GeoEngineers

2004/2005 Compliance Groundwater Sampling
Family Fun Center Site
Tukwila, Washington

July 6, 2005

For
Family Fun Center

Earth Science + Technology

GeoEngineers

Earth Science + Technology

FAMILY FUN CENTER
TUKWILA
TCP

7300 FUN CENTER WAY

1994 -

Mtg. w/ to Kurt Anderson 8/1/05 re: file of VCP applic. recess, as prev. closed out, w/ info locking out tags & doubtful can get NFA ltr. of all exceedences. Please advise if will enter, or not, so can determ. how to file this sept. re VCP

2004/2005 COMPLIANCE GROUNDWATER SAMPLING
FAMILY FUN CENTER SITE
TUKWILA, WASHINGTON

JULY 6, 2005

FOR
FAMILY FUN CENTER

GeoEngineers

File No. 5925-003-06

2004/2005 Compliance Groundwater Sampling
Family Fun Center Site
GEI File No. 5925-003-06

July 6, 2005

Prepared for:

Family Fun Center
7300 Fun Center Way
Tukwila, Washington 98188

Attention: Scott Huish

Prepared by:
GeoEngineers, Inc.
2924 Colby Avenue
Everett, Washington 98201
425-252-4565

Lisa J. Bona

Lisa J. Bona, LG
Senior Geologist

Galan W. McSelly

for **Kurt S. Anderson, LG, LHG**
Principal

MET:LJB:KSA:akf
EVER:\P:\5\5925003\06\Finals\592500306R.doc

cc: Gail Colburn
Washington State Department of Ecology
Northwest Regional Office
3190 - 160th Avenue SE
Bellevue, Washington 98008

TABLE OF CONTENTS

List of Tables

List of Figures

APPENDICES

2004/2005 COMPLIANCE GROUNDWATER SAMPLING
FAMILY FUN CENTER SITE
TUKWILA, WASHINGTON
FOR
FAMILY FUN CENTER

INTRODUCTION AND BACKGROUND

This report summarizes GeoEngineers' services during four consecutive groundwater sampling events at the Family Fun Center site in Tukwila, Washington. The activities described in this report were conducted between April 2004 and January 2005. The general layout of the site is shown on Figure 1.

Family Fun Center has owned the site, comprising three parcels, since 1998. GeoEngineers assisted Family Fun Centers with remediation of pre-existing soil contamination on Parcels 2 and 3 from May 1998 to January 1999, before and during site development as an amusement park. Cleanup actions included (1) the excavation of several "hot spots", (2) transport and recycling off-site of excavated soils containing contaminants of concern other than hydrocarbons (metals, pesticides and polynuclear aromatic hydrocarbons [PAHs]), (3) screening and selective segregation of soil from an 80,000-cubic-yard-plus stockpile, and (4) on-site placement and capping of soils containing slag and soil with hydrocarbons that exceeded site-specific cleanup levels. Three monitoring wells, MW-20 through MW-22, were installed at the downgradient portion of the site in 2002. Semiannual groundwater monitoring in April and October 2002 was conducted.

OBJECTIVE AND SCOPE

The objective of our 2004/2005 services was to complete quarterly compliance groundwater monitoring at the site, subsequent to the 1998 remedial activities. GeoEngineers' specific scope of services completed for this project included:

1. Obtained groundwater samples from the compliance monitoring wells on a quarterly basis. Each well was purged of at least three well volumes of water prior to sampling.
2. Submitted the groundwater samples for chemical analysis of the following: benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 8021B; gasoline-range hydrocarbons by Ecology Method NWTPH-Gx; diesel- and heavy oil-range hydrocarbons by Ecology Method NWTPH-Dx with a silica gel/sulfuric acid cleanup (to prevent result bias from organic material); total and dissolved metals (arsenic, chromium, nickel and lead) by EPA 6000 and 7000 series methods. Total solids of the groundwater samples were measured in the field.
3. Obtained a sample of purge and decontamination water in April and November 2004 and January 2005, and submitted the samples for chemical analysis of BETX, and fats, oil and grease by EPA Method 1664. Disposed of the water at GeoEngineers' Redmond sanitary sewer connection, in general accordance with GeoEngineers' Metro Discharge Authorization 393.

For purposes of discussion, groundwater concentrations were compared to MTCA Method A cleanup levels. However, the objective of compliance groundwater monitoring was to observe trends in concentrations. A restrictive covenant for the site prohibits consumptive use of groundwater. Therefore, closure of the site has not been dependent upon groundwater concentrations being less than MTCA Method A cleanup levels.

