

PRELIMINARY SITE ASSESSMENT

FOR

**PARCEL #906
RICHARD NEWTON PROPERTY
NEWTON SIGN
1713A MARINE BLVD
JACKSONVILLE, ONSLOW COUNTY, NORTH CAROLINA**

**STATE PROJECT: U-4007B
WBS ELEMENT: 35008.1.1
DESCRIPTION: Jacksonville – US 17 from SR 1403 (Country Club Road) to
Western Blvd**

PREPARED FOR:

**NCDOT GEOTECHNICAL ENGINEERING UNIT-GEOENVIRONMENTAL SECTION
1589 MSC
RALEIGH, NORTH CAROLINA 27699-1589**

OCTOBER 6, 2008

PREPARED BY:

**CATLIN ENGINEERS AND SCIENTISTS
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CATLIN PROJECT NO. 208-055

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October 6, 2008

1.0 INTRODUCTION

1.1 PURPOSE OF INVESTIGATION AND DESCRIPTION

CATLIN Engineers and Scientists (CATLIN) was retained by the North Carolina Department of Transportation (NCDOT) Geotechnical Engineering Unit to provide a field investigation concluding with a Preliminary Site Assessment (PSA) for the above referenced property. In response to a Request for Technical and Cost Proposal (RFP) dated August 29, 2008, CATLIN submitted a proposal for conducting an investigation at the above referenced parcel in Jacksonville, North Carolina. Figure 1 illustrates the project vicinity.

According to the RFP:

Advanced acquisition of the right-of-way is necessary for the improvements of NC 17/ Jacksonville Bypass. A PSA is to be performed only within the proposed right-of-way and/or easement unless an uneconomic remnant will be left after acquisition.

The workscope as requested includes:

- Locate all underground storage tanks (USTs) and determine approximate size and contents (if any).
- Determine if contaminated soils are present.
- If contamination is evident, estimate the quantity of impacted soils and indicate the approximate area of soil contamination on a site map.

- Prepare and submit a report including field activities, findings, and recommendations in triplicate and electronically to the NCDOT GeoEnvironmental Section.

CATLIN coordinated and conducted site reconnaissance beginning on September 3, 2008. This report documents our activities and findings.

1.2 BACKGROUND INFORMATION

The subject site has reportedly operated as a sign business since the 1970's. No USTs are known to have been used at the site. No additional historical information regarding the property is known.

2.0 METHODS

2.1 FIELD METHODS

CATLIN personnel performed site reconnaissance and marked proposed boring locations. Proposed borings were in low lying areas of potential surface spill runoff locations and across the site in order to reasonably characterize the property.

Underground utility locating was coordinated by CATLIN personnel. The North Carolina One Call Center (NC-1-Call) was contacted for underground utility location. The NC-1-Call service does not provide utility locating for water and sewer lines in the area or private utilities within the property. The City of Jacksonville Utility Maintenance personnel were subsequently contacted for water and sewer line locating. Private utilities were located within the site by Professional Locating Services (PLS). The City of Jacksonville and PLS personnel were met on site by CATLIN personnel and the areas around the proposed boring locations were checked and found to be clear of any underground utilities.

Nine (9) soil boring/sample locations (DPT-01 through DPT-09) were established across the site. Site photographs taken during sampling activities are provided in Appendix A. The boring coordinates were collected utilizing a Trimble® Global Positioning System (GPS) unit. A North Carolina certified well driller advanced and properly abandoned all borings. CATLIN personnel gathered subsurface soil data at the site by Direct Push Technology (DPT) boring advancement using an AMS PowerProbe™ 9600D (PowerProbe). When using the PowerProbe, the borings are advanced to depth by static force and a 90-pound hydraulic percussion hammer. Two and one-quarter inch diameter by four-foot length steel is used as casing. Soil samples are continuously collected in one and one-half inch clear liners. Liners are removed from the casing and then cut in half longitudinally to allow for visual/manual classification utilizing the Unified Soil Classification System (USCS). Soil boring

information was recorded on field logs and have been summarized on the boring logs provided in Appendix B. Soil samples were collected continuously from near the surface to four feet below land surface (BLS).

Depth to water (DTW) was estimated based on saturated soils. No wells were installed and no groundwater samples were collected during this investigation.

Soil samples were collected for laboratory analysis above the water table at approximately two to three feet BLS. New disposable nitrile gloves were worn during sampling activities. All samples were placed into laboratory provided glassware and packed on ice in an insulated cooler for transportation to the laboratory. Sample integrity was maintained by following proper Chain of Custody procedures. A copy of the Chain of Custody is provided following the analytical report in Appendix C.

Boreholes were abandoned to the surface using three-eighth inch bentonite chips. Bentonite and water were poured into the borehole simultaneously to facilitate hydration. Final borehole and sample locations were surveyed utilizing a Trimble® GPS survey instrument. Borehole locations and site features are illustrated on Figure 2.

2.2 LABORATORY TESTING

Following boring advancement, soils were removed from the liners and placed in the appropriately labeled glassware. In an attempt to provide information regarding petroleum impacts to soils with reasonable analytical expense, soil samples were analyzed for total petroleum hydrocarbon (TPH) diesel and gasoline range organics (DRO and GRO) by Environmental Protection Agency (EPA) Methods 5030 and 3550 with analysis by modified 8015.

A total of nine (9) soil samples were submitted to SGS Environmental Services, Inc. (SGS), NC Certification # 481 for analysis per EPA Methods 3550 and 5030 by modified 8015. Chain of Custody documentation is included in Appendix C.

3.0 RESULTS

In the event a cut is required for roadway construction, any detectable petroleum contamination will be considered impacted for handling and disposal purposes. Because this is an advanced ROW acquisition PSA, it is not certain what area may be included as a cut or fill section. For that reason, any soil samples revealing detectable TPH laboratory concentrations are considered petroleum impacted.

Sandy soils with varying amounts of silt and/or clay were encountered across the project location. Saturated soils were encountered near the bottom (three to four feet BLS) of each boring. Complete boring logs are provided in Appendix B.

Summarized soil sample analytical results are provided on Table 1. Sample locations and summarized results are illustrated on Figure 2. The complete analytical report is provided in Appendix C.

No TPH GRO concentrations were detected. Seven of the nine soil samples revealed detectable concentrations of TPH DRO. The DRO concentrations ranged from below the reporting limits (borings DPT-01 and DPT-07) to 53.1 milligrams per kilogram (mg/Kg) at the DPT-03 boring location (see Figure 2).

As illustrated on Figure 2, the estimated extent of petroleum (TPH DRO) impacted soils covers the majority of the site. Based on the lateral limits illustrated, approximately 46,500 square feet of impacted soil are across the site. Assuming a depth to water of three feet BLS, 5,166 cubic yards of impacted soil may be encountered above the water table across the site.

4.0 SUMMARY AND DISCUSSION

A preliminary site assessment was conducted at the subject site as requested by NCDOT in conjunction with advanced right-of-way acquisition for the US 17 Jacksonville Bypass construction. A total of nine (9) soil borings were advanced across the site and a soil sample was collected from each boring for laboratory analysis. Sandy soils were encountered during boring advancement. Total petroleum hydrocarbon DRO was revealed in seven of the nine soil samples.

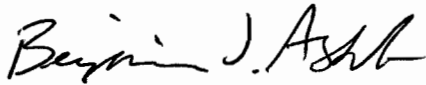
The source of the TPH DRO impacted soils is unknown. According to conversations and information provided with the analytical report in Appendix C, the TPH DRO results are not necessarily indicative of a diesel release or diesel contamination. The laboratory report provided in Appendix C includes a Case Narrative, the analytical chromatograms for the site soil samples, and the standard diesel chromatogram. According to the SGS project manager, the chromatograms are more indicative of a heavier petroleum distillate than diesel.

Based on the TPH DRO results, the majority of the soil across the site may have to be managed as petroleum impacted waste if disturbed during roadway construction. For volume estimate purposes, soils above the approximate, current, DTW (three feet BLS) were included in the impacted soil volume. Any soils disturbed (including those soils below the water table) within the estimated lateral extent illustrated on Figure 2, may be petroleum impacted. According to preliminary information provided by NCDOT, a majority of the Newton property is within a proposed "fill" section and would not be disturbed during construction. Actual impacted soil volume requiring management will be determined by final design criteria.

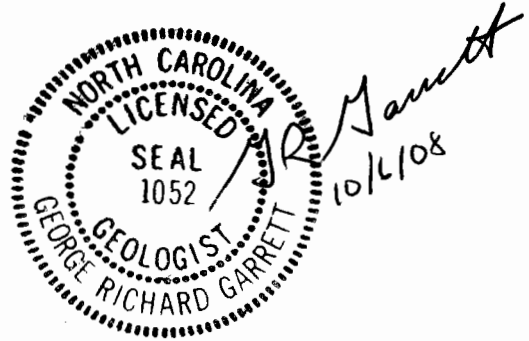
5.0 LIMITATIONS

This report is based on the agreed work scope and a review of available data from limited sampling. It is possible that this investigation may have failed to reveal the presence of contamination in the project area where such contamination may exist. Although CATLIN has used accepted methods appropriate for soil sampling, CATLIN cannot guarantee that additional soil and/or groundwater contamination does not exist.

6.0 SIGNATURES



Benjamin J. Ashba
Project Manager



G. Richard Garrett, P.G.
Contract Manager

TABLES

**TABLE 1
SUMMARY OF SOIL LABORATORY RESULTS –
TOTAL PETROLEUM HYDROCARBONS –
DIESEL AND GASOLINE RANGE ORGANICS**

**Parcel # 906, Richard Newton Property
Newton Sign
1713A Marine Blvd.**

Sample ID	Contaminant of Concern →		Diesel Range Organics	Gasoline Range Organics
	Date Collected	Sample Depth (ft. BLS)		
DPT-01 2-3'	9/18/2008	2 - 3	BRL	BRL
DPT-02 1.5-2.5'	9/18/2008	1.5 - 2.5	32.3	BRL
DPT-03 2-3'	9/18/2008	2 - 3	53.1	BRL
DPT-04 2-3'	9/18/2008	2 - 3	25.7	BRL
DPT-05 2-3'	9/18/2008	2 - 3	19.0	BRL
DPT-06 2-3'	9/18/2008	2 - 3	20.0	BRL
DPT-07 2-3'	9/18/2008	2 - 3	BRL	BRL
DPT-08 2-3'	9/18/2008	2 - 3	12.3	BRL
DPT-09 2-3'	9/18/2008	2 - 3	9.91	BRL

All results in milligrams per Kilogram (mg/Kg).

ft. BLS = Feet Below Land Surface

BRL = Below Reporting Limit

Refer to analytical report for a complete list of reporting limits.

FIGURES

DESCRIPTION:
NEWTON SIGN
 1713A MARINE BLVD.
 JACKSONVILLE



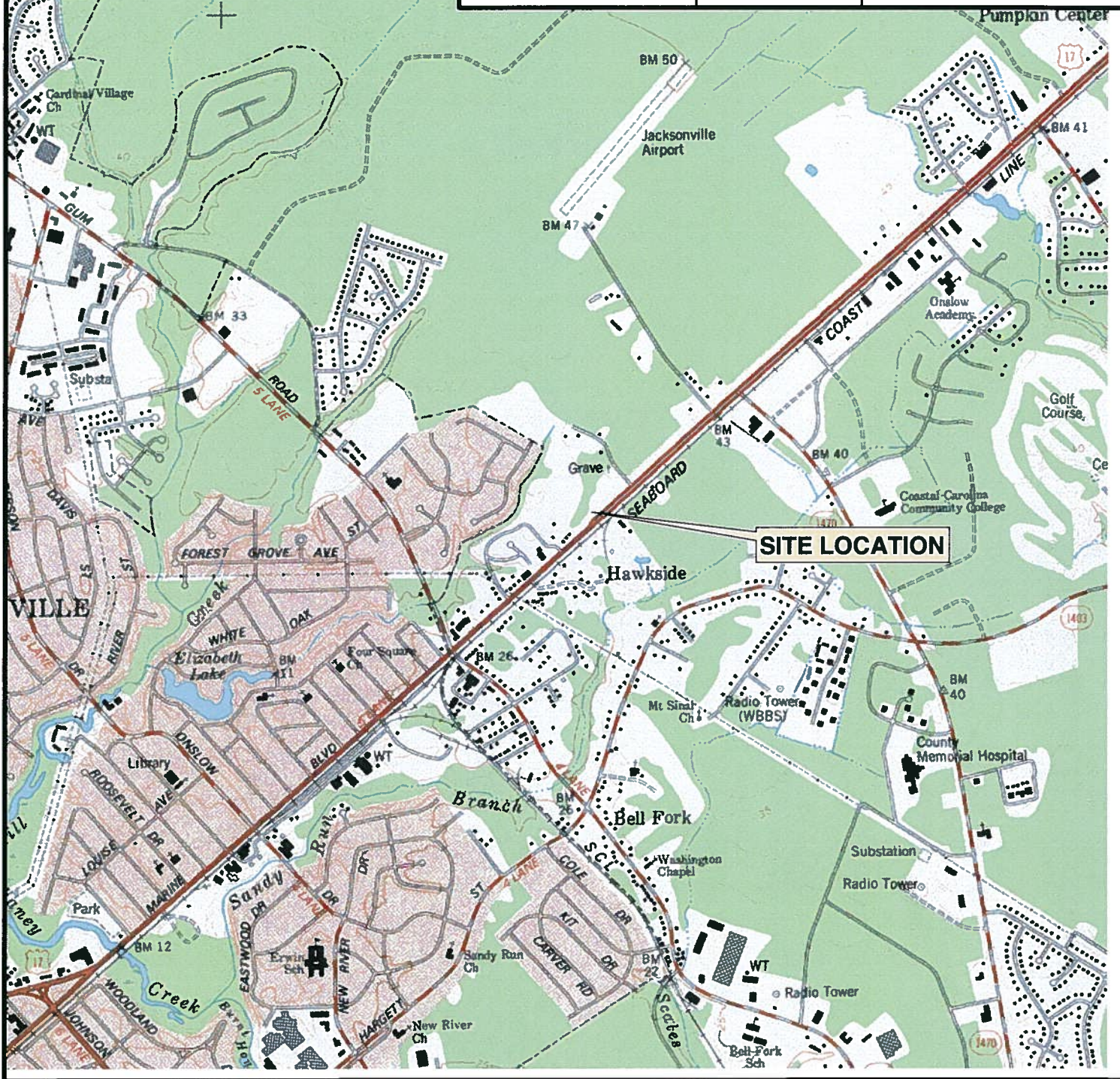
WBS ELEM: 35008.1.1 FIGURE No: 1
 ST PROJ: U-4007B TOTAL FIGURES: 2
 FA No: N/A
 COUNTY: ONSLOW

PREPARED BY:

CATLIN
 Engineers and Scientists
 208-055

SCALE:
AS SHOWN

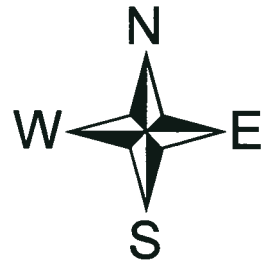
TITLE:
**USGS TOPOGRAPHIC
 GENERAL LOCATION
 MAP**



Source: Topozone.com download USGS Topographic Quadrangle, (Jacksonville North, NC)



SCALE

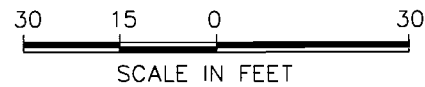


Sample ID	Contaminant of Concern →		Diesel Range Organics	Gasoline Range Organics
	Date Collected	Sample Depth (ft. BLS)		
DPT-01 2-3'	9/18/2008	2 - 3	BRL	BRL
DPT-02 1.5-2.5'	9/18/2008	1.5 - 2.5	32.3	BRL
DPT-03 2-3'	9/18/2008	2 - 3	53.1	BRL
DPT-04 2-3'	9/18/2008	2 - 3	25.7	BRL
DPT-05 2-3'	9/18/2008	2 - 3	19.0	BRL
DPT-06 2-3'	9/18/2008	2 - 3	20.0	BRL
DPT-07 2-3'	9/18/2008	2 - 3	BRL	BRL
DPT-08 2-3'	9/18/2008	2 - 3	12.3	BRL
DPT-09 2-3'	9/18/2008	2 - 3	9.91	BRL

All results in milligrams per Kilogram (mg/Kg).
 ft. BLS = Feet Below Land Surface
 BRL = Below Reporting Limit
 Refer to analytical report for a complete list of reporting limits.

