Time Bar Code:
Acquired on : 08 Jun 15 07:20 PM
Report Created on: 08 Jun 15 07:30 PM

Page Number : 1
Vial Number : 43
Injection Number : 1
Sequence Line : 8
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

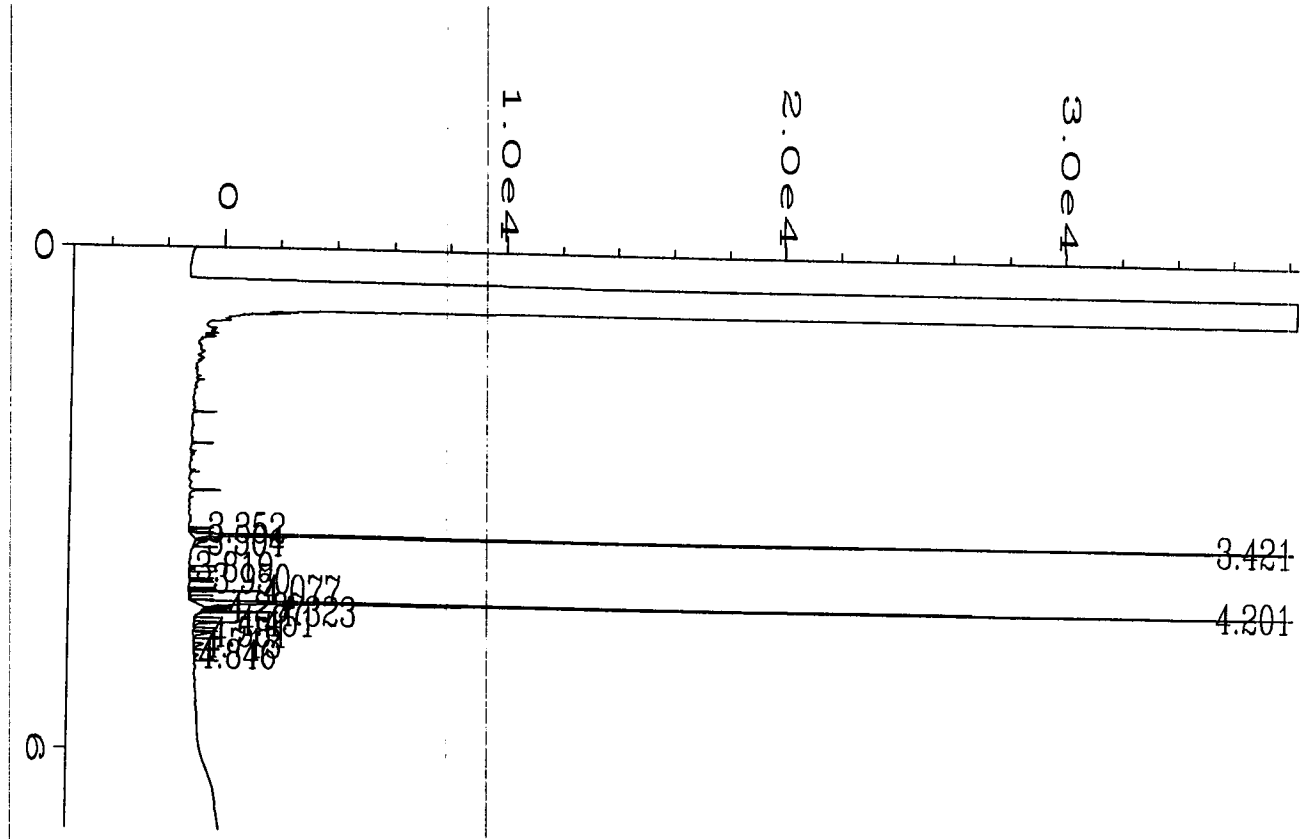
Data File Name : C:\HPCHEM\6\DATA\06-08-15\043F0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-02
Run Time Bar Code:
Acquired on : 08 Jun 15 07:20 PM
Report Created on: 08 Jun 15 07:30 PM

Page Number : 1
Vial Number : 43
Injection Number : 1
Sequence Line : 8
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\043F0801.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.22328E+009	9.85055E+007	BV +	0.000	99.9787
2	1.242	13777	898	VVA	0.256	0.0011
3	2.292	5548	1080	VVA	0.086	0.0005
4	3.577	122845	227829	PVA	0.009	0.0100
5	5.085	114645	183479	PV +	0.000	0.0094
6	6.492	3934	351	PB +	0.000	0.0003

Total area = 1.22354E+009



Area Percent Report

Data File Name : C:\HPCHEM\6\DATA\06-08-15\043R0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-02
Run Time Bar Code:
Acquired on : 08 Jun 15 07:20 PM
Report Created on: 08 Jun 15 07:30 PM