COMPLIANCE GROUNDWATER SAMPLING RESULTS

BETX and petroleum hydrocarbons were not detected in the four quarters of samples obtained from monitoring wells MW-20 through MW-22. One or more metals were detected in the analysis of total and dissolved metals in each of the wells during at least two events during this sampling period. Dissolved arsenic concentrations exceeded the MTCA Method A cleanup level in all samples in which dissolved arsenic was detected. However, neither total nor dissolved arsenic concentrations exceeded the published background concentration range for arsenic in groundwater of 10 to greater than 50 milligrams per liter (mg/l) during the four events. Dissolved lead (17 micrograms per liter [µg/l]) exceeded the MTCA Method A cleanup level of 15 µg/l in the November 2004 sample from MW-20; otherwise, dissolved lead concentrations did not exceed the MTCA Method A cleanup level. When detected, total and dissolved nickel and dissolved chromium were at concentrations less than the applicable MTCA Method A or Method B cleanup levels. Total chromium concentrations exceeded the MTCA Method A cleanup level in two groundwater samples from MW-20 during this reporting period.

A sample of purge water generated during sampling of the wells was obtained during the April and November 2004 and January 2005 sampling events. BETX and total fats, oils and grease were not detected in the purge water samples, with one exception. Toluene was detected at a concentration of 49 µg/l in the April 2004 sample. The 1996 MTCA Method A cleanup level for toluene was 40 µg/l; the 2001 MTCA Method A cleanup level for toluene was increased to 1,000 µg/l. Based on the BETX and total fats, oils and grease result for the purge water samples, the water was disposed of at GeoEngineers' Redmond office in accordance with our sanitary sewer discharge permit.

CONCLUSIONS AND RECOMMENDATION

Conclusions regarding groundwater monitoring at the site following remedial excavation in 1998 include:

- BETX and petroleum hydrocarbons are not contaminants of concern in the groundwater, based on the 2004/2005 groundwater sampling of the compliance monitoring wells.
- One or more metals were detected during most sampling events. Arsenic concentrations appear to be less than background levels. Total chromium and lead and dissolved lead concentrations exceeded MTCA Method A cleanup levels in one or more wells during one or more sampling events in 2004/2005.

Based on the results from the quarterly sampling events for 2004/2005 we recommend that no further action is required at the Family Fun Center site, for the following reasons:

- In general, the detected metals concentrations in groundwater decreased since 2002, when the monitoring wells were installed.
- A restrictive covenant prohibits consumptive use of groundwater at the site.