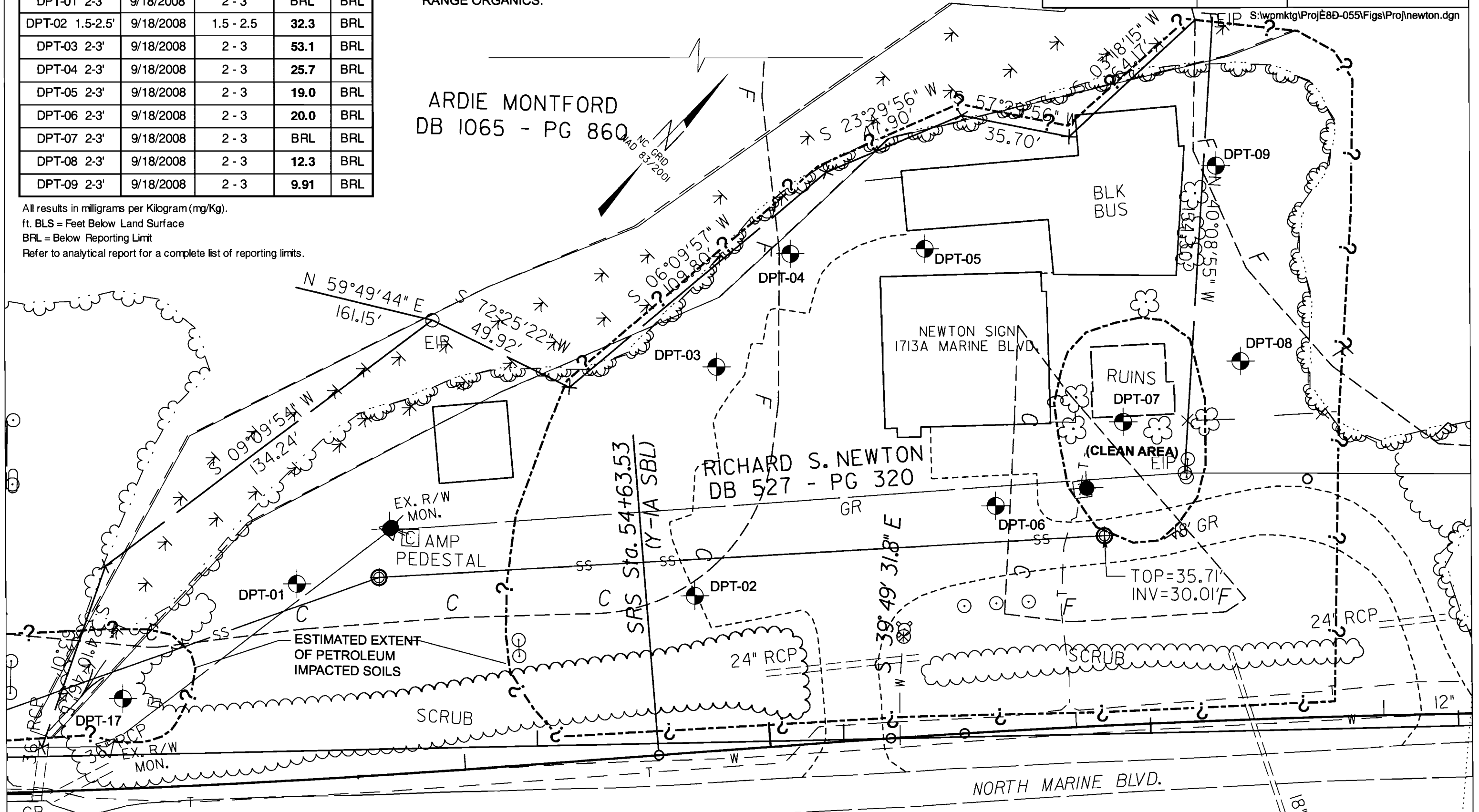
LEGEND

SOIL BORING & SOIL SAMPLE



DESCRIPTION: NEWTON SIGN 1713A MARINE BLVD JACKSONVILLE	ENGLISH	WBS ELEM.: 35008.1.1 TIP NO.: U-4007B F.A. NO.: N/A COUNTY: ONSLOW	FIGURE NO.: 2 TOTAL FIGURES: 2
PREPARED BY: CATLIN Engineers and Scientists 220 Old Dairy Road Wilmington, NC 28405	SCALE: AS SHOWN	TITLE: SITE MAP WITH SOIL SAMPLE LOCATIONS AND SUMMARIZED RESULTS	

- NOTES:
 1. BASE MAP ADAPTED FROM NCDOT SUPPLIED DRAWING.
 2. BORING DPT-17 ADVANCED DURING ADJACENT PROPERTY PRELIMINARY SITE ASSESSMENT. THE SOIL SAMPLE COLLECTED AT DPT-17 FROM 1 TO 2 FT. BLS REVEALED 9.14 mg/Kg DIESEL RANGE ORGANICS.



APPENDICES

APPENDIX A
SITE PHOTOGRAPHS

PHOTOGRAPHS

**Parcel #906
Richard Newton Property
Newton Sign
1713A Marine Blvd.
Jacksonville, NC**



Looking Southwest along N. Marine Blvd. –
Note: DPT-01 is located beneath the
billboard and Pink flag at DPT-02 location
near edge of parking lot and grass



Looking across Northwest portion of property
– Note: Pink flag at DPT-03 boring (middle left
portion of picture) and DPT-04 (near corner of
building at edge of parking lot and grass).



Looking Northeast between the back of the
store front (on the right) and shop (on the
left) – Note: DPT-05 marking in pink



Looking Southwest across parking lot in front
of sign shop – Note: DPT-06 located near red
car

PHOTOGRAPHS

**Parcel #906
Richard Newton Property
Newton Sign
1713A Marine Blvd.
Jacksonville, NC**



Looking West at southeastern corner of sign store – Note DPT-07 at pink flag in front of car and shed



Looking Northwest at southeastern corner of sign shop – Note: Pink flags at DPT-08 in foreground and DPT-09 in background

APPENDIX B
BORING LOGS

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-01
NORTHING: 375,904.70		EASTING: 2,480,404.40	DRILLER: Bobbie D. Fowler
SYSTEM: NCSP NAD 83 (USft)		BORING LOCATION:	CREW:
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT				MOI.	OVA RESULTS (ppm)				LAB.	U S C S	L O G	SOIL AND ROCK DESCRIPTION	
	0.5	0.5	0.5	0.5		0	1000	2000	3000				4000	DEPTH
0.0													0.0	LAND SURFACE
					M						SP		1.3	Tan fine SAND w/ few fines.
											SC/ SM		1.8	Tan SILTY to CLAYEY SAND. No odor.
2.0					W						SP			Olive/light brown fine SAND. No odor. Wet @ 3.25'.
4.0													4.0	Boring Terminated at Depth 4.0 ft

DPT-01
(2-3')
@
1430
on
9/18/08

CATLIN ENVIRO. LOG_208-055--NCDOT-NEWTON GEL_CATLIN.GDT_10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW




BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
208-055
Wilmington, NC


WBS Element: 35008.1.1
TIP Number: U-4007


SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-02
DRILLER: Bobbie D. Fowler			
NORTHING: 375,991.95	EASTING: 2,480,501.02	CREW:	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION:		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	SOIL AND ROCK	
							DEPTH	DESCRIPTION
0.0							0.0	LAND SURFACE
					GW		0.5	Crush-n-run GRAVEL FILL.
		M		DPT-02 (1.5-2.5') @ 1415 on 9/18/08	SM		1.8	Black organic SILTY SAND. No odor.
2.0					SC/ SM		4.0	Tan and gray SILTY to CLAYEY fine SAND. No odor. Wet @ 3'.
4.0								Boring Terminated at Depth 4.0 ft

CATLIN\ENVIRO_LOG_208-055-NCDDOT\NEWTON.GPJ.CATLIN.GDT_10/2/08

 = 0hr. DTW

 = 24hr. DTW



BORING LOG

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ENGINEERS and SCIENTISTS
208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-03
DRILLER: Bobbie D. Fowler		CREW:	
NORTHING: 376,051.37	EASTING: 2,480,454.24		
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION:	LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	SOIL AND ROCK		
							DEPTH	DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
					GW		0.5	Crush-n-run GRAVEL FILL.	
		M		DPT-03 (2-3') @ 1445 on 9/18/08					
2.0					SP			Black organic fine SAND. Changes to brown color at 3.5' BLS. Wet @ 3'. No odor.	
		W							
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN\ENVIRO_LOG_208-055-NCDDOT\NEWTON.GPJ.CATLIN.GDT_10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-04
NORTHING: 376,094.85		EASTING: 2,480,445.97	CREW:
SYSTEM: NCSP NAD 83 (USft)		BORING LOCATION:	LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	USCS	LOG	SOIL AND ROCK DESCRIPTION	
							DEPTH	ELEVATION
0.0							0.0	LAND SURFACE
					GW		0.3	Crush-n-run GRAVEL FILL.
					GW		0.8	CONCRETE.
		M		DPT-04 (2-3') @ 1515 on 9/18/08	SC/ SM		1.8	Tan to olive SILTY to CLAYEY fine SAND. No odor.
2.0					SM			Black organic SILTY SAND. No odor. Wet @ 3'.
4.0							4.0	Boring Terminated at Depth 4.0 ft

CATLIN ENVIRO. LOG_208-055-NCDDOT-NEWTON.GPJ.CATLIN.GDT_10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-05
DRILLER: Bobbie D. Fowler			
NORTHING: 376,126.38	EASTING: 2,480,476.56	CREW:	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION:	LAND ELEV.: NM	
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	DEPTH	SOIL AND ROCK DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
							0.5	CONCRETE.	
		M		DPT-05 (2-3') @ 1530 on 9/18/08			1.3	Tan SILTY to CLAYEY fine SAND.	
2.0								Black organic SILTY fine SAND. No odor. Wet @ 3'.	
		W					3.3	Tan to gray CLAYEY to SILTY fine SAND. No odor.	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO. LOG 208-055 - NCDOT NEWTON.GPJ CATLIN.GDT 10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW


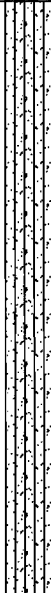

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-06
NORTHING: 376,081.27	EASTING: 2,480,551.55	DRILLER: Bobbie D. Fowler	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION:	CREW:	LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	SOIL AND ROCK		
							DEPTH	DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
					GW		0.5	Crush-n-run GRAVEL FILL.	
		M		DPT-06 (2-3') @ 1330 on 9/18/08				Black organic SILTY SAND. No odor.	
2.0					SM				
		W					3.0	Tan and gray SILTY to CLAYEY SAND. No odor. Wet @ 3.5'.	
4.0					SC/ SM		4.0	Boring Terminated at Depth 4.0 ft	

CATLIN.ENVIRO.LOG_208-055 - NCDOT NEWTON.G.P.I.CATLIN.GDT_10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

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WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-07
NORTHING: 376,129.90		EASTING: 2,480,562.46	CREW: Bobbie D. Fowler
SYSTEM: NCSP NAD 83 (USft)		BORING LOCATION:	LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	SOIL AND ROCK		
							DEPTH	DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
		M		DPT-07 (2-3') @ 1345 on 9/18/08	SC/ SM			Olive to tan SILTY to CLAYEY SAND w/ gravel.	
2.0							2.0		
		W			SM/ CL			Tan to gray SANDY CLAY. Moderate plasticity. No odor. Wet @ 3.25'.	
4.0							4.0		Boring Terminated at Depth 4.0 ft

CATLIN\ENVIRO.LOG 208-055 - NCDOT\NEWTON.GPJ CATLIN.GDI 10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-08
DRILLER: Bobbie D. Fowler			
NORTHING: 376,170.79	EASTING: 2,480,576.25	CREW:	
SYSTEM: NCSP NAD 83 (USft)	BORING LOCATION:		LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	SOIL AND ROCK		
							DEPTH	DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
					GW		0.3	Crush-n-run GRAVEL FILL.	
		M		DPT-08 (2-3') @ 1415 on 9/18/08	SM		1.5	Black organic SILTY SAND. No odor.	
2.0					SC/ SM			Tan SILTY to CLAYEY fine SAND. No odor. Wet @ 3'.	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN ENVIRO. LOG 208-055 - NCDOT NEWTON.GPJ.CATLIN.GDT 10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

BORING LOG

CATLIN
ENGINEERS and SCIENTISTS
208-055
Wilmington, NC

WBS Element: 35008.1.1
TIP Number: U-4007

SHEET 1 OF 1

PROJECT NO.: 208-055	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Newton Property		LOGGED BY: Steve Tyler	BORING ID: DPT-09
NORTHING: 376,211.62		EASTING: 2,480,526.24	CREW:
SYSTEM: NCSP NAD 83 (USft)		BORING LOCATION:	LAND ELEV.: NM
DRILL MACHINE: Power Probe	METHOD: Direct Push	0 HOUR DTW:	BORING DEPTH: 4.0
START DATE: 9/18/08	FINISH DATE: 9/18/08	24 HOUR DTW:	ROCK DEPTH: --

DEPTH	BLOW COUNT 0.5 0.5 0.5 0.5	MOI.	OVA RESULTS (ppm) 0 1000 2000 3000 4000	LAB.	U S C S	L O G	SOIL AND ROCK		
							DEPTH	DESCRIPTION	ELEVATION
0.0							0.0	LAND SURFACE	
		M			SC/ SM		1.3	Olive to tan SILTY to CLAYEY SAND w/ gravel (FILL).	
2.0		W			SM			Black organic SILTY SAND. No odor. Wet @ 3'.	
4.0							4.0	Boring Terminated at Depth 4.0 ft	

CATLIN\ENVIRO.LOG_208-055 - NCGDOT NEWTON.GPJ.CATLIN.GDT_10/2/08

▽ = 0hr. DTW

▼ = 24hr. DTW

APPENDIX C
LABORATORY REPORT AND CHAIN OF CUSTODY RECORD



Rick Garrett
Richard Catlin & Associates
220 Old Dairy Rd.
Wilmington, NC 28405

Report Number: G128-2246

Client Project: Newton

Dear Rick Garrett,

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Ashley Nifong at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS Environmental Services, Inc.

Ashley Nifong
REVISED
2008.10.02 16:32:15 -04'00'

Project Manager
Ashley Nifong

Date

CASE NARRATIVE
Richard Catlin & Associates

SGS Laboratory Number: G128-2246

DATE: October 2, 2008

SAMPLE RECEIPT OBSERVATIONS:

The samples were received September 19, 2008 at 1205 via courier in good condition. The samples arrived with a temperature of 4.1 ° C.

All extractions and analyses were completed within holding time and without quality control exception.

Five of the samples had DRO detections and two of the samples had low DRO detections. Applicable chromatographic similarities to known standard patterns are noted below. The following observations were made and can be used as a general guide. Additional testing may be required for a definitive characterization of the contamination.

<u>CLIENT SAMPLE ID</u>	<u>APPEARANCE OF CONTAMINATION</u>
DPT-02 1.5-2.5'	Similar to residual oil range organics
DPT-03 2-3'	Similar to residual oil range organics
DPT-04 2-3'	Similar to residual oil range organics
DPT-05 2-3'	Similar to residual oil range organics
DPT-06 2-3'	Similar to residual oil range organics
DPT-08 2-3'	Similar to residual oil range organics at a low detection
DPT-09 2-3'	Similar to residual oil range organics at a low detection



Ashley Conklin
2008.10.02 14:27:55 -04'00'

Date _____

Data Review _____

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% solids = Percent Solids

Special Notes:

- 1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.
- 2) Uncertainty for all reported data is less than or equal to 30 percent.