Page Number : 1
Vial Number : 43
Injection Number : 1
Sequence Line : 8
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\043R0801.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.352	553	694	BB	0.016	0.2411
2	3.421	117127	238160	BB	0.008	51.0564
3	3.504	676	411	BB	0.023	0.2946
4	3.819	201	205	BB	0.016	0.0876
5	3.950	583	843	BB	0.012	0.2540
6	4.077	1725	2684	BB	0.020	0.7521
7	4.201	102258	191561	BB	0.018	44.5750
8	4.287	565	829	BB	0.011	0.2461
9	4.323	1964	2770	BB	0.021	0.8562
10	4.451	1637	1562	BB	0.026	0.7136
11	4.581	1186	629	BB	0.028	0.5171
12	4.713	656	324	BB	0.031	0.2857
13	4.846	276	146	BB	0.030	0.1205

Total area = 229406

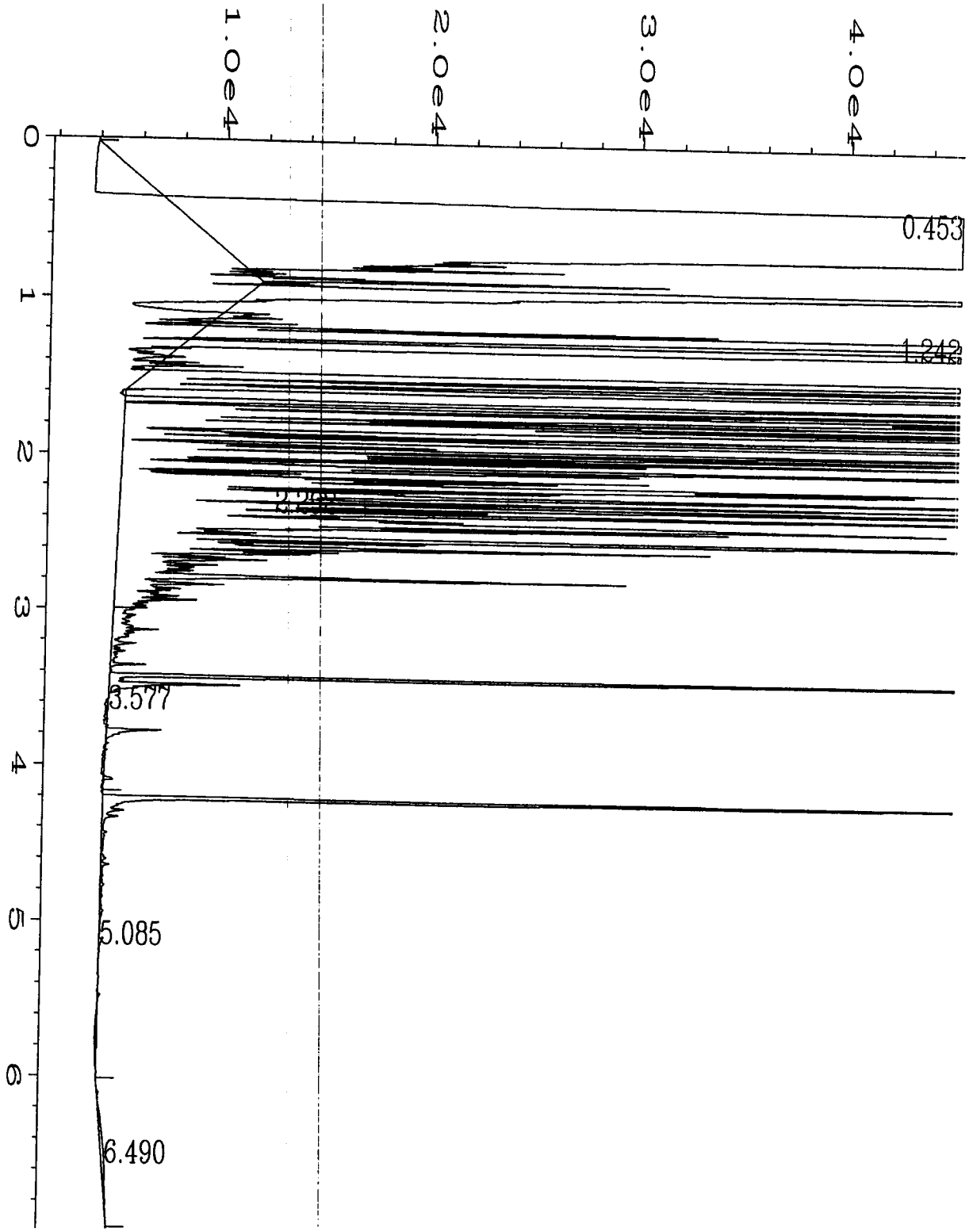
Last modified 4/27/15 mwdl TPHDSL.XLS

Data File Name : C:\HPCHEM\6\DATA\06-08-15\043F0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-02
Run Time Bar Code:
Acquired on 42163 0.8055556