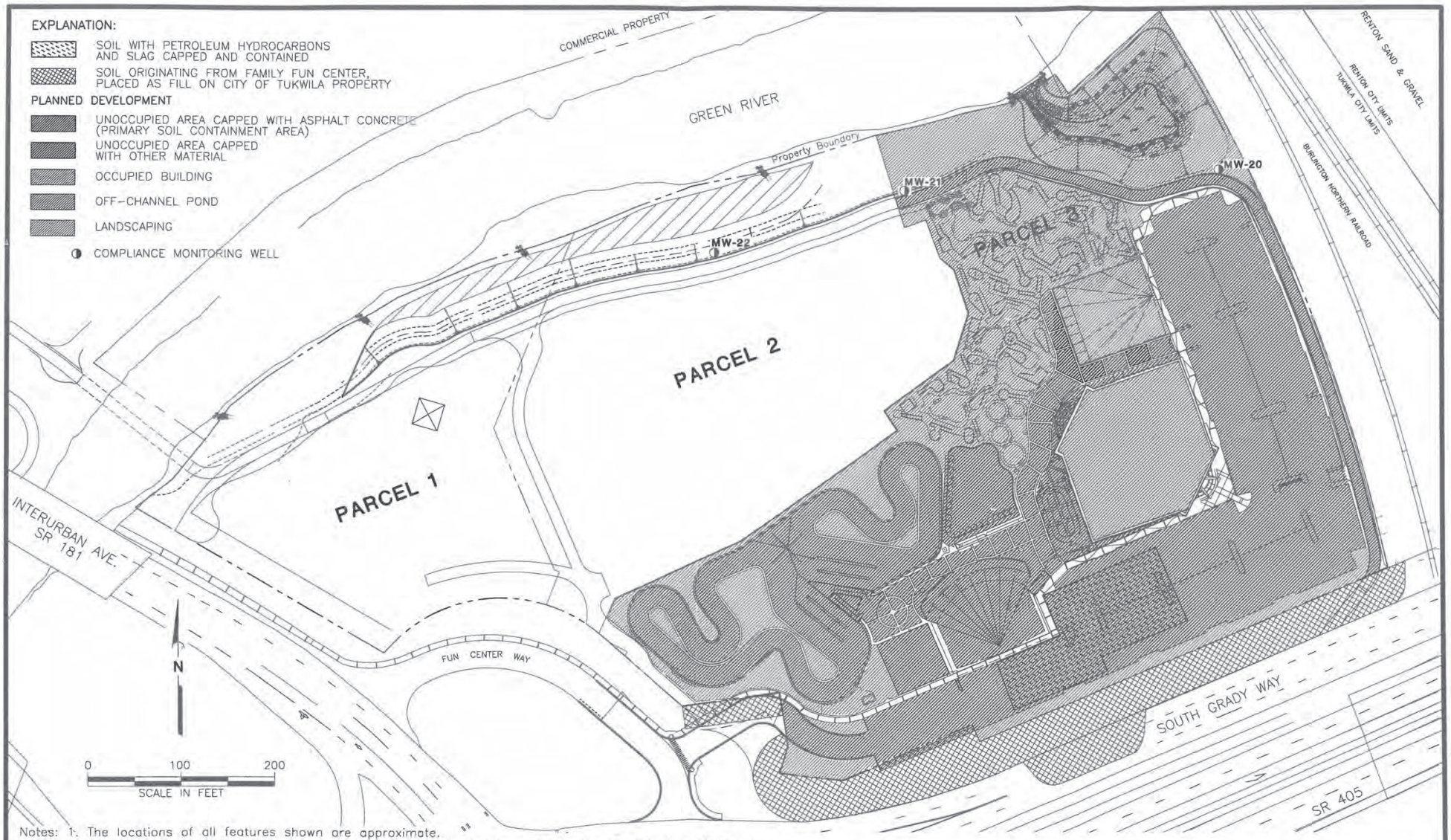
LIMITATIONS

We have prepared this report for the exclusive use of Family Fun Center their authorized agents and regulatory agencies for compliance groundwater sampling at the Family Fun Center site.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to the appendix titled "Report Limitations and Guidelines for Use" for additional information pertaining to use of this report. Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

We appreciate the opportunity to be of service on this project. Please do not hesitate to contact us if you have questions regarding this report.



Notes: 1. The locations of all features shown are approximate.
2. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

Reference: Drawing entitled "Overall Site Plan, Family Fun Center" by Mulvanny Partnership Architects, 01/27/99.

GeoEngineers

SITE PLAN
FAMILY FUN CENTER FACILITIES

FIGURE 1

EVER:\P\5\5925003\06\CAD\5925003O6A.DWG LJB:AKF 03/01/05

GeoEngineers

APPENDIX A
FIELD METHODS

APPENDIX A
FIELD METHODS

DEPTHS TO GROUNDWATER AND TURBIDITY MEASUREMENTS

The depths to the groundwater table relative to the monitoring well casing rims were measured on April 14, July 15 and November 4, 2004, and January 19, 2005. Turbidity measurements of total solids were measured on April 14 and July 15, 2004 and January 19, 2005. The water level measurements were made using an electric water level indicator. Turbidity measurements were obtained using a turbidimeter. The field equipment was cleaned with an Alconox solution wash and a distilled water rinse prior to use in the well. The water level data are presented in Table 1; turbidity (total solids) data are presented in Table 2.

GROUNDWATER SAMPLING

Groundwater samples were obtained from monitoring wells MW-20 through MW-22 on April 14, July 15 and November 4, 2004, and January 19, 2005. Each water sample was obtained with a new disposable polyethylene bailer and clean nylon bailing rope after at least three well volumes of water were removed from the well casing. Purge water samples were obtained from the composite purge water obtained from the April 14 and November 2, 2004 and January 19, 2005. The purge water samples were obtained using a disposable polyethylene bailer.

The water samples were transferred in the field to laboratory-prepared sample containers and kept cool during transport to the testing laboratory. The sample containers were filled completely to minimize headspace in the container. Chain-of-custody procedures were followed in transporting the water samples to the testing laboratory.

GeoEngineers

Appendix B
Chemical Analytical Program

APPENDIX B
CHEMICAL ANALYTICAL PROGRAM

ANALYTICAL METHODS

Chain-of-custody procedures were followed during the transport of the field samples to the analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory quality control) records are included in this appendix. The analytical results are also summarized in the text and table of this report.

ANALYTICAL DATA REVIEW

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. GeoEngineers reviewed the laboratory quality control information.

ANALYTICAL DATA REVIEW SUMMARY

No significant data quality exceptions were noted in the laboratory reports or during our review. Based on our data quality review, it is our opinion that the analytical data are of acceptable quality for their intended use.

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 4/26/04
CCIL JOB #: 404067
CCIL SAMPLE #: 1
DATE RECEIVED: 4/14/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-20 4/14/04 1155

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	4/15/04	DLC
BENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
TOLUENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
XYLENES	EPA-8021	ND	3	1	UG/L	4/15/04	DLC
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	4/21/04	LAH
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	4/21/04	LAH
TOTAL ARSENIC	EPA-7060	0.020	0.005	1	MG/L	4/22/04	RAB
TOTAL CHROMIUM	EPA-6010	0.009	0.007	1	MG/L	4/20/04	RAB
TOTAL LEAD	EPA-7421	0.007	0.003	1	MG/L	4/20/04	RAB
TOTAL NICKEL	EPA-6010	0.02	0.02	1	MG/L	4/20/04	RAB
DISSOLVED ARSENIC	EPA-7060	ND	0.005	1	MG/L	4/22/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	4/20/04	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	4/20/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	4/20/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 4/26/04
CCIL JOB #: 404067
CCIL SAMPLE #: 2
DATE RECEIVED: 4/14/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-21 4/14/04 1255