Print Date: 10/2/2008

Client Sample ID: **DPT-02 1.5-2.5**
Client Project ID: Newton
Lab Sample ID: G128-2246-1D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:15
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 86.51
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	32.3	7.05		MG/KG	1		23-Sep-08 1:13

Surrogates

OTP	84.1	40-140		%	1		23-Sep-08 1:13
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Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.8
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-03 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-2D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:45
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 79.77
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	53.1	7.64		MG/KG	1		23-Sep-08 1:42
Surrogates							
OTP	81.8	40-140		%	1		23-Sep-08 1:42

Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.82
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-04 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-3D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 15:15
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 66.46
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	25.7	9.17		MG/KG	1		23-Sep-08 2:10
Surrogates							
OTP	67.7	40-140		%	1		23-Sep-08 2:10

Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.8
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-05 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-4D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 15:30
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 86.10
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	19.0	7.11		MG/KG	1		23-Sep-08 2:39

Surrogates

OTP	77	40-140		%	1		23-Sep-08 2:39
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Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.67
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-06 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-5D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 13:30
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 75.16
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	20.0	7.89		MG/KG	1		23-Sep-08 3:07

Surrogates

OTP	70.3	40-140		%	1		23-Sep-08 3:07
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Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 33.71
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-07 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-6D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 13:45
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 88.19
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	BQL	6.78		MG/KG	1		23-Sep-08 3:36
Surrogates							
OTP	86.8	40-140		%	1		23-Sep-08 3:36

Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 33.43
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-08 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-7D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:15
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 83.16
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	12.3	7.35		MG/KG	1		23-Sep-08 4:04

Surrogates

OTP	78.2	40-140		%	1		23-Sep-08 4:04
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Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.7
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-09 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-8D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:00
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 88.62
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	9.91	7.00		MG/KG	1		23-Sep-08 4:32

Surrogates

OTP	78.5	40-140		%	1		23-Sep-08 4:32
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Batch Information

Analytical Batch: EP092208
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.25
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-01 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-9D
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:30
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 90.40
Basis: Dry

Results by 8015DRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Diesel Range Organics	BQL	6.80		MG/KG	1		23-Sep-08 12:54

Surrogates

OTP	79.6	40-140		%	1		23-Sep-08 12:54
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Batch Information

Analytical Batch: EP092308
Analytical Method: 8015DRO
Instrument: GC6
Analyst: EAW

Prep Batch:
Prep Method: 3541
Prep Date/Time:
Initial Prep Wt./Vol.: 32.55
Prep Extract Vol: 10



Print Date: 10/2/2008

Client Sample ID: **DPT-02 1.5-2.5**
Client Project ID: Newton
Lab Sample ID: G128-2246-1A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:15
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 86.51
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	6.02		MG/KG	1		23-Sep-08 13:42

Surrogates

BFB	93.2	70-130		%	1		23-Sep-08 13:42
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Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 5.76
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-03 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-2A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:45
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 79.77
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.77		MG/KG	1		23-Sep-08 14:09

Surrogates

BFB	98.9	70-130		%	1		23-Sep-08 14:09
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Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.52
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-04 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-3A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 15:15
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 66.46
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	8.61		MG/KG	1		23-Sep-08 14:35

Surrogates

BFB	100	70-130		%	1		23-Sep-08 14:35
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Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 5.24
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-05 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-4A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 15:30
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 86.10
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.68		MG/KG	1		23-Sep-08 15:02

Surrogates

BFB	97.7	70-130		%	1		23-Sep-08 15:02
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Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.13
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-06 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-5A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 13:30
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 75.16
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.91		MG/KG	1		23-Sep-08 15:29

Surrogates

BFB	93.8	70-130		%	1		23-Sep-08 15:29
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Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.75
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-07 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-6A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 13:45
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 88.19
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.50		MG/KG	1		23-Sep-08 15:56

Surrogates

BFB	93.2	70-130		%	1		23-Sep-08 15:56
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Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.19
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-08 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-7A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:15
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 83.16
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.63		MG/KG	1		23-Sep-08 16:23

Surrogates

BFB	91	70-130		%	1		23-Sep-08 16:23
-----	----	--------	--	---	---	--	-----------------

Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.41
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-09 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-8A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:00
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 88.62
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.00		MG/KG	1		23-Sep-08 16:49

Surrogates

BFB	93.2	70-130		%	1		23-Sep-08 16:49
-----	------	--------	--	---	---	--	-----------------

Batch Information

Analytical Batch: VP092308
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.77
Prep Extract Vol: 5



Print Date: 10/2/2008

Client Sample ID: **DPT-01 2-3'**
Client Project ID: Newton
Lab Sample ID: G128-2246-9A
Lab Project ID: G128-2246

Collection Date: 18-Sep-08 14:30
Received Date: 19-Sep-08
Matrix: SOIL
Solids: 90.40
Basis: Dry

Results by 8015GRO

<u>Parameter</u>	<u>Result</u>	<u>RL/CL</u>	<u>MDL</u>	<u>Units</u>	<u>DF</u>	<u>Qual</u>	<u>Date Analyzed</u>
Gasoline Range Organics	BQL	5.36		MG/KG	1		25-Sep-08 16:50

Surrogates

BFB	101	70-130		%	1		25-Sep-08 16:50
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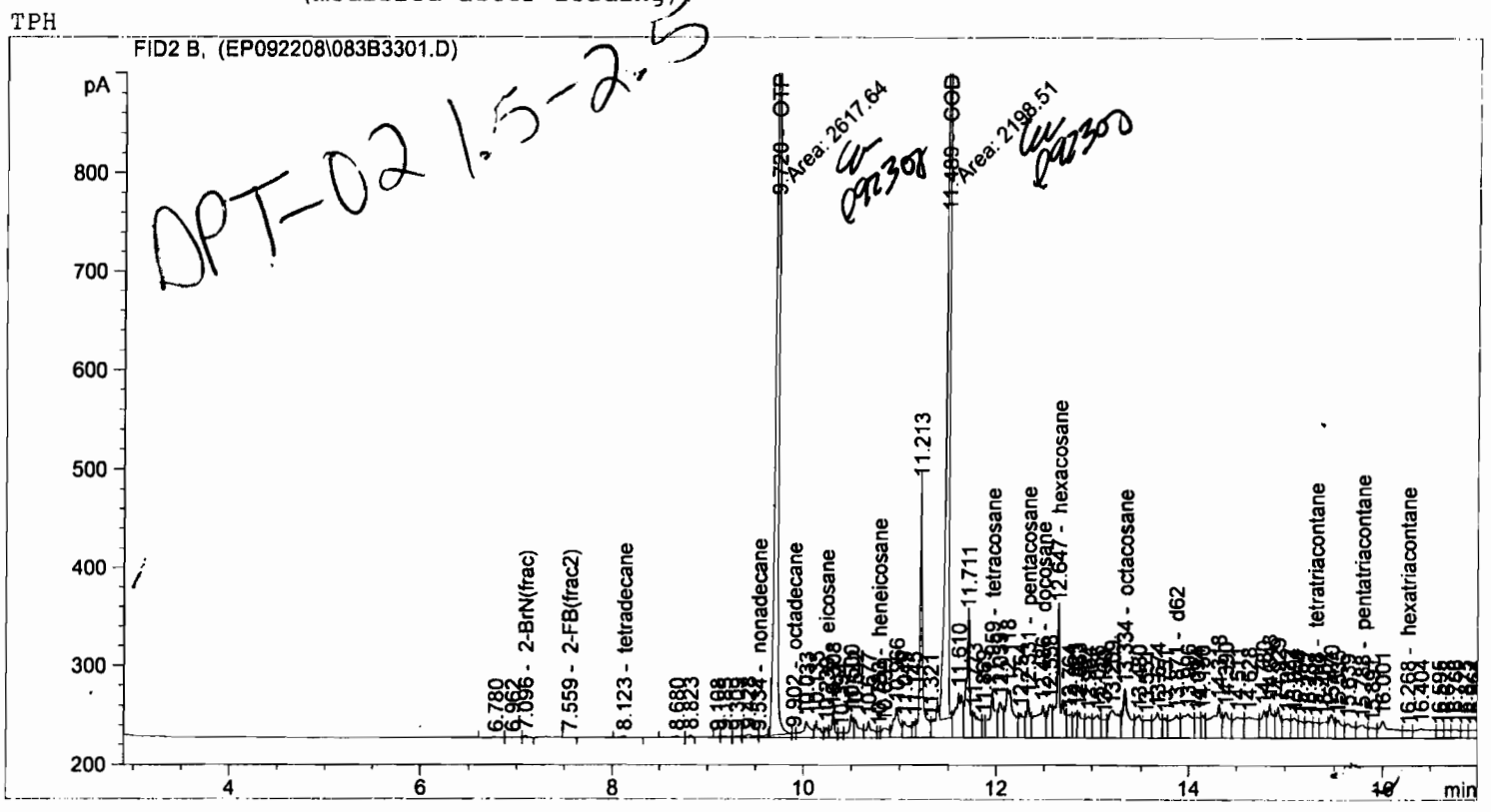
Batch Information

Analytical Batch: VP092508
Analytical Method: 8015GRO
Instrument: GC4
Analyst: DVG

Prep Batch:
Prep Method: 5035
Prep Date/Time:
Initial Prep Wt./Vol.: 6.19
Prep Extract Vol: 5

Injection Date : 9/23/2008 1:13:51 AM Seq. Line : 33
 Sample Name : G128-2246-1D x1 Location : Vial 83
 Acq. Operator : EAW Inj : 1
 Acq. Instrument : GC6 Inj Volume : 10 µl
 Acq. Method : C:\HPCHEM\1\METHODS\DCSEPHB.M
 Last changed : 9/11/2008 11:04:07 AM by EAW
 Analysis Method : C:\HPCHEM\1\METHODS\EPHTK_R.M
 Last changed : 9/22/2008 10:52:03 AM by EAW
 (modified after loading)

EW
092308



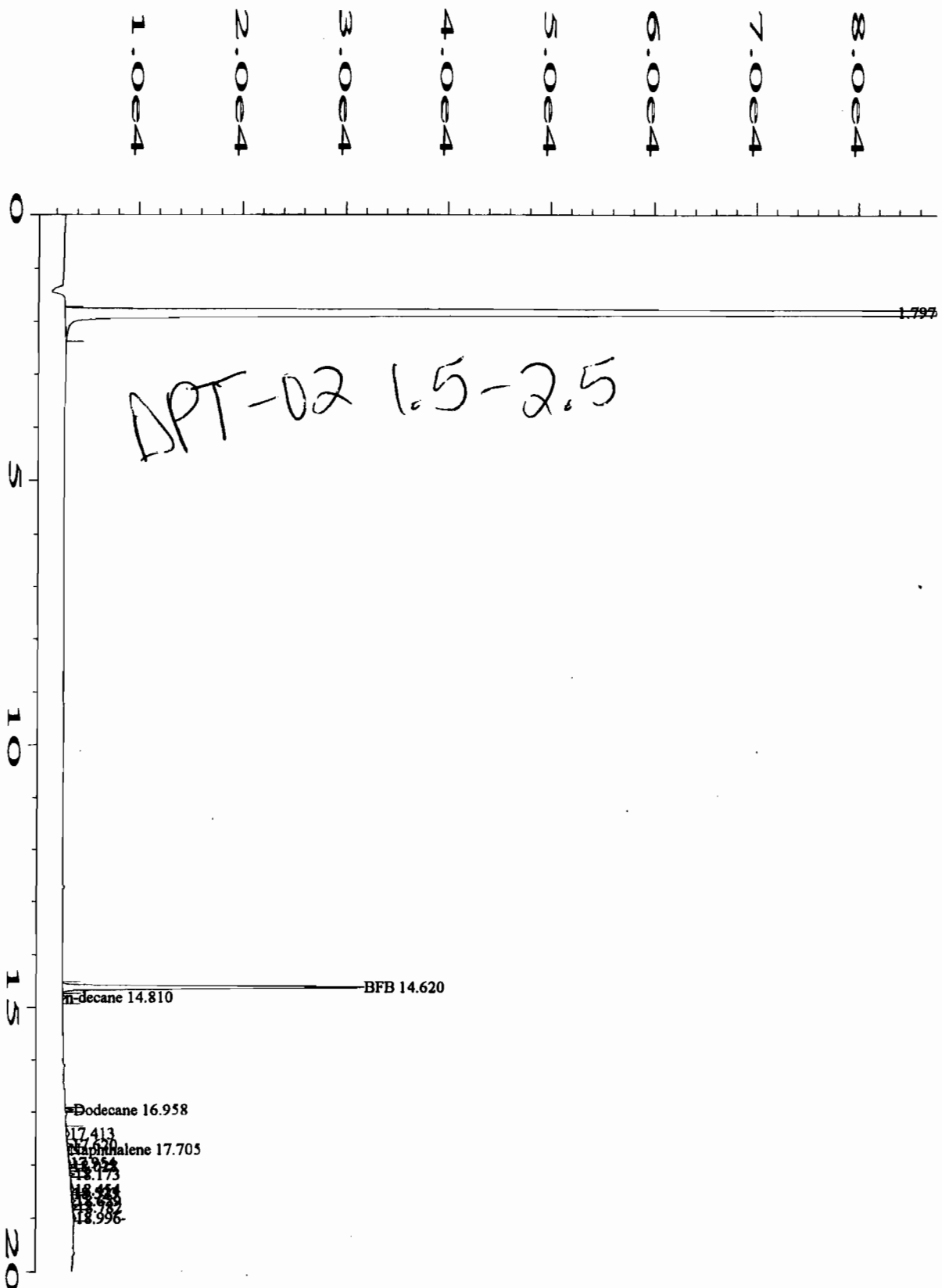
Area Percent Report

Sorted By : Signal
 Calib. Data Modified : 9/22/2008 10:52:08 AM
 Multiplier : 1.0000
 Dilution : 1.0000
 Use Multiplier & Dilution Factor with ISTDs

Result
on
Range
of
PHHMS
2000

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.096	VV	0.0289	4.56784	2.497e-5	2-BrN(frac)
5	7.559	VV	0.0635	4.78949	2.618e-5	2-FB(frac2)
6	8.123	VV	0.0839	11.87304	6.489e-5	tetradecane
7	8.223		0.0000	0.00000	0.00000	hexadecane
8	9.534	VV R	6.54e-4	60.36457	0.00033	nonadecane
9	9.720	MM T	0.0264	2617.64136	0.01431	OTP
10	9.902	VV	0.0337	12.45859	6.810e-5	octadecane
11	10.239	VV	0.0319	23.51666	0.00013	eicosane
12	10.783	VV	0.0308	14.42598	7.885e-5	heneicosane



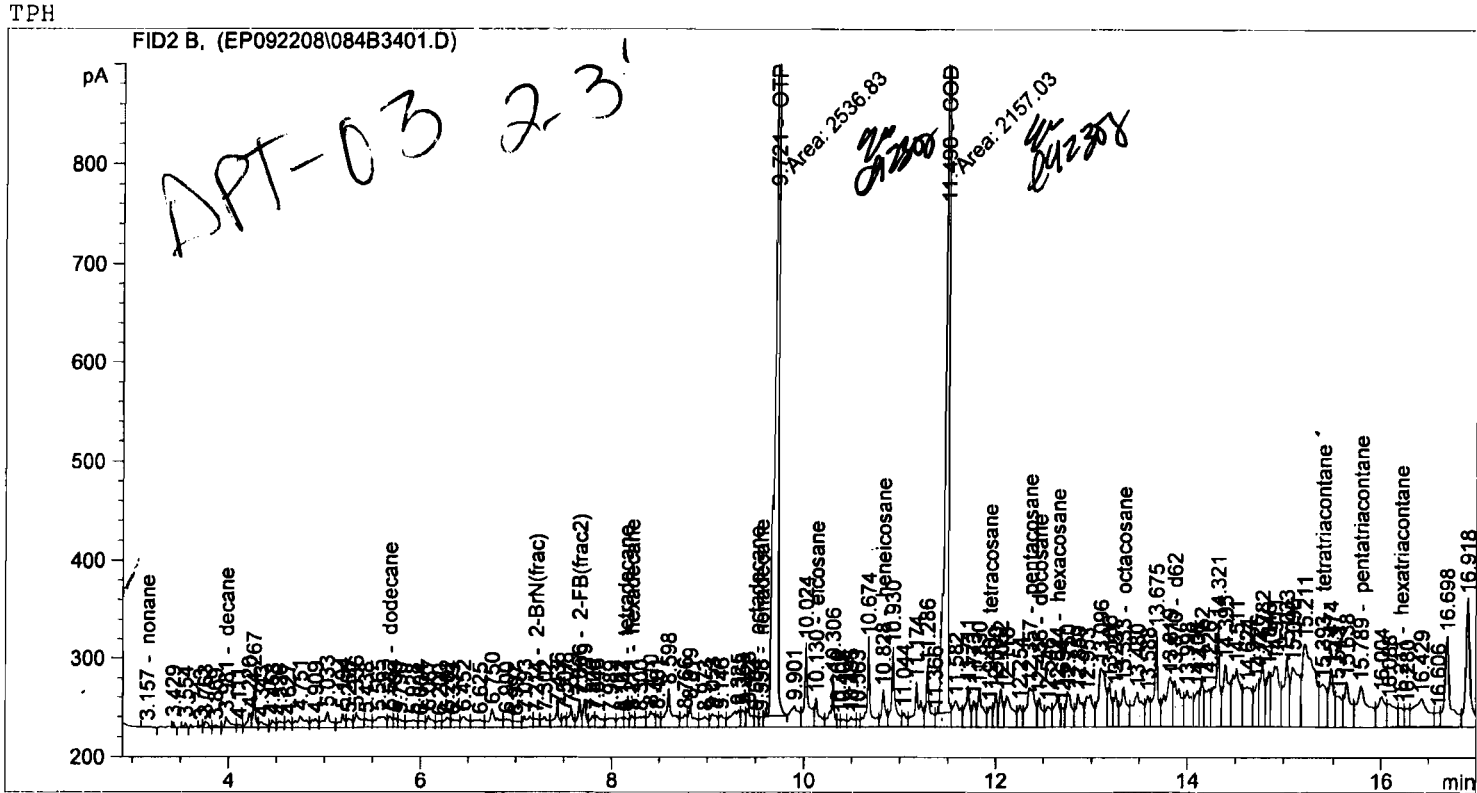
DPT-02 1.5-2.5

Data File Name	: C:\HPCHEM\1\DATA\vp092308\013F0101.D	Page Number	: 1
Operator	: DVG	Vial Number	: 13
Instrument	: GC4	Injection Number	: 1
Sample Name	: g128-2246-1a x1	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	GAS2.MTH
Acquired on	: 23 Sep 08 01:42 PM	Analysis Method	: VPH_FIDG.MTH
Report Created on:	24 Sep 08 08:01 AM	Sample Amount	: 0
Last Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
Multiplier	: 1		

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=====
Injection Date : 9/23/2008 1:42:33 AM      Seq. Line : 34
Sample Name    : G128-2246-2D x1           Location  : Vial 84
Acq. Operator  : EAW                       Inj       : 1
Acq. Instrument: GC6                       Inj Volume: 10 µl
Acq. Method    : C:\HPCHEM\1\METHODS\DCSEPHB.M
Last changed   : 9/11/2008 11:04:07 AM by EAW
Analysis Method: C:\HPCHEM\1\METHODS\EPHTK R.M
Last changed   : 9/22/2008 10:52:03 AM by EAW
                (modified after loading)
    