Page Number : 1
Vial Number : 43
Injection Number : 1
Sequence Line : 8

Report Created on: 08 Jun 15 07:30 PM
Analysis Method : DX.MTH

Surr / IS	Ret Time window		Area	Avg. Area		
Triacontane						Calibrated
0	>4.86	<4.90	0	1.00E+05		2/1/11
Pentacosane						
94	>4.16	<4.3	102258	1.09E+05		12/31/14
o-Terphenyl						
95	>3.38	<3.47	117127	1.24E+05		12/31/14
Results			Area	Resp. factor		Calibrated
Diesel, start C10 - start C25						
1	>1.59	<4.16	1.13E+04	9.92E+03		12/31/14
NWTPH-DX, start C10 - end C36						
2	>1.59	<6.0	23653	1.02E+04		12/31/14
Motor Oil, start C25 - end C36						
2	>4.16	<6.0	12387	6.49E+03		12/31/14
Heavy Oil, start C17 - end C36						
2	>2.99	<6.0	18105	8.73E+03		12/31/14
Mineral Oil						
3	>2.99	<6.0	18105	5.55E+03		1/8/15
Stoddard, start C8 - end C11						
2	>0.89	<2.99	19325	9.99E+03		1/16/15
Kerosene, start C8 - end C20						
4	>0.89	<4.16	25043	6.65E+03		1/10/13
C24-C38						
-11	>10.45	<19.8	-102258	9.42E+03		1/27/11



Data File Name : C:\HPCHEM\6\DATA\06-08-15\044F0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-03
Run Time Bar Code:
Acquired on : 08 Jun 15 07:31 PM
Report Created on: 08 Jun 15 07:42 PM

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 8
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Area Percent Report

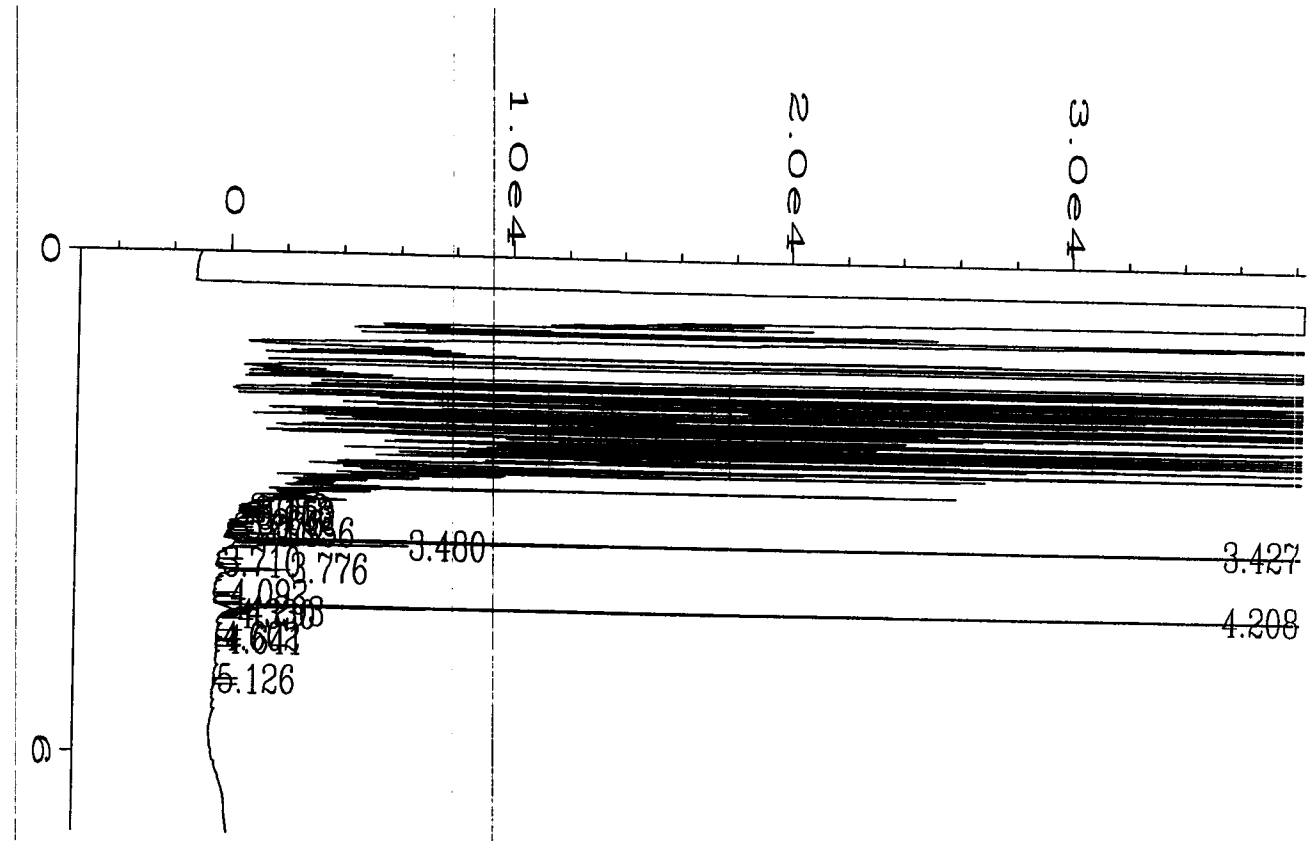
Data File Name : C:\HPCHEM\6\DATA\06-08-15\044F0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-03
Run Time Bar Code:
Acquired on : 08 Jun 15 07:31 PM
Report Created on: 08 Jun 15 07:42 PM