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	4/15/04	DLC
BENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
TOLUENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
XYLENES	EPA-8021	ND	3	1	UG/L	4/15/04	DLC
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	4/21/04	LAH
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	4/21/04	LAH
TOTAL ARSENIC	EPA-7060	0.021	0.005	1	MG/L	4/22/04	RAB
TOTAL CHROMIUM	EPA-6010	0.010	0.007	1	MG/L	4/20/04	RAB
TOTAL LEAD	EPA-7421	0.004	0.003	1	MG/L	4/20/04	RAB
TOTAL NICKEL	EPA-6010	ND	0.02	1	MG/L	4/20/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.009	0.005	1	MG/L	4/22/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	4/20/04	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	4/20/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	4/20/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 4/26/04
CCIL JOB #: 404067
CCIL SAMPLE #: 3
DATE RECEIVED: 4/14/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-22 4/14/04 1355

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	4/15/04	DLC
BENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
TOLUENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
XYLENES	EPA-8021	ND	3	1	UG/L	4/15/04	DLC
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	4/21/04	LAH
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	4/21/04	LAH
TOTAL ARSENIC	EPA-7060	0.009	0.005	1	MG/L	4/22/04	RAB
TOTAL CHROMIUM	EPA-6010	0.010	0.007	1	MG/L	4/20/04	RAB
TOTAL LEAD	EPA-7421	0.009	0.003	1	MG/L	4/20/04	RAB
TOTAL NICKEL	EPA-6010	ND	0.02	1	MG/L	4/20/04	RAB
DISSOLVED ARSENIC	EPA-7060	ND	0.005	1	MG/L	4/22/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	4/20/04	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	4/20/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	4/20/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY: 

8620 Holly Drive • Everett, WA 98208 • 425.356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 4/26/04
CCIL JOB #: 404067
CCIL SAMPLE #: 4
DATE RECEIVED: 4/14/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: PURGE04-14-04 4/14/04 1400

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
BENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
TOLUENE	EPA-8021	49	1	1	UG/L	4/15/04	DLC
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	4/15/04	DLC
XYLENES	EPA-8021	ND	3	1	UG/L	4/15/04	DLC
TOTAL FATS, OILS, GREASES	EPA-1664	ND	1	1	MG/L	4/21/04	HJK

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 4/26/04
CCIL JOB #: 404067

DATE RECEIVED: 4/14/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	SPIKE AMOUNT	% RECV
404067-01	NWTPH-GX	TFT	10 PPB	102
404067-01	EPA-8021	TFT	10 PPB	90
404067-01	NWTPH-DX	C25	100 PPB	125
404067-02	NWTPH-GX	TFT	10 PPB	98
404067-02	EPA-8021	TFT	10 PPB	87
404067-02	NWTPH-DX	C25	100 PPB	109
404067-03	NWTPH-GX	TFT	10 PPB	101
404067-03	EPA-8021	TFT	10 PPB	88
404067-03	NWTPH-DX	C25	100 PPB	96
404067-04	EPA-8021	TFT	10 PPB	91

BLANK AND DUPLICATE RESULTS

METHOD	BLK RESULT	ASSOC SMPLS
NWTPH-GX (GAS)	ND(<50)	404067-01 TO 03
EPA-8021(BENZENE)	ND(<1)	404067-01 TO 04
EPA-8021(TOLUENE)	ND(<1)	404067-01 TO 04
EPA-8021(ETHYLBENZ)	ND(<1)	404067-01 TO 04
EPA-8021(XYLENE)	ND(<3)	404067-01 TO 04
NWTPH-DX (DSL)	ND(<130)	404067-01 TO 03
NWTPH-DX (OIL)	ND(<250)	404067-01 TO 03
EPA-7060 (TOTAL AS)	ND(<0.005)	404067-01 TO 03
EPA-6010 (TOTAL CR)	ND(<0.007)	404067-01 TO 03
EPA-7421 (TOTAL PB)	ND(<0.003)	404067-01 TO 03
EPA-6010 (TOTAL NI)	ND(<0.02)	404067-01 TO 03
EPA-7060 (DISS AS)	ND(<0.005)	404067-01 TO 03
EPA-6010 (DISS CR)	ND(<0.007)	404067-01 TO 03
EPA-7421 (DISS PB)	ND(<0.003)	404067-01 TO 03
EPA-6010 (DISS NI)	ND(<0.02)	404067-01 TO 03
EPA-1664	ND(<1)	404067-04