```

SW
092308



Area Percent Report

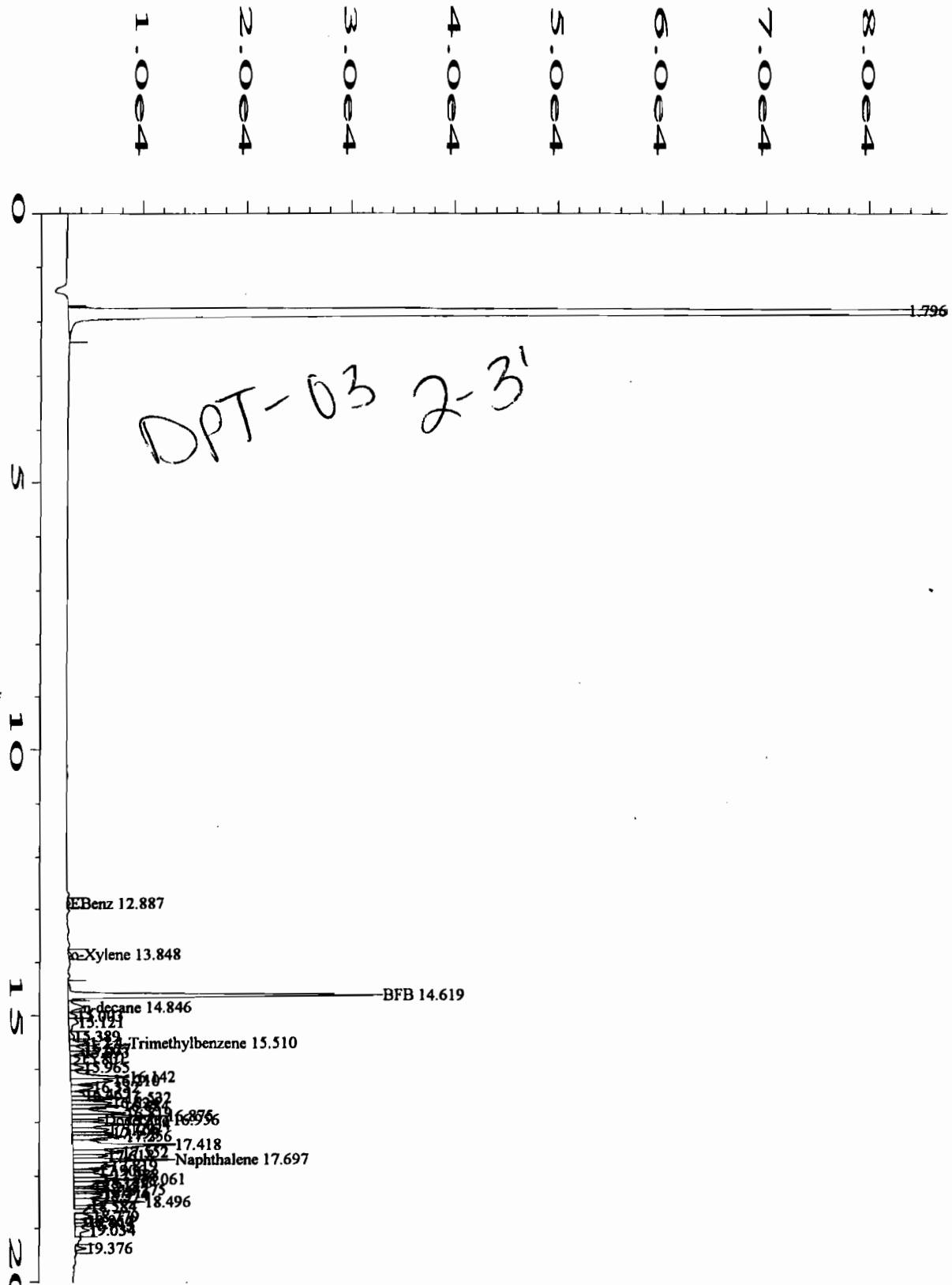
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Sorted By      : Signal
Calib. Data Modified : 9/22/2008 10:52:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

RORO

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.157	VP	0.0647	6.44334	3.637e-5	nonane
2	3.981	VV	0.0536	40.72491	0.00023	decane
3	5.682	VV	0.0445	36.24665	0.00020	dodecane
4	7.214	VV	0.0529	34.61452	0.00020	2-BrN(frac)
5	7.666	VV	0.0331	61.90158	0.00035	2-FB(frac2)
6	8.144	VV	0.0402	28.89417	0.00016	tetradecane
7	8.211	VV	0.0409	36.46634	0.00021	hexadecane
8	9.504	VV	0.0394	30.67464	0.00017	octadecane
9	9.558	VV	0.0381	29.71417	0.00017	nonadecane
10	9.721	MM T	0.0301	2536.83008	0.01432	OTP
11	10.130	VV	0.0426	90.61702	0.00051	eicosane
12	10.828	VV	0.0410	104.08739	0.00059	heneicosane

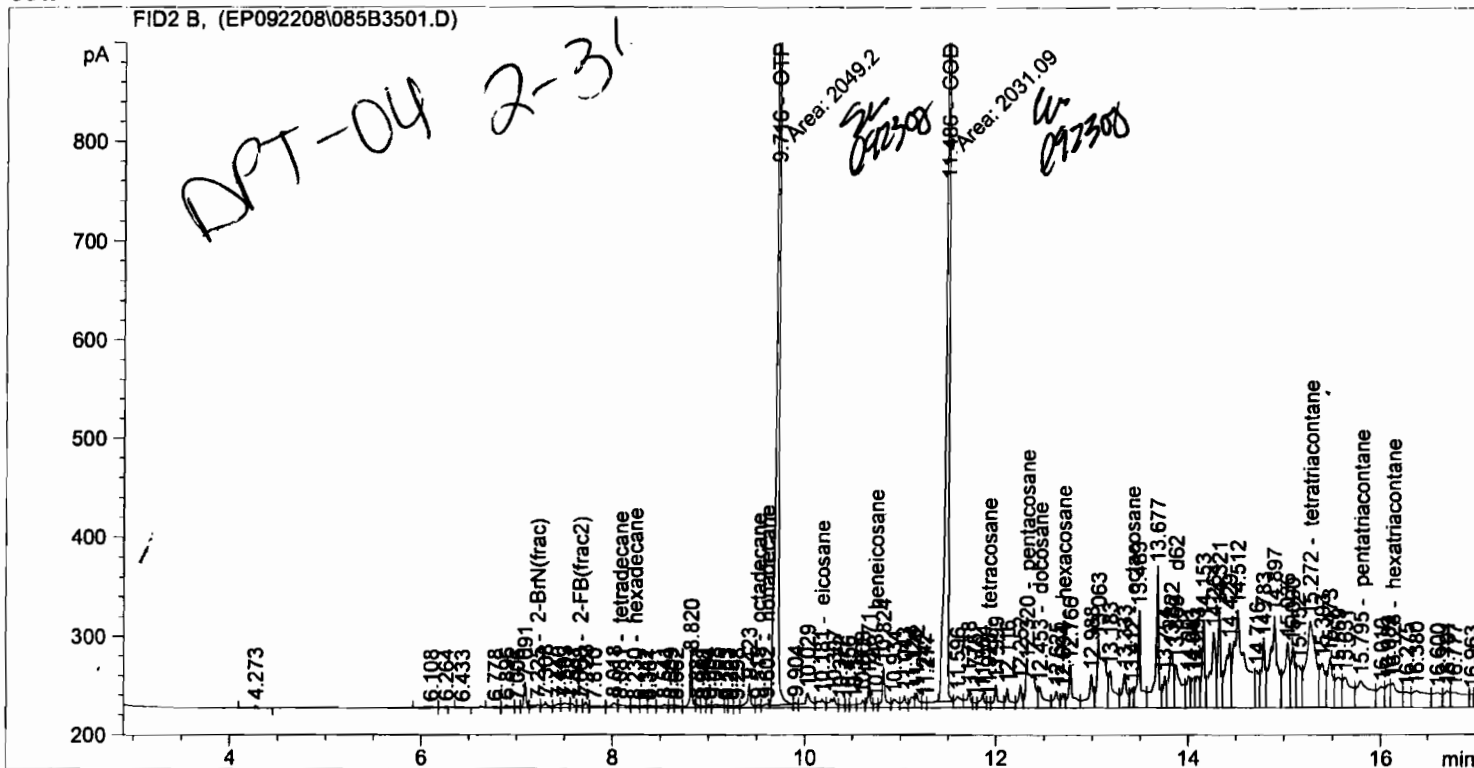


Data File Name	: C:\HPCHEM\1\DATA\vp092308\014F0101.D	Page Number	: 1
Operator	: DVG	Vial Number	: 14
Instrument	: GC4	Injection Number	: 1
Sample Name	: g128-2246-2a x1	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	GAS2.MTH
Acquired on	: 23 Sep 08 02:09 PM	Analysis Method	: VPH_FIDG.MTH
Report Created on	: 24 Sep 08 08:01 AM	Sample Amount	: 0
Last Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
Multiplier	: 1		

Injection Date : 9/23/2008 2:10:59 AM Seq. Line : 35
 Sample Name : G128-2246-3D x1 Location : Vial 85
 Acq. Operator : EAW Inj : 1
 Acq. Instrument : GC6 Inj Volume : 10 µl
 Acq. Method : C:\HPCHEM\1\METHODS\DCSEPHB.M
 Last changed : 9/11/2008 11:04:07 AM by EAW
 Analysis Method : C:\HPCHEM\1\METHODS\EPHTK R.M
 Last changed : 9/22/2008 10:52:03 AM by EAW
 (modified after loading)

SM
092308

TPH



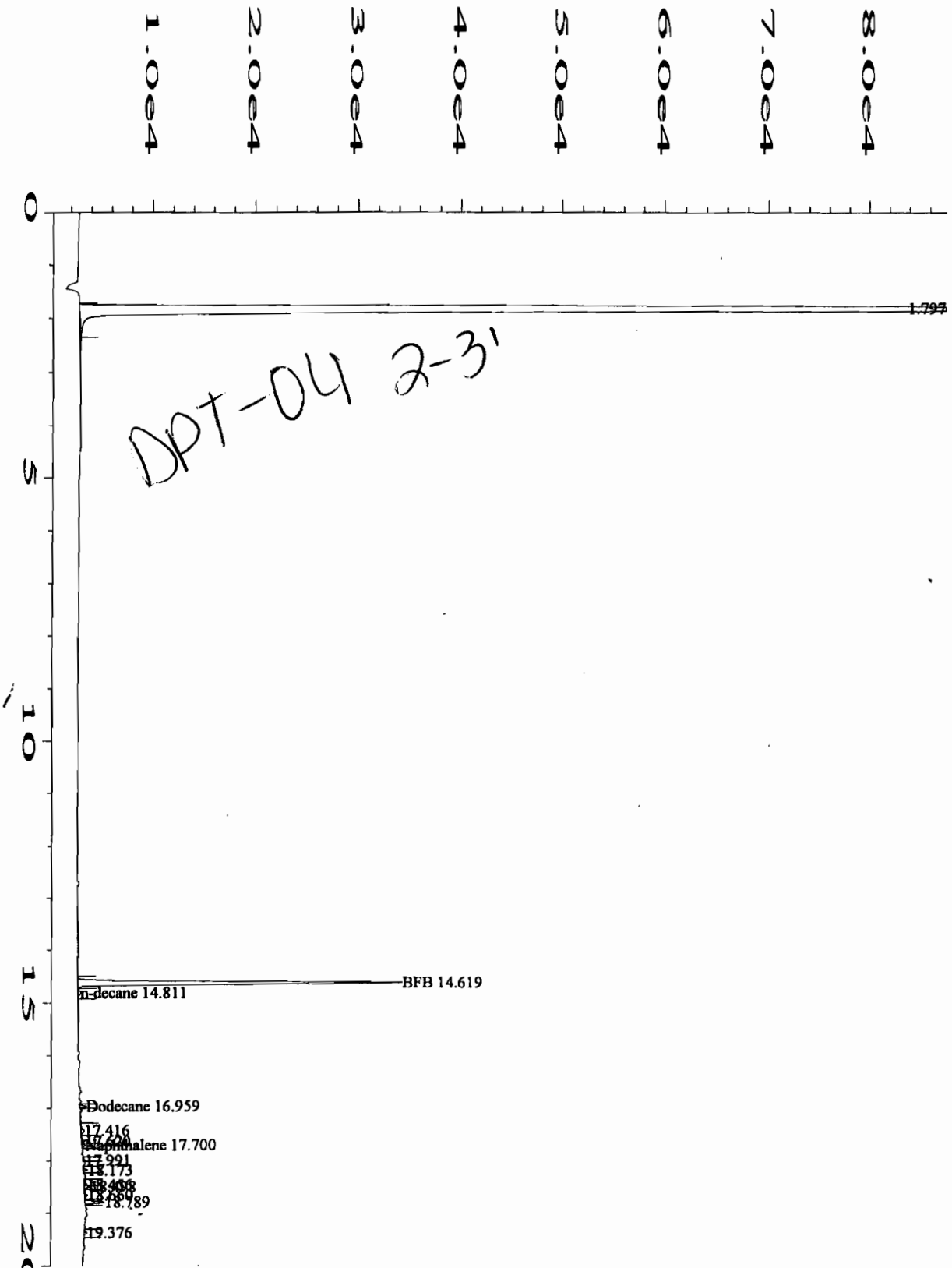
Area Percent Report

Sorted By : Signal
 Calib. Data Modified : 9/22/2008 10:52:08 AM
 Multiplier : 1.0000
 Dilution : 1.0000
 Use Multiplier & Dilution Factor with ISTDs

RORO

Signal 1: FID2 B,

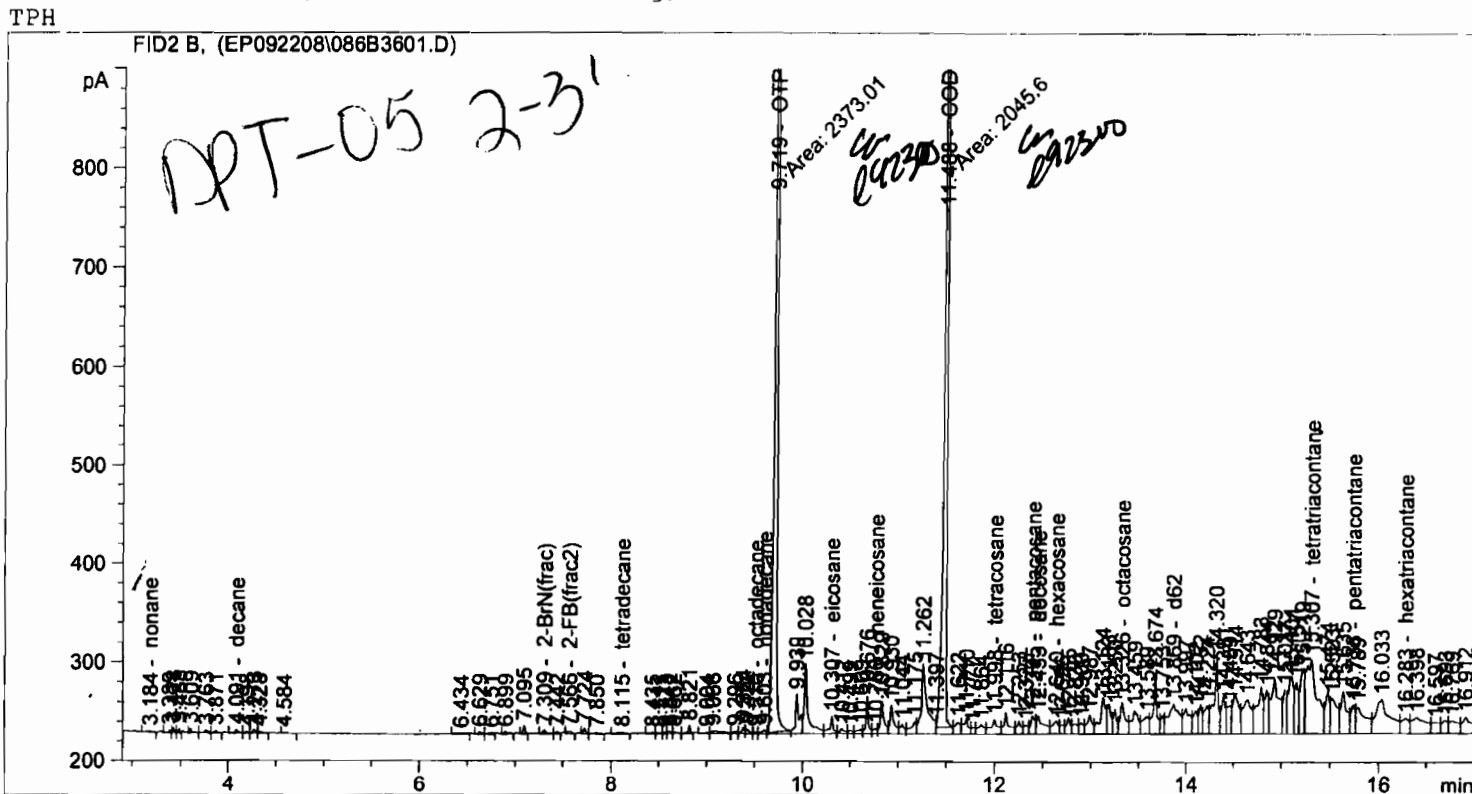
Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.225	VV	0.0676	16.24418	9.357e-5	2-BrN(frac)
5	7.668	VV	0.0400	8.40702	4.842e-5	2-FB(frac2)
6	8.081	VV	0.0731	16.22305	9.344e-5	tetradecane
7	8.230	VV	0.0637	9.90636	5.706e-5	hexadecane
8	9.515	VV	0.0405	9.07238	5.226e-5	octadecane
9	9.602	VV R	0.1963	58.46260	0.00034	nonadecane
10	9.716	MM T	0.0253	2049.19922	0.01180	OTF
11	10.181	VV	0.0609	42.50430	0.00024	eicosane
12	10.743	VV	0.0412	12.20775	7.032e-5	heneicosane



Data File Name	: C:\HPCHEM\1\DATA\vp092308\015F0101.D	Page Number	: 1
Operator	: DVG	Vial Number	: 15
Instrument	: GC4	Injection Number	: 1
Sample Name	: g128-2246-3a x1	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	GAS2.MTH
Acquired on	: 23 Sep 08 02:35 PM	Analysis Method	: VPH_FIDG.MTH
Report Created on	: 24 Sep 08 08:01 AM	Sample Amount	: 0
Last Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
Multiplier	: 1		

Injection Date : 9/23/2008 2:39:24 AM Seq. Line : 36
 Sample Name : G128-2246-4D x1 Location : Vial 86