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 8
Instrument Method: DX.MTH
Analysis Method : DX.MTH

Sig. 1 in C:\HPCHEM\6\DATA\06-08-15\044F0801.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	0.453	1.21521E+009	9.83174E+007	BB +	0.000	99.3868
2	1.242	5380881	2217940	BVA	0.040	0.4401
3	2.292	1857744	525421	PV +	0.000	0.1519
4	3.577	143233	244972	VVA	0.010	0.0117
5	5.085	111423	202671	PV +	0.000	0.0091
6	6.490	4227	291	PB +	0.000	0.0003

Total area = 1.22271E+009



Area Percent Report

Data File Name : C:\HPCHEM\6\DATA\06-08-15\044R0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-03
Run Time Bar Code:
Acquired on : 08 Jun 15 07:31 PM
Report Created on: 08 Jun 15 07:42 PM

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 8
Instrument Method: DX.MTH
Analysis Method : istnddx.MTH

Sig. 2 in C:\HPCHEM\6\DATA\06-08-15\044R0801.D

Pk#	Ret Time	Area	Height	Type	Width	Area %
1	3.082	265	350	BB	0.013	0.1106
2	3.113	439	458	BB	0.016	0.1833
3	3.153	1024	512	BB	0.033	0.4277
4	3.222	733	953	BB	0.013	0.3061
5	3.270	488	631	BB	0.013	0.2039
6	3.311	237	182	BB	0.022	0.0992
7	3.356	1070	1834	BB	0.010	0.4470
8	3.427	120151	254621	BB	0.008	50.2038
9	3.480	5718	6204	BB	0.019	2.3890
10	3.710	164	231	BB	0.012	0.0685
11	3.776	1403	2134	BB	0.011	0.5861
12	4.092	638	614	BB	0.017	0.2664
13	4.208	105354	222179	BB	0.018	44.0212
14	4.293	431	733	BB	0.010	0.1801
15	4.330	394	597	BB	0.011	0.1646
16	4.602	178	203	BB	0.016	0.0745
17	4.641	330	340	BB	0.019	0.1377
18	5.126	312	137	BB	0.030	0.1302

Total area = 239326

Last modified 4/27/15 mwdl TPHDSL.XLS

Data File Name : C:\HPCHEM\6\DATA\06-08-15\044F0801.D
Operator : mwdl
Instrument : GC #6
Sample Name : 506179-03
Run Time Bar Code:
Acquired on 42163 0.8131944
Report Created on: 08 Jun 15 07:42 PM

Page Number : 1
Vial Number : 44
Injection Number : 1
Sequence Line : 8
Analysis Method : DX.MTH

Surr / IS	Ret Time window		Area	Avg. Area		
Triacontane						Calibrated
0	>4.86	<4.90	0	1.00E+05		2/1/11
Pentacosane						
97	>4.16	<4.3	105354	1.09E+05		12/31/14
o-Terphenyl						
97	>3.38	<3.47	120151	1.24E+05		12/31/14
Results			Area	Resp. factor		Calibrated
Diesel, start C10 - start C25						
190	>1.59	<4.16	1.88E+06	9.92E+03		12/31/14
NWTPH-DX, start C10 - end C36						
186	>1.59	<6.0	1886895	1.02E+04		12/31/14
Motor Oil, start C25 - end C36						
1	>4.16	<6.0	6069	6.49E+03		12/31/14
Heavy Oil, start C17 - end C36						
3	>2.99	<6.0	29151	8.73E+03		12/31/14
Mineral Oil						
5	>2.99	<6.0	29151	5.55E+03		1/8/15
Stoddard, start C8 - end C11						
725	>0.89	<2.99	7238625	9.99E+03		1/16/15
Kerosene, start C8 - end C20						
1093	>0.89	<4.16	7261707	6.65E+03		1/10/13
C24-C38						
-11	>10.45	<19.8	-105354	9.42E+03		1/27/11