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 4/26/04
CCIL JOB #: 404067

DATE RECEIVED: 4/14/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SPIKE/ SPIKE DUPLICATE RESULTS

METHOD	SPIKE ID	ASSOCIATED SAMPLES	SPIKE AMOUNT	DILUTION FACTOR	% SPIKE RECOVERY	% SPIKE DUP RECOVERY	REL % DIFF
NWTPH-GX	GASOLINE	404067-01 TO 03	500 PPB	1	88	82	7
EPA-8021	BENZENE	404067-01 TO 04	20 PPB	1	95	95	0
EPA-8021	TOLUENE	404067-01 TO 04	20 PPB	1	92	93	1
EPA-8021	ETHYLBENZENE	404067-01 TO 04	20 PPB	1	93	95	2
EPA-8021	XYLENE	404067-01 TO 04	60 PPB	1	89	93	4
NWTPH-DX	DIESEL	404067-01 TO 04	1.3 PPM	1	85	82	4
EPA-7060 (TOTAL AS)	ARSENIC	404067-01 TO 03	20 PPB	1	94	81	15
EPA-6010 (TOTAL CR)	CHROME	404067-01 TO 03	1 PPM	1	104	103	1
EPA-7421 (TOTAL PB)	LEAD	404067-01 TO 03	20 PPB	1	93	106	13
EPA-6010 (TOTAL NI)	NICKEL	404067-01 TO 03	1 PPM	1	106	106	0
EPA-7060 (DISS AS)	ARSENIC	404067-01 TO 03	20 PPB	1	94	81	15
EPA-6010 (DISS CR)	CHROME	404067-01 TO 03	1 PPM	1	104	103	1
EPA-7421 (DISS PB)	LEAD	404067-01 TO 03	20 PPB	1	93	106	13
EPA-6010 (DISS NI)	NICKEL	404067-01 TO 03	1 PPM	1	106	106	0
EPA-1664	OPR	404067-04	40 PPM	1	99	NA	NA

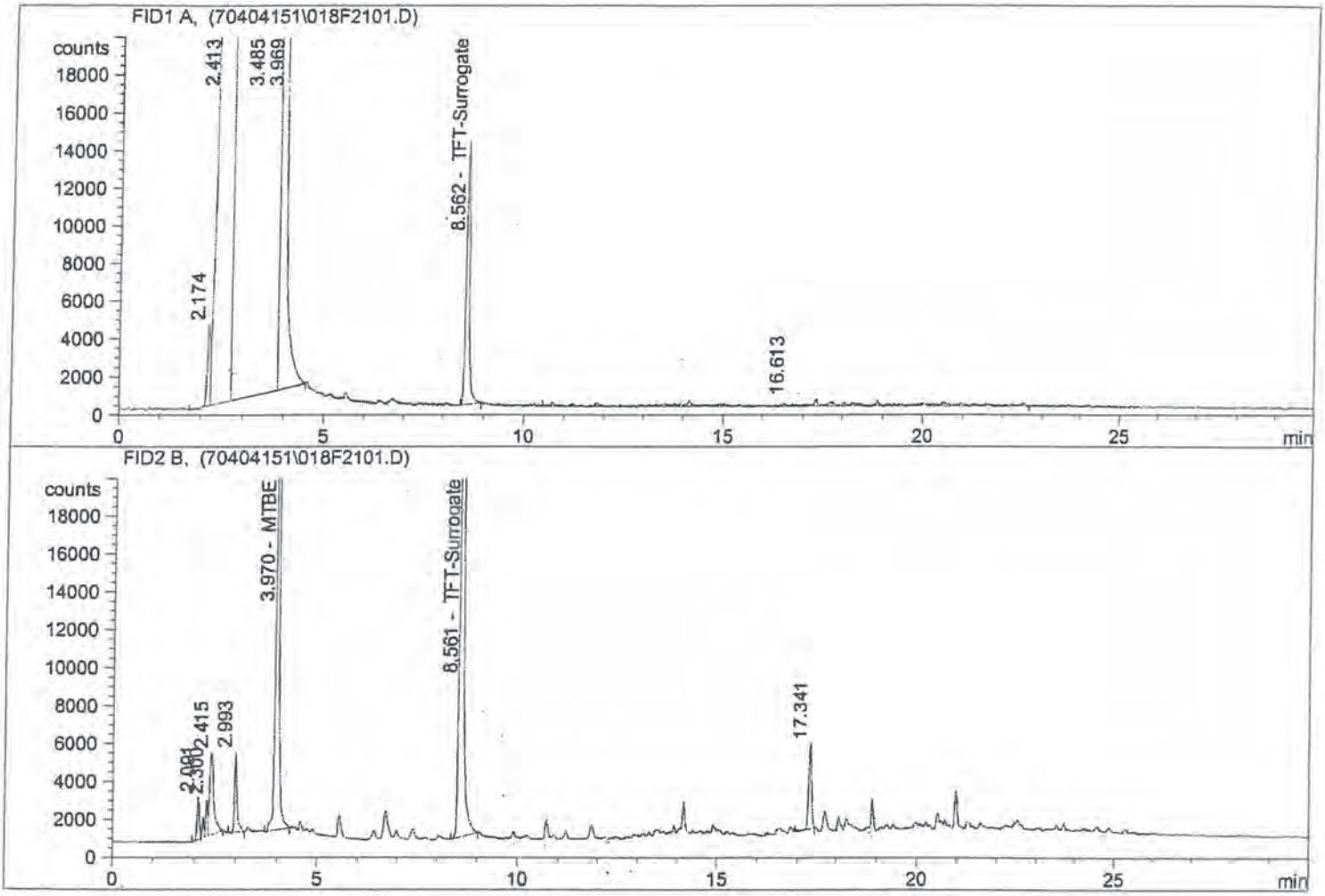
APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