 Acq. Operator : EAW Inj : 1
 Acq. Instrument : GC6 Inj Volume : 10 µl
 Acq. Method : C:\HPCHEM\1\METHODS\DCSEPHB.M
 Last changed : 9/11/2008 11:04:07 AM by EAW
 Analysis Method : C:\HPCHEM\1\METHODS\EPHTK R.M
 Last changed : 9/22/2008 10:52:03 AM by EAW
 (modified after loading)

EW
092308



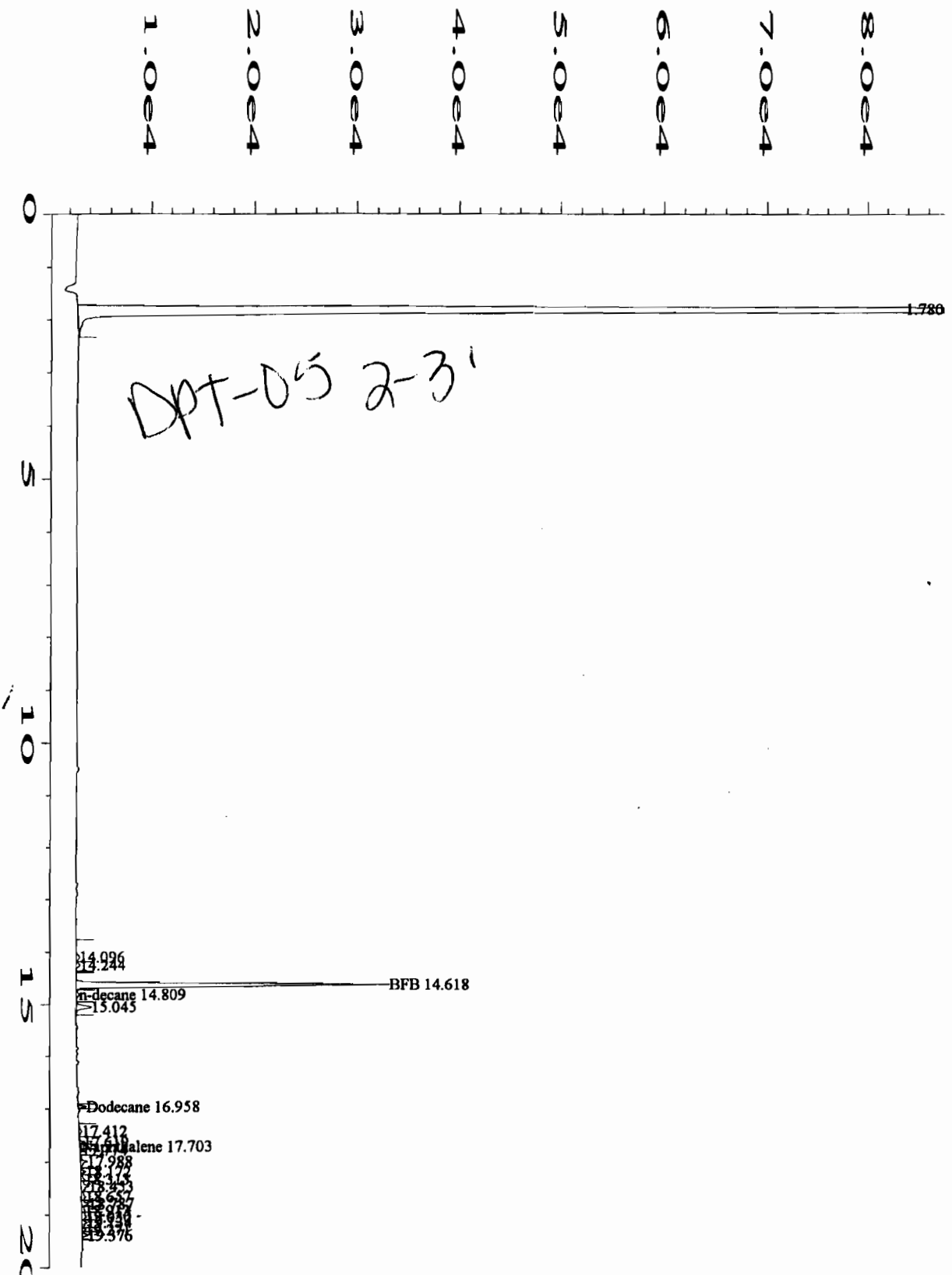
Area Percent Report

Sorted By : Signal
 Calib. Data Modified : 9/22/2008 10:52:08 AM
 Multiplier : 1.0000
 Dilution : 1.0000
 Use Multiplier & Dilution Factor with ISTDs

RORO

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.184	VP	0.0666	5.75742	3.281e-5	nonane
2	4.091	VV	0.0426	11.61613	6.621e-5	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.309	VV	0.0402	12.05381	6.870e-5	2-BrN(frac)
5	7.566	VV	0.0581	9.60871	5.476e-5	2-FB(frac2)
6	8.115	VV	0.0863	11.70020	6.668e-5	tetradecane
7	8.223		0.0000	0.00000	0.00000	hexadecane
8	9.510	VV	0.0316	4.97785	2.837e-5	octadecane
9	9.603	VV	0.0427	12.41046	7.073e-5	nonadecane
10	9.719	MM T	0.0258	2373.00635	0.01352	OTP
11	10.307	VV	0.0384	46.93730	0.00027	eicosane
12	10.766	VV	0.0442	17.00683	9.693e-5	heneicosane

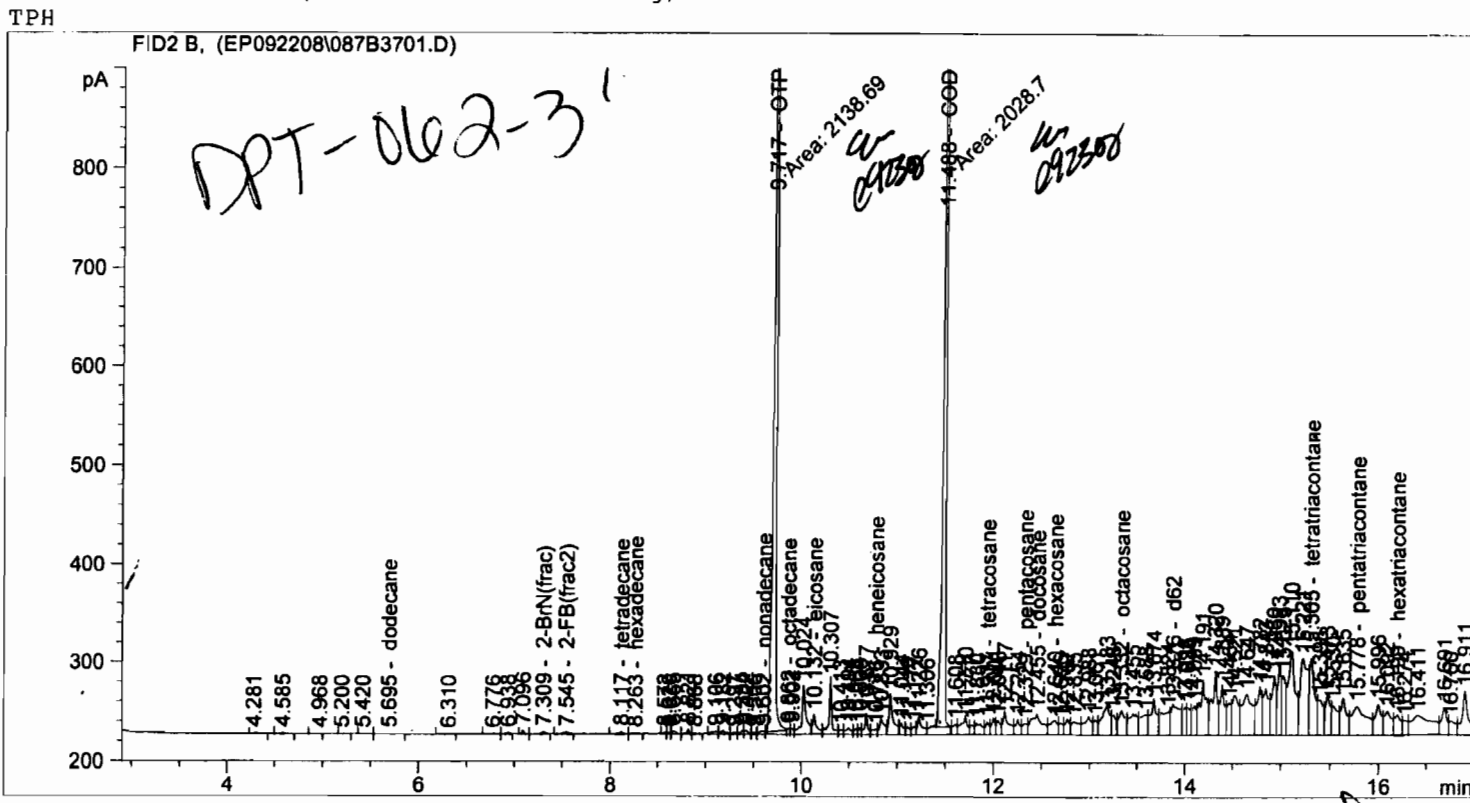


Data File Name	: C:\HPCHEM\1\DATA\vp092308\016F0101.D	Page Number	: 1
Operator	: DVG	Vial Number	: 16
Instrument	: GC4	Injection Number	: 1
Sample Name	: g128-2246-4a x1	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	GAS2.MTH
Acquired on	: 23 Sep 08 03:02 PM	Analysis Method	: VPH_FIDG.MTH
Report Created on:	24 Sep 08 08:01 AM	Sample Amount	: 0
Last Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
Multiplier	: 1		


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Injection Date : 9/23/2008 3:07:56 AM      Seq. Line : 37
Sample Name   : G128-2246-5D x1           Location  : Vial 87
Acq. Operator : EAW                      Inj      : 1
Acq. Instrument : GC6                    Inj Volume: 10 µl
Acq. Method   : C:\HPCHEM\1\METHODS\DCSEPHB.M
Last changed  : 9/11/2008 11:04:07 AM by EAW
Analysis Method : C:\HPCHEM\1\METHODS\EPHTK_R.M
Last changed  : 9/22/2008 10:52:03 AM by EAW
                (modified after loading)
    
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EW
092308



Area Percent Report

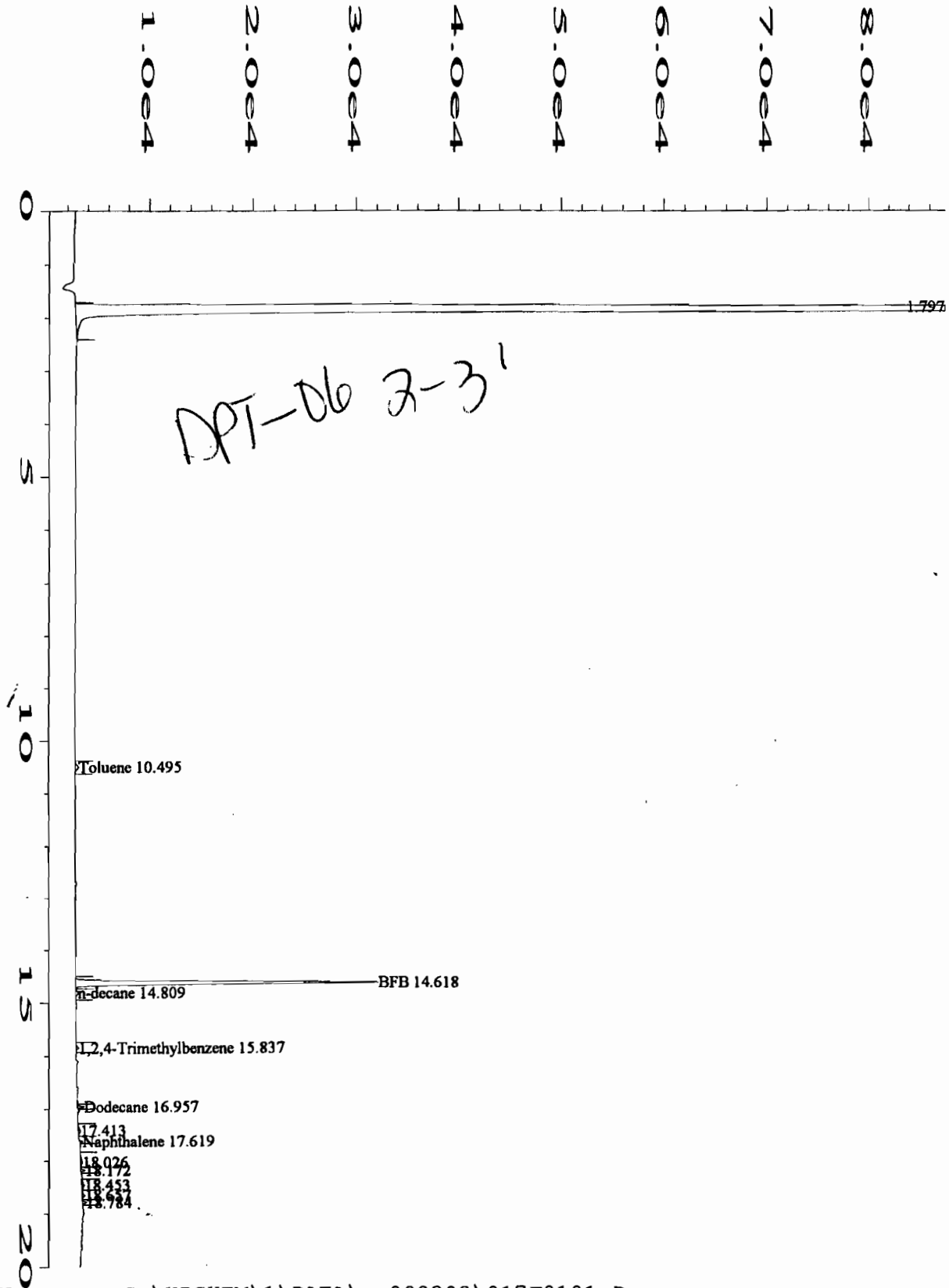
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Sorted By      : Signal
Calib. Data Modified : 9/22/2008 10:52:08 AM
Multiplier     : 1.0000
Dilution      : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

*Residual
Oil
Range
Organics*

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.695	VV	0.1502	7.79424	4.415e-5	dodecane
4	7.309	VV	0.0511	10.37559	5.877e-5	2-BrN(frac)
5	7.545	VV	0.0716	13.49798	7.646e-5	2-FB(frac2)
6	8.117	VV	0.0512	9.95879	5.641e-5	tetradecane
7	8.263	VV	0.0947	9.13849	5.176e-5	hexadecane
8	9.602	VV	0.0546	13.47128	7.631e-5	nonadecane
9	9.717	MM T	0.0279	2138.68774	0.01211	OTP
10	9.862	VV R	0.1350	52.46344	0.00030	octadecane
11	10.132	VV	0.0414	58.44585	0.00033	eicosane
12	10.776	VV	0.0536	20.42519	0.00012	heneicosane