Data File: C:\HPCHEM\1\DATA\70404151\018F2101.D
Injection Date & Time: 4/15/2004 9:30:27 PM
Report Created on: 4/16/2004 9:35:23 AM
Operator: DLC
Aquistion Method: 70GB1003.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB1003.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:404067-1 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.562	TFT-Surrogate	80816.102	10.200
0.000	Gasoline Envelope	0.000	0.000

102%

Gas < 50 µg/L

REVIEWED BY RI & DATE 4/21/04

Ret. Time	Compound Name	Area	Amount ug/L
3.970	MTBE	188581.375	7.320
0.000	Benzene	0.000	0.000
8.561	TFT-Surrogate	300226.344	8.965
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

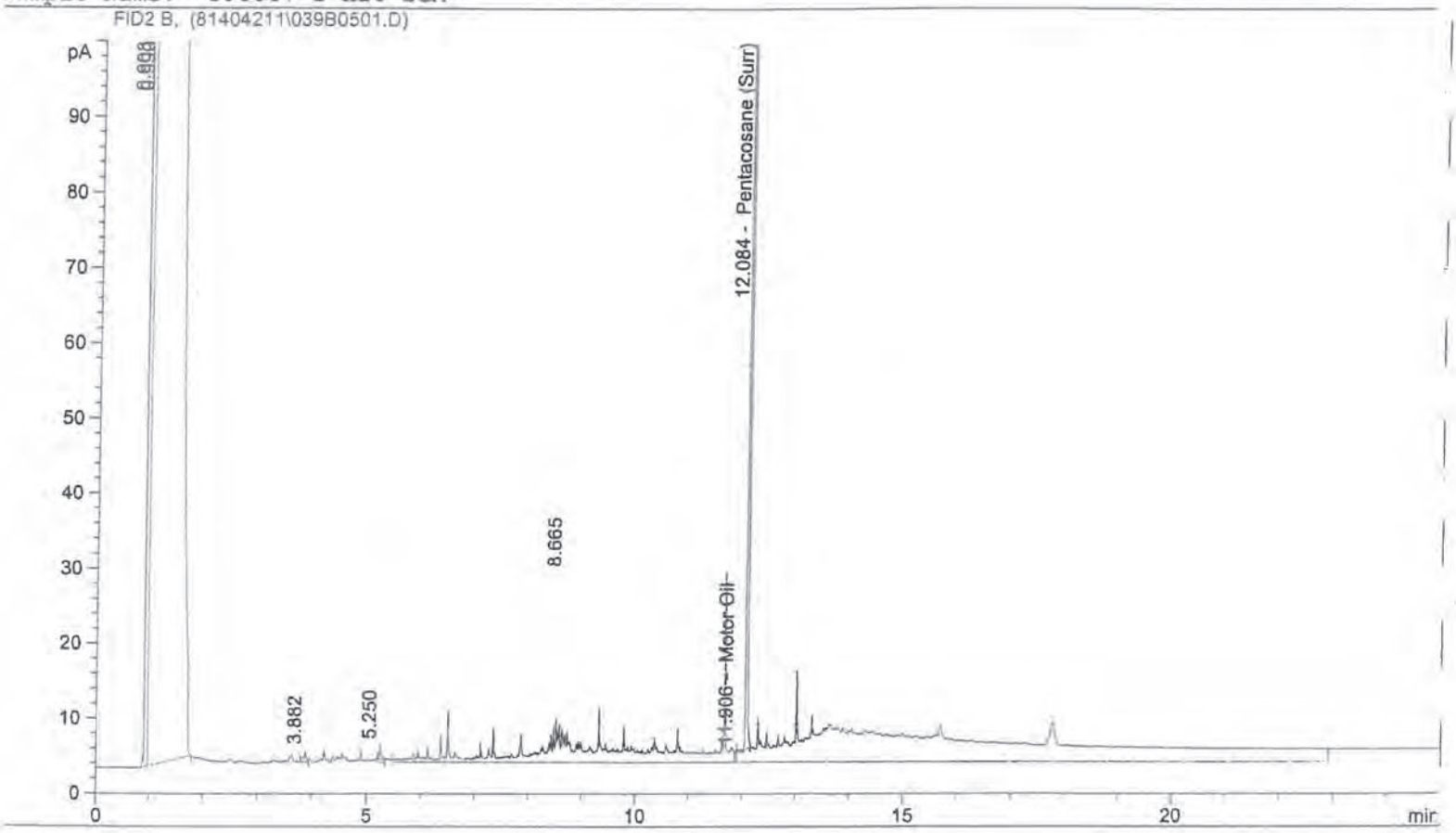
90%

B, T, E < 1 µg/L X < 3 µg/L

4-16-04 DC

Instrument #01 Data File: C:\HPCHEM\1\DATA\81404211\039B0501.D
Operator: LAH
Method: C:\HPCHEM\1\METHODS\BDMO0104.M
Injection Date & Time: 4/21/04 10:55:58 AM 4/21/04 10:55:58 AM
Report Creation: 4/21/04 1:44:03 PM

Sample Name: 404067-1 H20 SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
0.000	FID2 B,	Diesel	0.000	0.000
11.906		Motor Oil	1661.679	73.158
12.084		Pentacosane (Surr)	826.462	50.009

÷40×100=125%

D < 50µg/mL × 1.0mL/400mL < 0.13mg/L

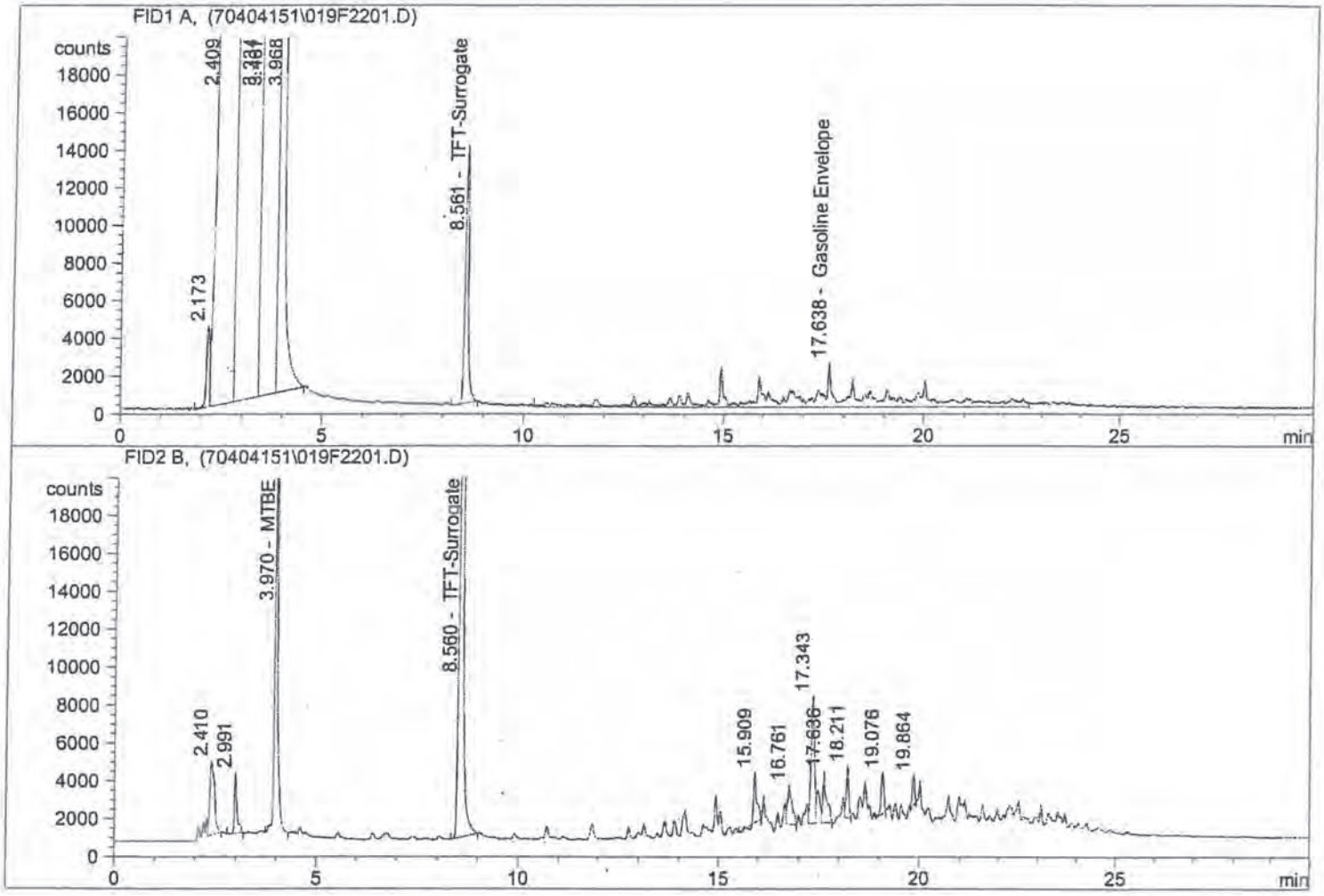
MO < 100µg/mL × 1.0mL/400mL < 0.25mg/L

4-21-04 LH

Data File: C:\HPCHEM\1\DATA\70404151\019F2201.D
Injection Date & Time: 4/15/2004 10:06:23 PM
Report Created on: 4/16/2004 12:39:09 PM
Operator: DLC
Aquistion Method: 70GB1003.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB1003.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:404067-2 5ML



Ret. Time	Compound Name	Area	Amount ug/L	
8.561	TFT-Surrogate	77537.805	9.758	98%
17.638	Gasoline Envelope	241716.547	27.517	