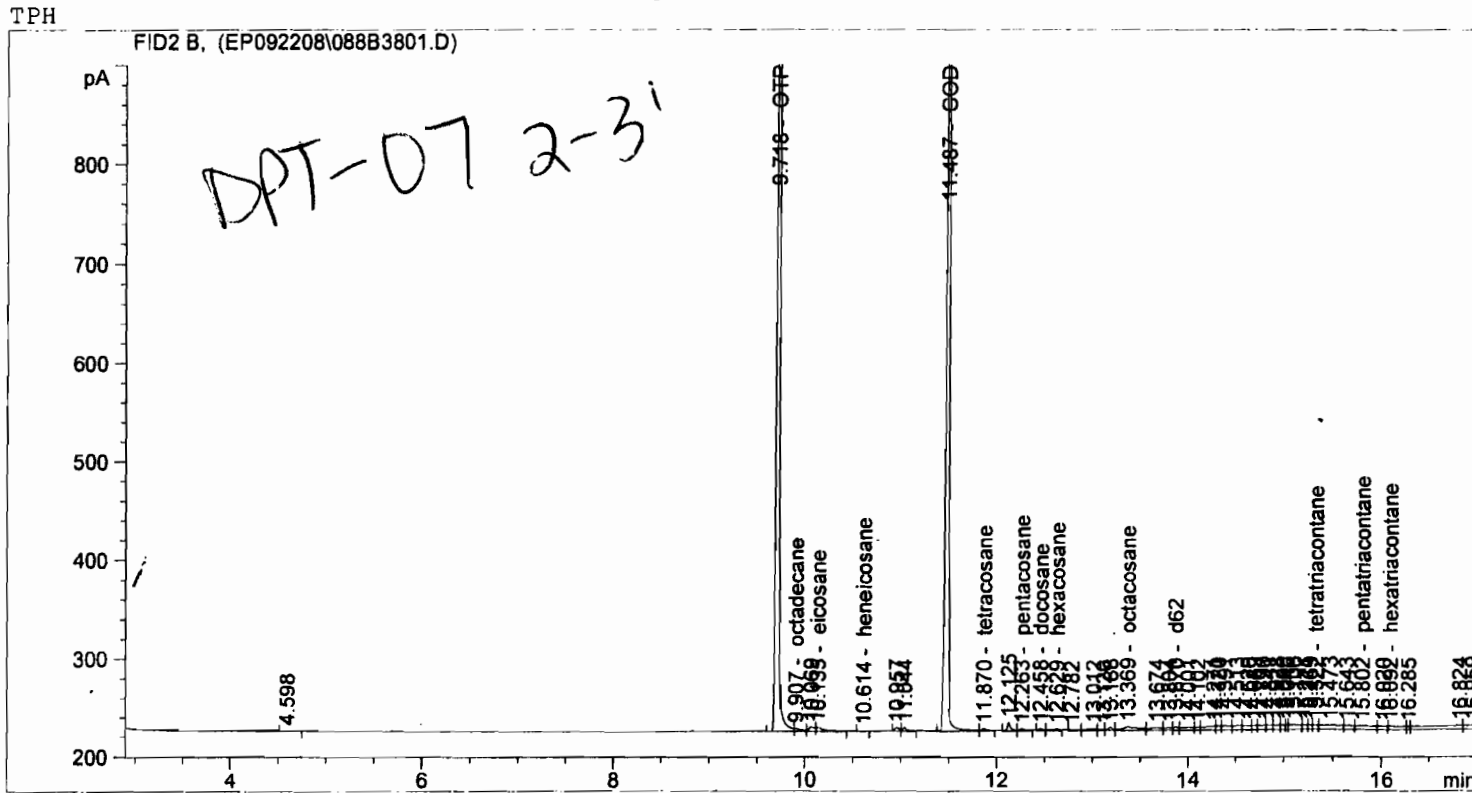


ata File Name	: C:\HPCHEM\1\DATA\vp092308\017F0101.D	Page Number	: 1
perator	: DVG	Vial Number	: 17
nstrument	: GC4	Injection Number	: 1
ample Name	: g128-2246-5a x1	Sequence Line	: 1
in Time Bar Code:		Instrument Method:	GAS2.MTH
quired on	: 23 Sep 08 03:29 PM	Analysis Method	: VPH_FIDG.MTH
port Created on:	24 Sep 08 08:01 AM	Sample Amount	: 0
st Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
ultiplier	: 1		

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Injection Date : 9/23/2008 3:36:25 AM      Seq. Line : 38
Sample Name    : G128-2246-6D x1          Location  : Vial 88
Acq. Operator  : EAW                      Inj       : 1
Acq. Instrument: GC6                     Inj Volume: 10 µl
Acq. Method    : C:\HPCHEM\1\METHODS\DCSEPHB.M
Last changed   : 9/11/2008 11:04:07 AM by EAW
Analysis Method: C:\HPCHEM\1\METHODS\EPHTK R.M
Last changed   : 9/22/2008 10:52:03 AM by EAW
                (modified after loading)
    
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Handwritten:
 G128-2246-6D
 092308



Handwritten:
 DPT-07 2-3ⁱ

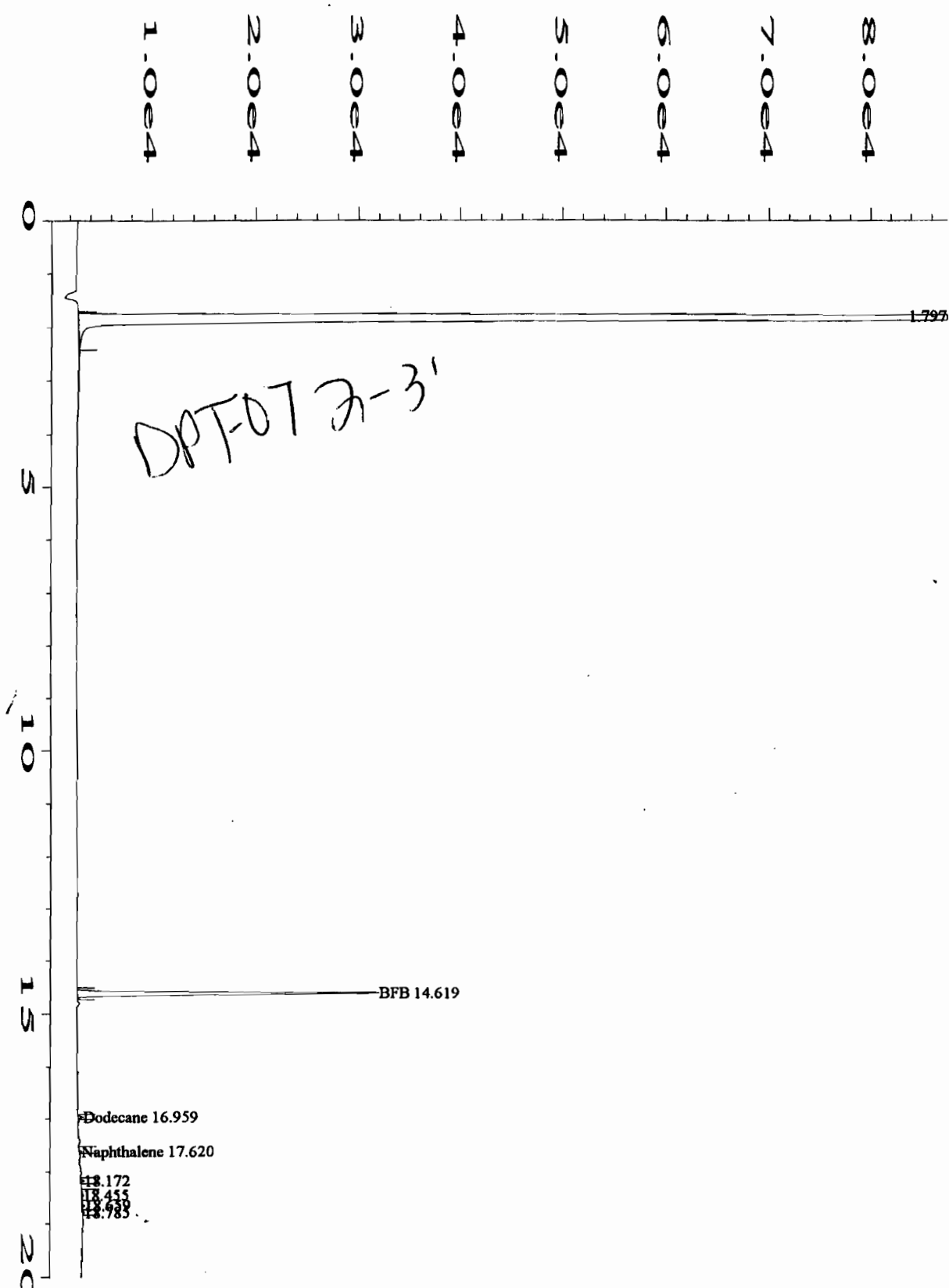
Area Percent Report

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Sorted By      : Signal
Calib. Data Modified : 9/22/2008 10:52:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.247		0.0000	0.00000	0.00000	2-BrN (frac)
5	7.631		0.0000	0.00000	0.00000	2-FB (frac2)
6	8.195		0.0000	0.00000	0.00000	tetradecane
7	8.223		0.0000	0.00000	0.00000	hexadecane
8	9.697		0.0000	0.00000	0.00000	nonadecane
9	9.718	VV	0.0289	2711.44775	0.01543	OTP
10	9.907	VV	0.0603	15.11985	8.604e-5	octadecane
11	10.135	VV	0.0861	25.90670	0.00015	eicosane
12	10.614	VV	0.0510	4.64833	2.645e-5	heneicosane

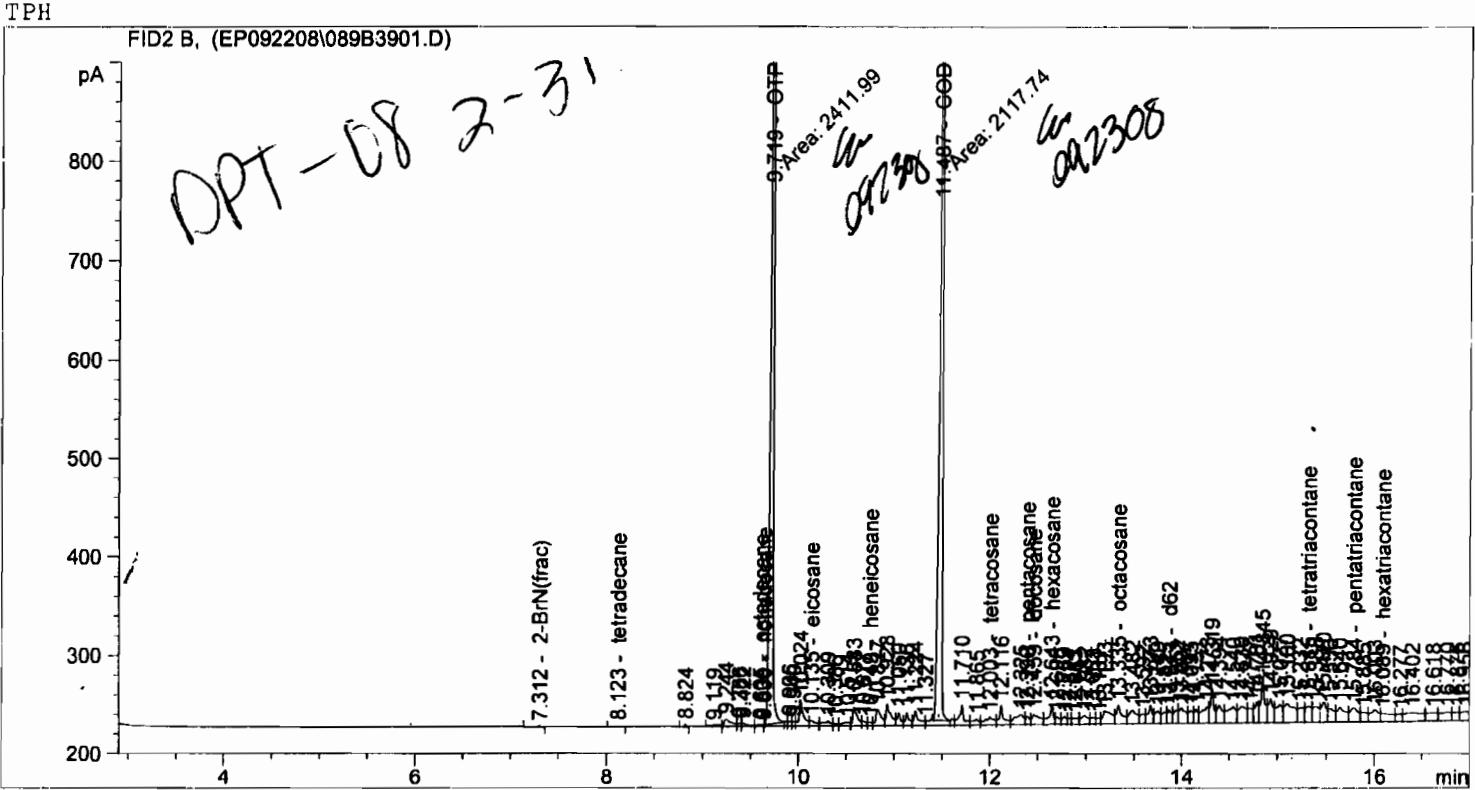


ata File Name : C:\HPCHEM\1\DATA\vp092308\018F0101.D
 perator : DVG Page Number : 1
 nstrument : GC4 Vial Number : 18
 ample Name : g128-2246-6a x1 Injection Number : 1
 un Time Bar Code: Sequence Line : 1
 cquired on : 23 Sep 08 03:56 PM Instrument Method: GAS2.MTH
 eport Created on: 24 Sep 08 08:02 AM Analysis Method : VPH_FIDG.MTH
 ast Recalib on : 22 SEP 08 08:26 AM Sample Amount : 0
 ultiplier : 1 ISTD Amount :

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Injection Date : 9/23/2008 4:04:28 AM      Seq. Line : 39
Sample Name    : G128-2246-7D x1          Location  : Vial 89
Acq. Operator  : EAW                      Inj       : 1
Acq. Instrument: GC6                     Inj Volume: 10 µl
Acq. Method    : C:\HPCHEM\1\METHODS\DCSEPHB.M
Last changed   : 9/11/2008 11:04:07 AM by EAW
Analysis Method: C:\HPCHEM\1\METHODS\EPHTK R.M
Last changed   : 9/22/2008 10:52:03 AM by EAW
                (modified after loading)
    
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WV
092308



Area Percent Report

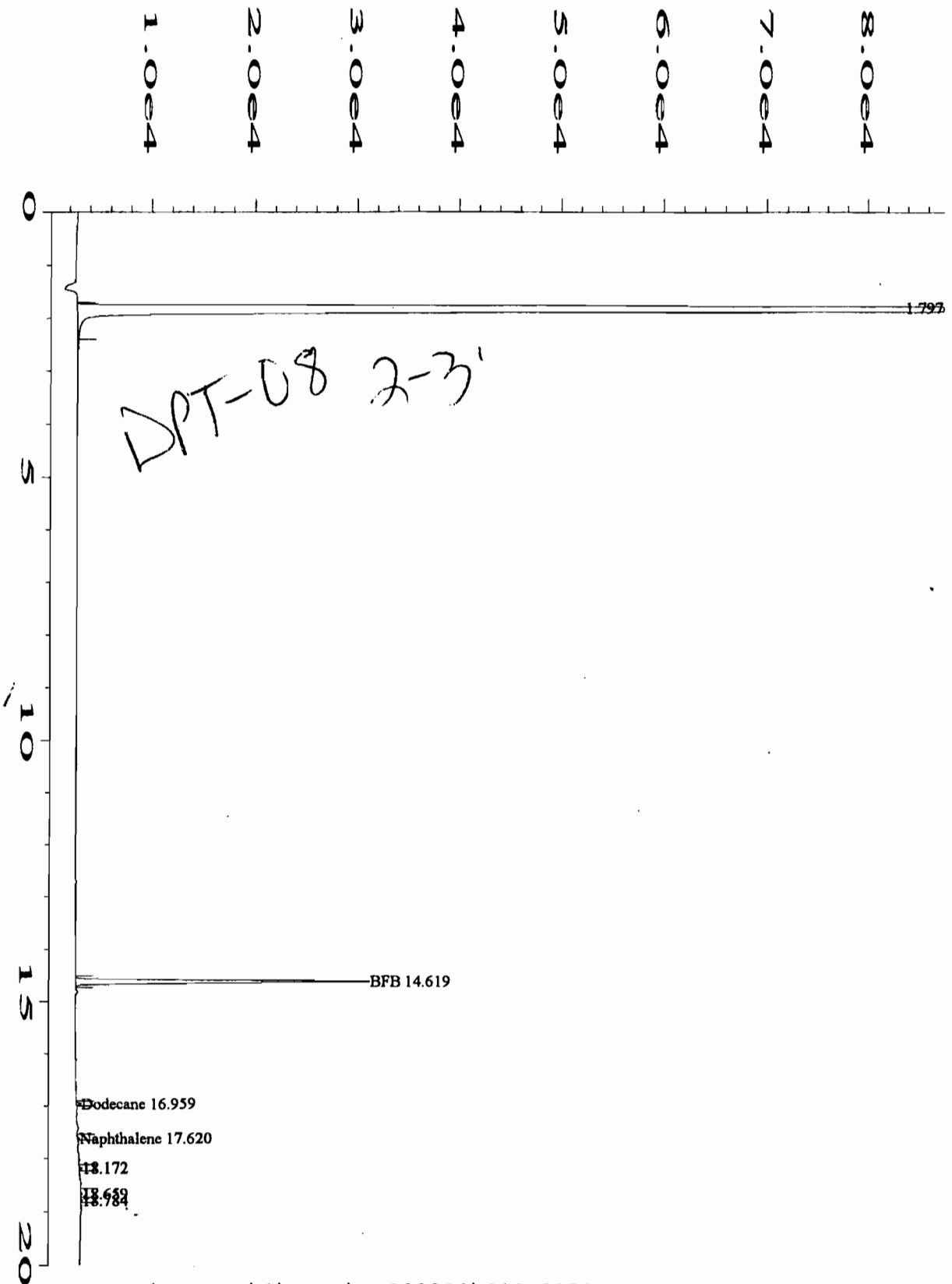
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Sorted By      : Signal
Calib. Data Modified : 9/22/2008 10:52:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
    
```

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.312	VV	0.0578	4.57148	2.671e-5	2-BrN(frac)
5	7.631		0.0000	0.00000	0.00000	2-FB(frac2)
6	8.123	VV	0.0613	5.94110	3.471e-5	tetradecane
7	8.223		0.0000	0.00000	0.00000	hexadecane
8	9.605	VV	0.0606	7.55047	4.412e-5	octadecane
9	9.636	VV R	4.58e-4	40.55233	0.00024	nonadecane
10	9.719	MM T	0.0273	2411.98657	0.01409	OTP
11	10.135	VV	0.0602	23.77775	0.00014	eicosane
12	10.749	VV	0.0406	11.77647	6.881e-5	heneicosane

Residual Oil Range Organics



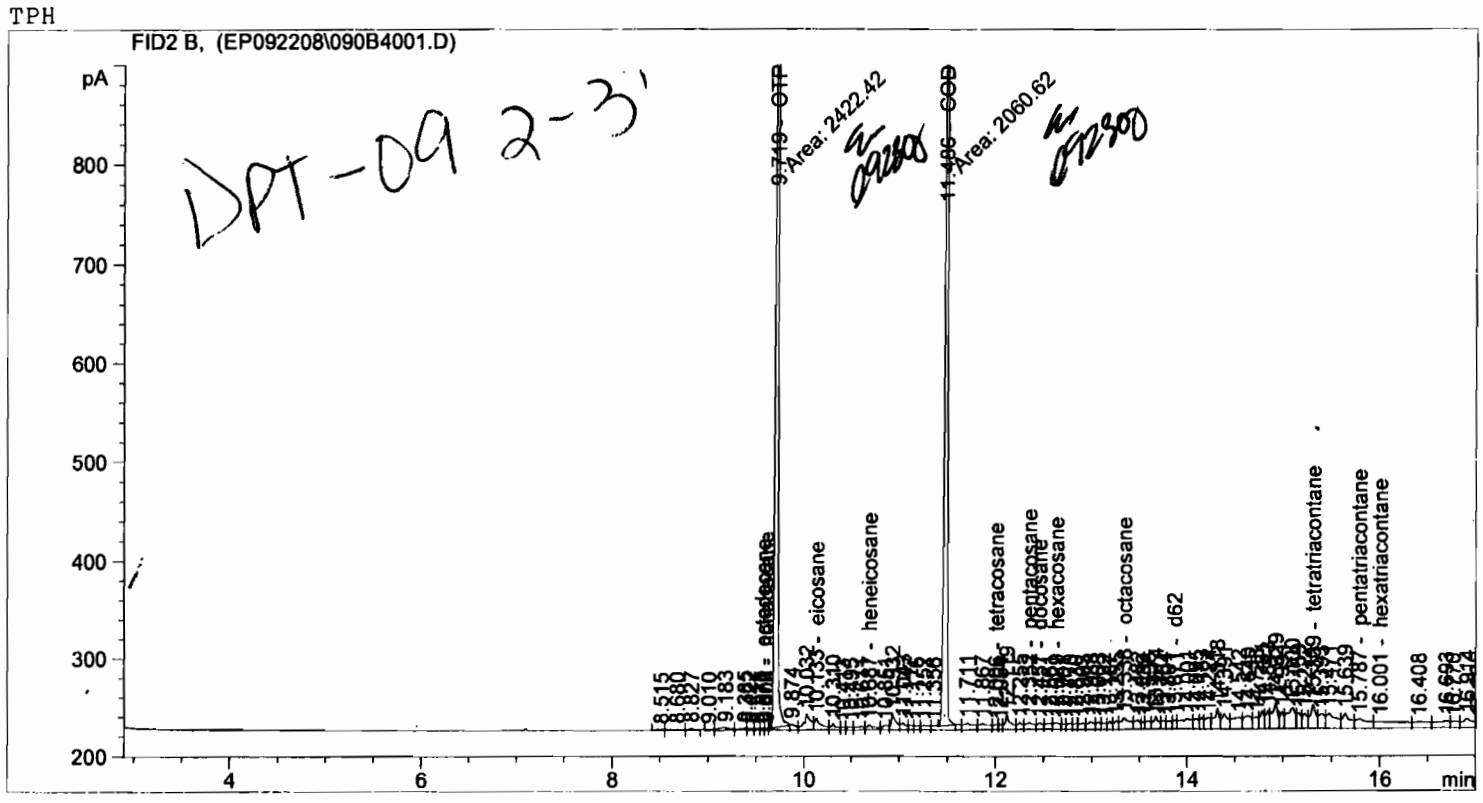
Data File Name	: C:\HPCHEM\1\DATA\vp092308\019F0101.D	Page Number	: 1
Operator	: DVG	Vial Number	: 19
Instrument	: GC4	Injection Number	: 1
Sample Name	: g128-2246-7a x1	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	GAS2.MTH
Acquired on	: 23 Sep 08 04:23 PM	Analysis Method	: VPH_FIDG.MTH
Report Created on:	24 Sep 08 08:02 AM	Sample Amount	: 0
Last Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
Multiplier	: 1		

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Injection Date : 9/23/2008 4:32:42 AM      Seq. Line : 40
Sample Name    : G128-2246-8D x1          Location  : Vial 90
Acq. Operator  : EAW                      Inj       : 1
Acq. Instrument: GC6                      Inj Volume: 10 µl
Acq. Method    : C:\HPCHEM\1\METHODS\DCSEPHB.M
Last changed   : 9/11/2008 11:04:07 AM by EAW
Analysis Method: C:\HPCHEM\1\METHODS\EPHTK R.M
Last changed   : 9/22/2008 10:52:03 AM by EAW
                (modified after loading)
=====

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EW
092308



Area Percent Report

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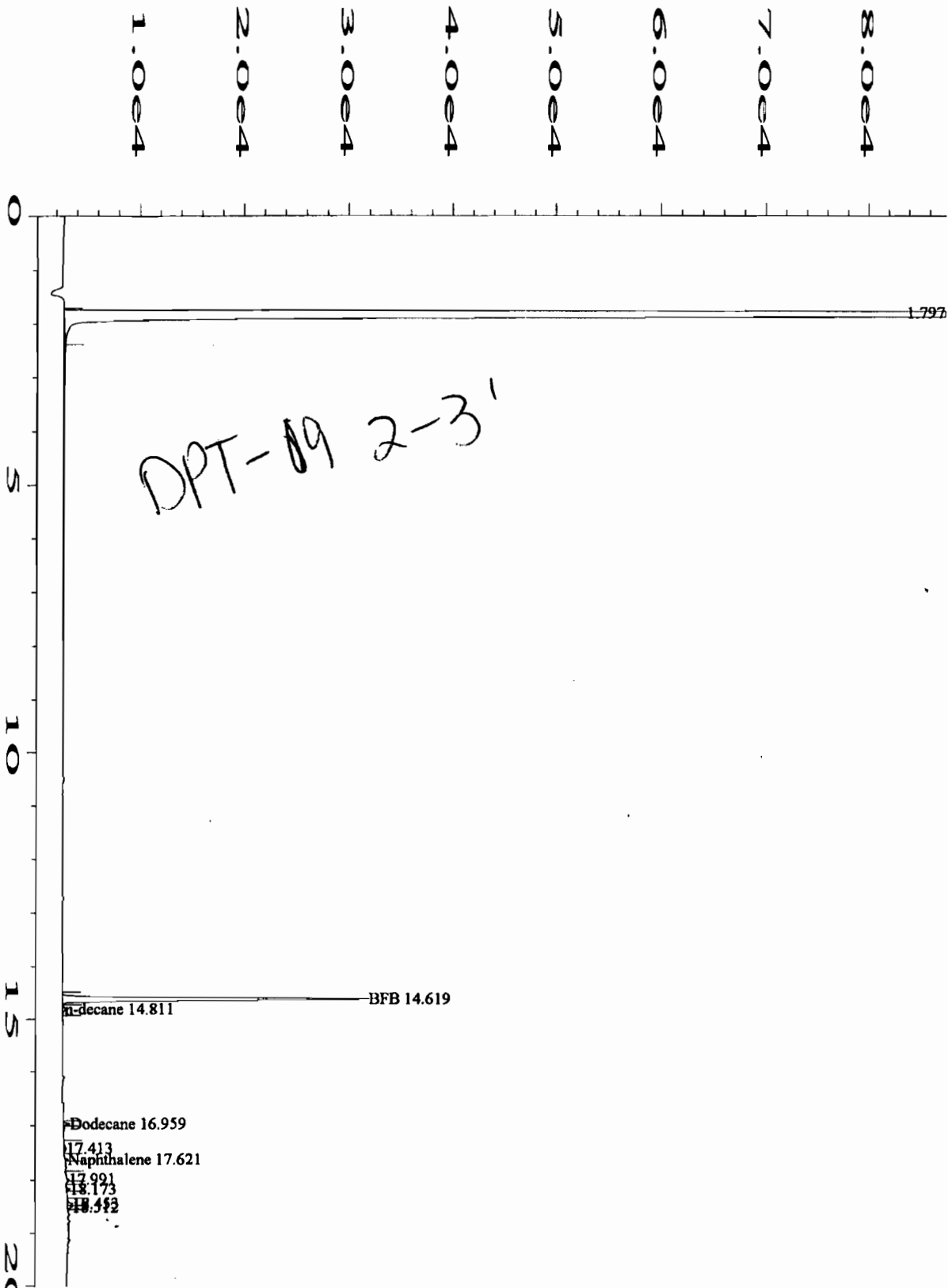
Sorted By      : Signal
Calib. Data Modified : 9/22/2008 10:52:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.247		0.0000	0.00000	0.00000	2-BrN(frac)
5	7.631		0.0000	0.00000	0.00000	2-FB(frac2)
6	8.195		0.0000	0.00000	0.00000	tetradecane
7	8.223		0.0000	0.00000	0.00000	hexadecane
8	9.570	VV	0.0343	4.72563	2.728e-5	octadecane
9	9.608	VV	0.0352	4.83605	2.792e-5	nonadecane
10	9.719	MM T	0.0261	2422.42212	0.01399	OTP
11	10.133	VV	0.0645	57.81527	0.00033	eicosane
12	10.687	VV	0.0752	29.63024	0.00017	heneicosane

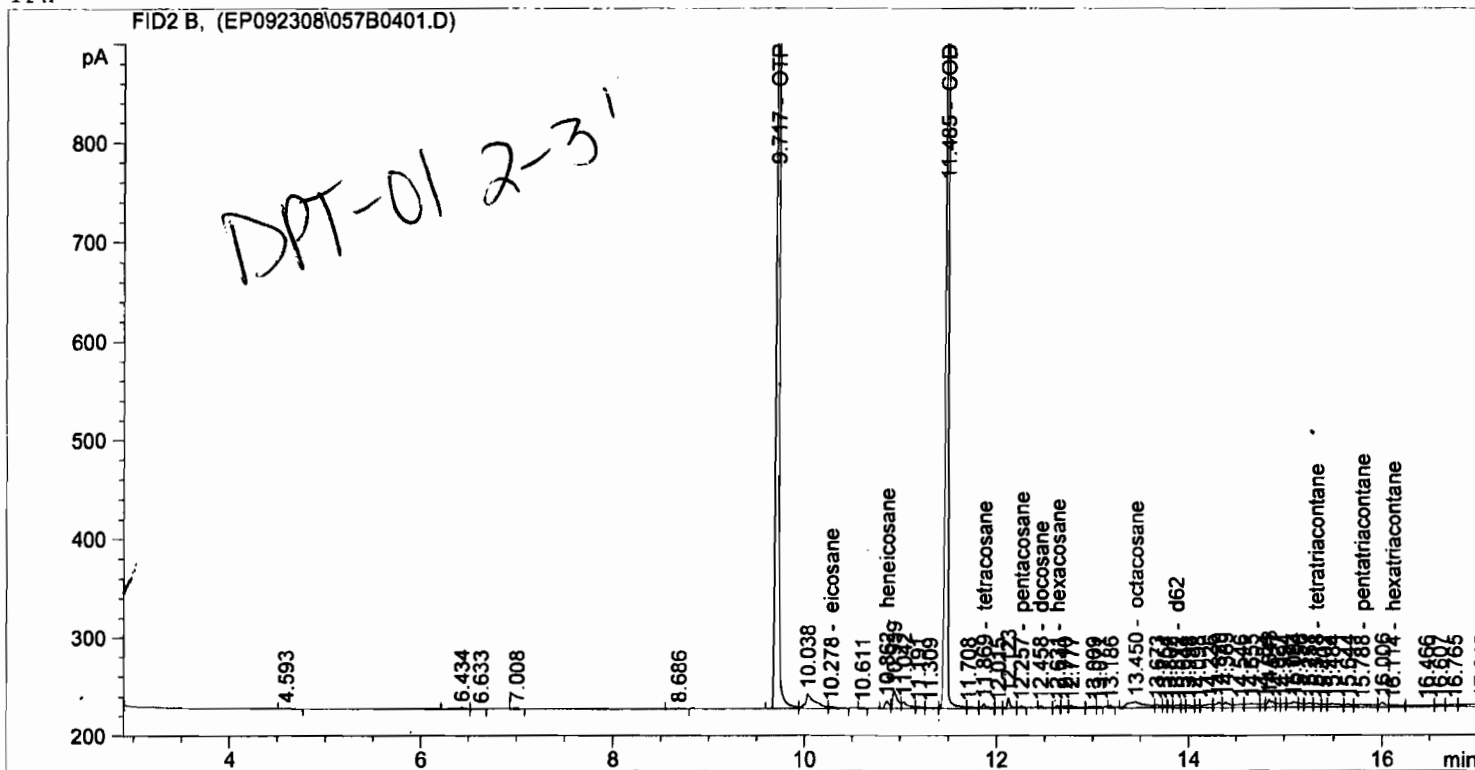
none



Data File Name	: C:\HPCHEM\1\DATA\vp092308\020F0101.D	Page Number	: 1
Operator	: DVG	Vial Number	: 20
Instrument	: GC4	Injection Number	: 1
Sample Name	: g128-2246-8a x1	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	GAS2.MTH
Acquired on	: 23 Sep 08 04:49 PM	Analysis Method	: VPH_FIDG.MTH
Report Created on:	24 Sep 08 08:02 AM	Sample Amount	: 0
Last Recalib on	: 22 SEP 08 08:26 AM	ISTD Amount	:
Multiplier	: 1		

Injection Date : 9/23/2008 12:54:05 PM Seq. Line : 4
 Sample Name : G128-2247-11D x1 Location : Vial 57
 Acq. Operator : EAW Inj : 1
 Acq. Instrument : GC6 Inj Volume : 10 µl
 Acq. Method : C:\HPCHEM\1\METHODS\DCSEPHB.M
 Last changed : 9/11/2008 11:04:07 AM by EAW
 Analysis Method : C:\HPCHEM\1\METHODS\EPHTK_R.M
 Last changed : 9/23/2008 3:50:09 PM by EAW
 TPH

Handwritten: G128-2247-11D



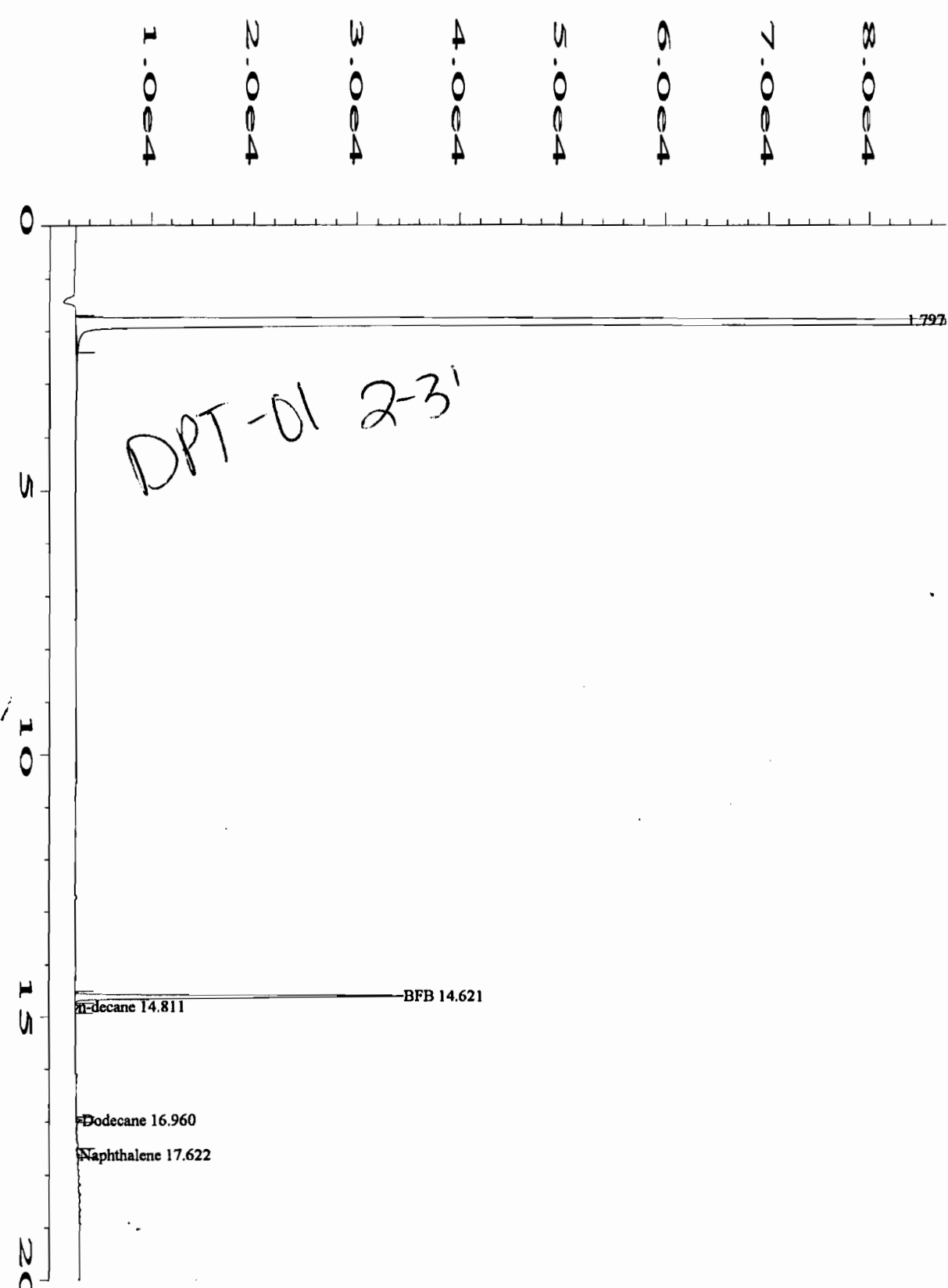
Area Percent Report

Sorted By : Signal
 Calib. Data Modified : 9/22/2008 10:52:08 AM
 Multiplier : 1.0000
 Dilution : 1.0000
 Use Multiplier & Dilution Factor with ISTDs

Handwritten circle with arrow

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.131		0.0000	0.00000	0.00000	nonane
2	4.022		0.0000	0.00000	0.00000	decane
3	5.704		0.0000	0.00000	0.00000	dodecane
4	7.247		0.0000	0.00000	0.00000	2-BrN(frac)
5	7.631		0.0000	0.00000	0.00000	2-FB(frac2)
6	8.195		0.0000	0.00000	0.00000	tetradecane
7	8.223		0.0000	0.00000	0.00000	hexadecane
8	9.697		0.0000	0.00000	0.00000	nonadecane
9	9.700		0.0000	0.00000	0.00000	octadecane
10	9.717	VV	0.0275	2461.28149	0.01411	OTP
11	10.278	VV	0.0912	14.90513	8.545e-5	eicosane
12	10.862	VV	0.0461	22.87553	0.00013	heneicosane
13	11.485	VV	0.0288	2128.79297	0.01220	COD



Data File Name : C:\HPCHEM\1\DATA\vp092508\019F0101.D
 Operator : DVG
 Instrument : GC4
 Sample Name : g128-2247-11a x1
 Run Time Bar Code:
 Acquired on : 25 Sep 08 04:50 PM
 Report Created on: 26 Sep 08 07:59 AM
 Last Recalib on : 24 SEP 08 08:21 AM
 Multiplier : 1

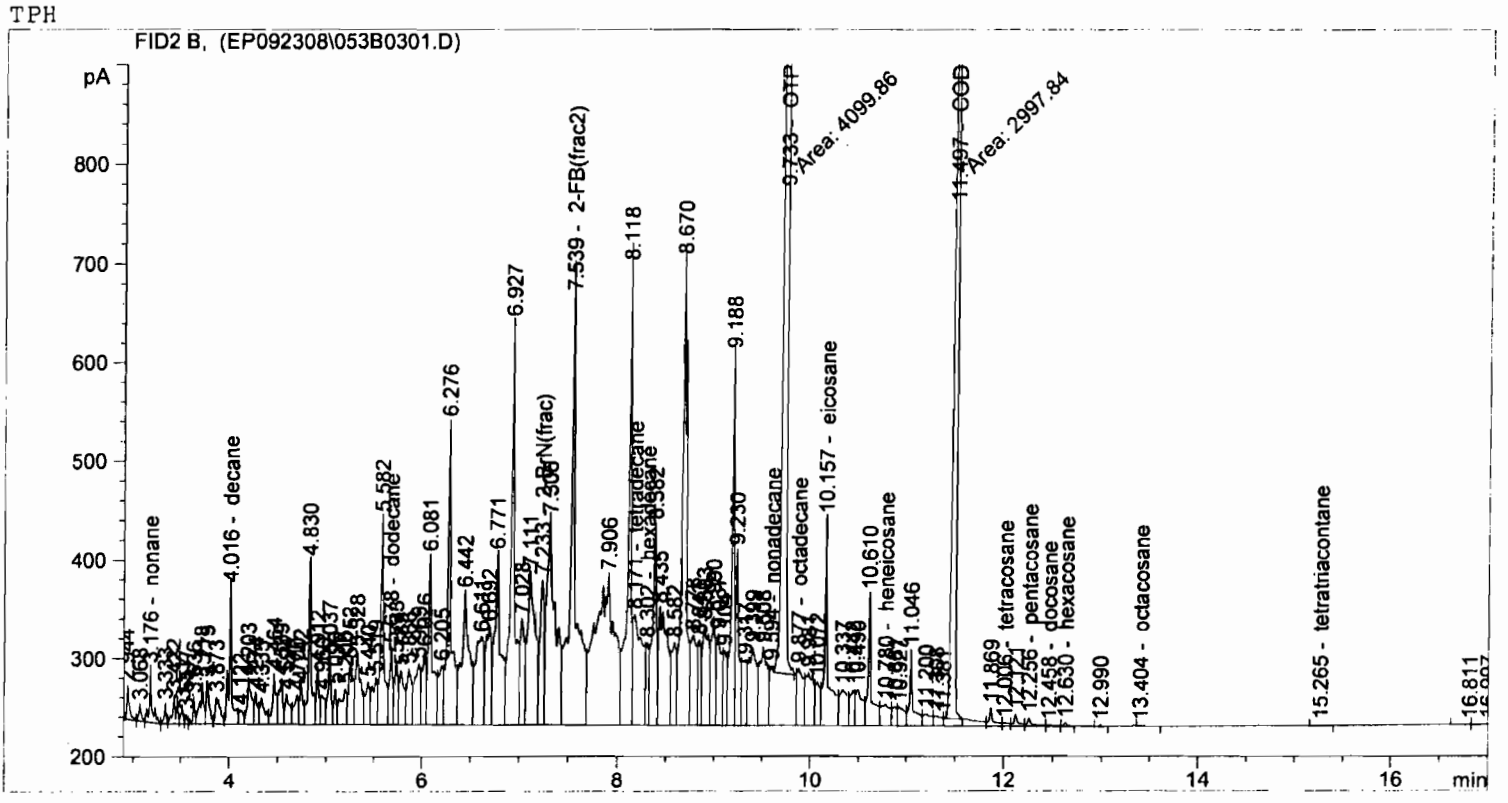
6, 9 acc 100208

Page Number : 1
 Vial Number : 19
 Injection Number : 1
 Sequence Line : 1
 Instrument Method: GAS2.MTH
 Analysis Method : VPH_FIDG.MTH
 Sample Amount : 0
 ISTD Amount :

```

=====
Injection Date : 9/23/2008 10:59:35 AM      Seq. Line : 3
Sample Name    : cvs-D-500 DRD             Location  : Vial 53
Acq. Operator  : EAW                          Inj       : 1
Acq. Instrument: GC6 CHROMATOGRAM         Inj Volume: 10 µl
Acq. Method    : C:\HPCHEM\1\METHODS\DCSEPHB.M
Last changed   : 9/11/2008 11:04:07 AM by EAW
Analysis Method: C:\HPCHEM\1\METHODS\EPHTK_R.M
Last changed   : 9/22/2008 10:52:03 AM by EAW
                (modified after loading)
=====

```



=====
Area Percent Report
=====

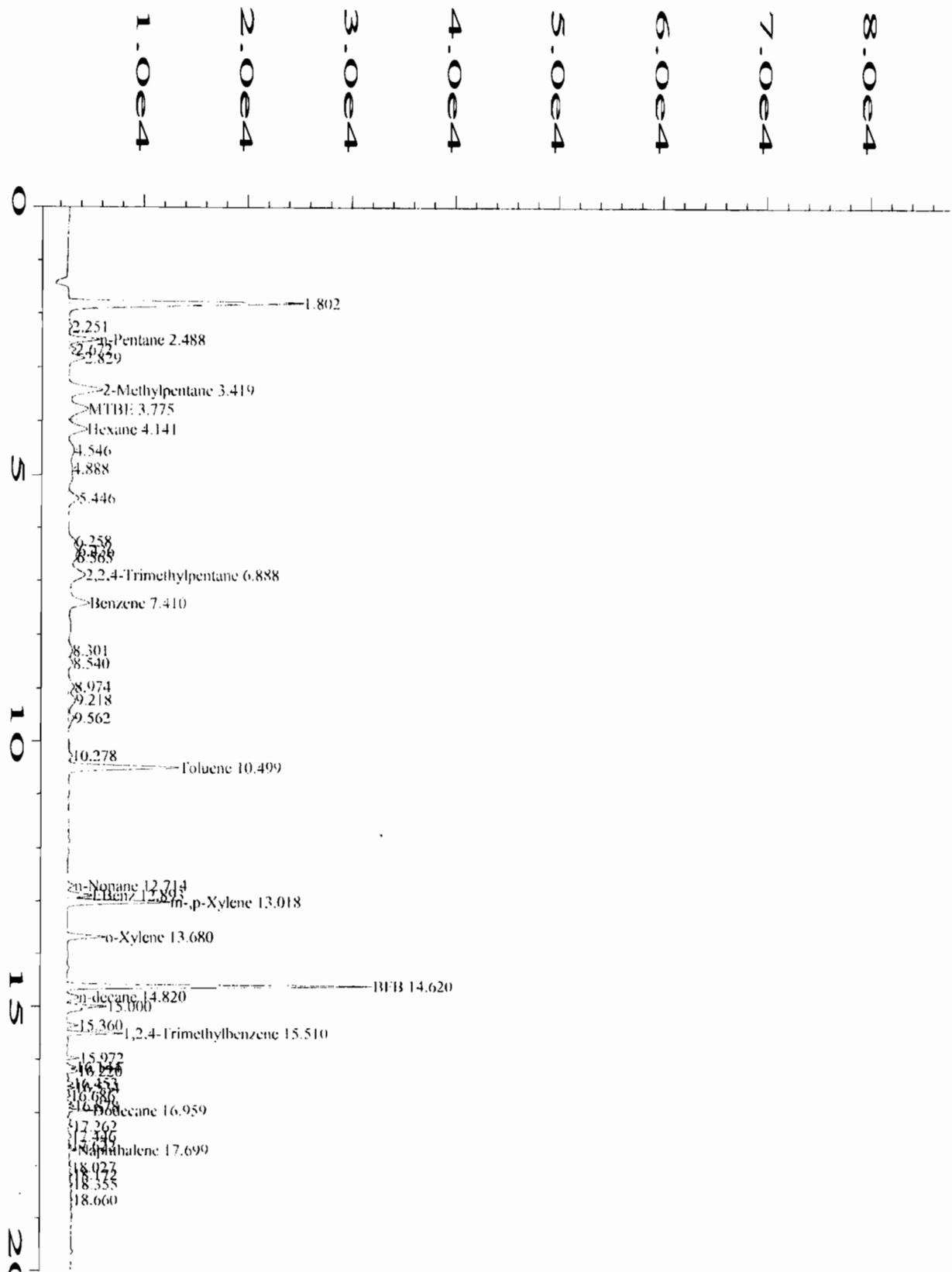
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Sorted By      : Signal
Calib. Data Modified : 9/22/2008 10:52:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID2 B,

Peak #	RetTime [min]	Type	Width [min]	Area [pA*s]	Area %	Name
1	3.176	VP	0.0313	119.47682	0.00062	nonane
2	4.016	VV	0.0306	293.48834	0.00151	decane
3	5.678	VV	0.0341	186.65717	0.00096	dodecane
4	7.233	VV	0.0429	440.60608	0.00227	2-BrN(frac)
5	7.539	VV	0.0577	1930.78223	0.00996	2-FB(frac2)
6	8.171	VV	0.0872	745.24725	0.00384	tetradecane
7	8.302	VV	0.0313	182.32376	0.00094	hexadecane
8	9.594	VV R	0.2105	917.51117	0.00473	nonadecane
9	9.733	MM T	0.0351	4099.85986	0.02115	OTP
10	9.877	VV	0.0584	262.39691	0.00135	octadecane
11	10.157	VV	0.0409	629.24084	0.00325	eicosane
12	10.780	VV	0.0969	146.00935	0.00075	heneicosane



Data File Name : C:\HPCHEM\1\DATA\VP092308\004F0101.D
 Operator : DVG
 Instrument : GC4 **CRO STANDARD**
 Sample Name : g200
 Run Time Bar Code:
 Acquired on : 23 Sep 08 09:43 AM
 Report Created on: 02 Oct 08 10:28 AM
 Last Recalib on : 26 SEP 08 09:09 AM
 Multiplier : 1

Page Number : 1
 Vial Number : 4
 Injection Number : 1
 Sequence Line : 1
 Instrument Method: GAS2.MTH
 Analysis Method : VPH_FIDB.MTH
 Sample Amount : 0
 ISTD Amount :



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1 CLIENT: <u>DOT</u> CONTACT: <u>RICK GARRETT</u> PHONE NO.: () PROJECT: <u>NEWTON</u> SITE/PWSID#: REPORTS TO: <u>RICK GARRETT</u> E-MAIL: <u>CRUM</u> FAX NO.: () INVOICE TO: <u>DOT</u> QUOTE # <u>WBS 35008.1.1</u>					SGS Reference: <u>6128-2246</u> PAGE <u>1</u> OF <u>1</u>														
2 LAB NO.	SAMPLE IDENTIFICATION		DATE	TIME	MATRIX	No CONTAINERS SAMPLE TYPE C= COMP G= GRAB	Preservatives Used	Analysis Required						REMARKS					
	<u>DPT-02 / 1.5-2.5</u>		<u>9-18-08</u>	<u>1415</u>	<u>SOIL</u>		<u>3</u>	<u>TPH-DRD</u>	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-DRD</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH-GRD</div> </div>										
	<u>DPT-03 / 2-3'</u>			<u>1445</u>															
	<u>DPT-04 / 2-3'</u>			<u>1515</u>															
	<u>DPT-05 / 2-3'</u>			<u>1530</u>															
	<u>DPT-06 / 2-3'</u>			<u>1330</u>															
	<u>DPT-07 / 2-3'</u>			<u>1345</u>															
	<u>DPT-08 / 2-3'</u>			<u>1415</u>															
	<u>DPT-09 / 2-3'</u>			<u>1400</u>															
	<u>6128-2247-11</u>	<u>DPT-01 / 2-3'</u>		<u>1430</u>												<u>Mislabeled Sunaco DPT-11 2-3 (6128-2247-11)</u>			
3 Collected/Relinquished By: (1) <u>[Signature]</u> Date <u>9-19-08</u> Time <u>1205</u> Received By: <u>[Signature]</u> Date <u>9/19/08</u> Time <u>1205</u>						Shipping Carrier:		Samples Received Cold? (Circle) YES NO											
Relinquished By: (2) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____						Shipping Ticket No:		Temperature (C): <u>4.1°C</u>											
Relinquished By: (3) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____						Special Deliverable Requirements:		Chain of Custody Seal: (Circle) INTACT BROKEN <u>ABSENT</u>											
Relinquished By: (4) _____ Date _____ Time _____ Received By: _____ Date _____ Time _____						Special Instructions:		Requested Turnaround Time: <input type="checkbox"/> RUSH _____ Date Needed _____ <input type="checkbox"/> STD											

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N.C. CERTIFICATION #481

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