Gas < 50µg/L

REVIEWED BY & DATE 4/21/04

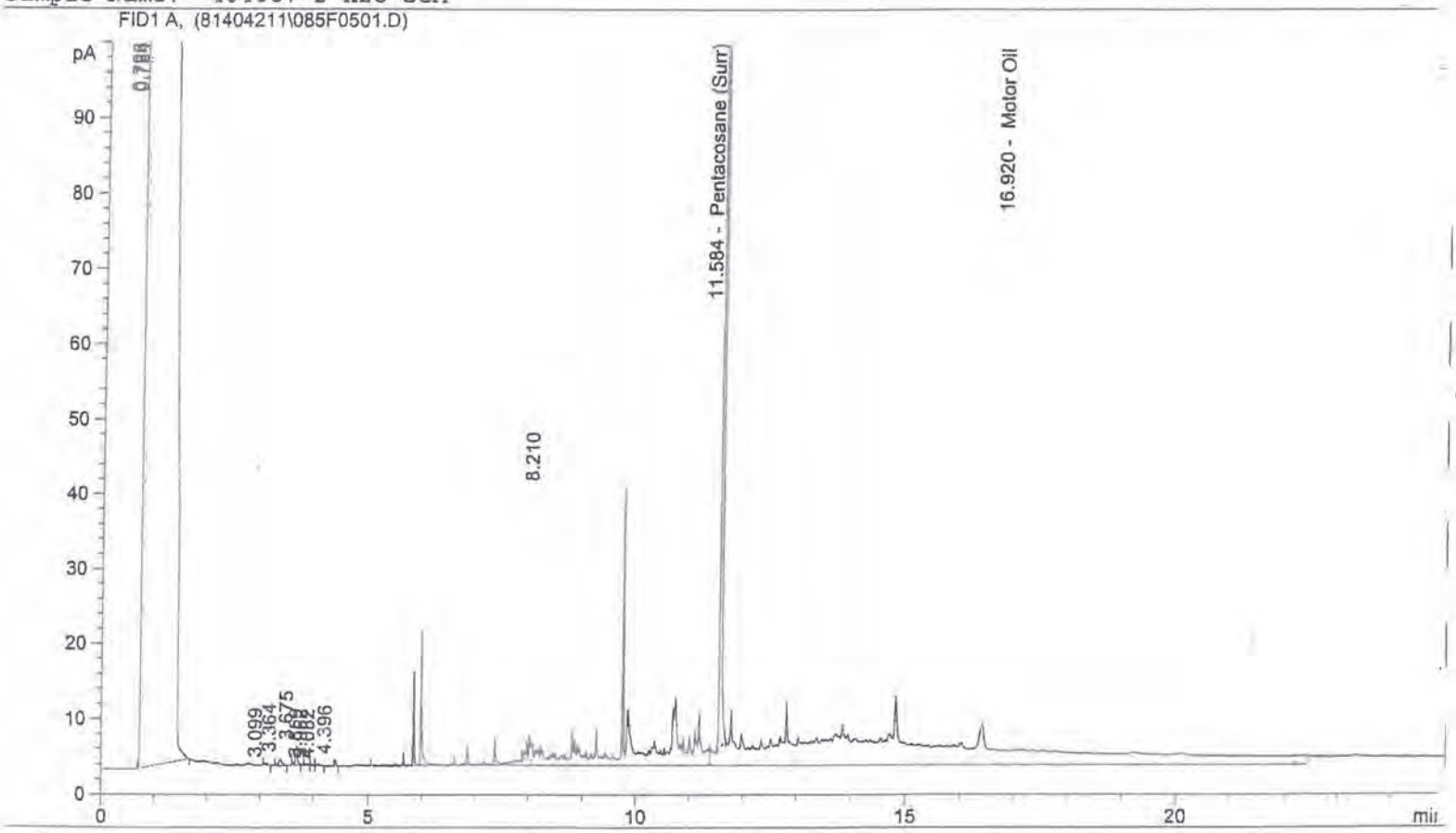
Ret. Time	Compound Name	Area	Amount ug/L	
3.970	MTBE	119353.859	3.945	
0.000	Benzene	0.000	0.000	
8.560	TFT-Surrogate	291977.500	8.712	87%
0.000	Toluene	0.000	0.000	
0.000	Ethylbenzene	0.000	0.000	
0.000	M & P- Xylenes	0.000	0.000	
0.000	O-Xylene	0.000	0.000	

B,T,E < 1µg/L X < 3µg/L

4-16-04 DC

Instrument #81 Data File: C:\HPCHEM\1\DATA\81404211\085F0501.D
Operator: LAH
Method: C:\HPCHEM\1\METHODS\FDM00603.M
Injection Date & Time: 4/21/04 10:55:58 AM 4/21/04 10:55:58 AM
Report Creation: 4/21/04 1:42:45 PM

Sample Name: 404067-2 H2O SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
0.000	FID1 A,	Diesel	0.000	0.000
11.584		Pentacosane (Surr)	759.442	43.649
16.920		Motor Oil	1413.173	73.629

43.649 : 40 X 100 = 109%

D < 0.13 mg/L

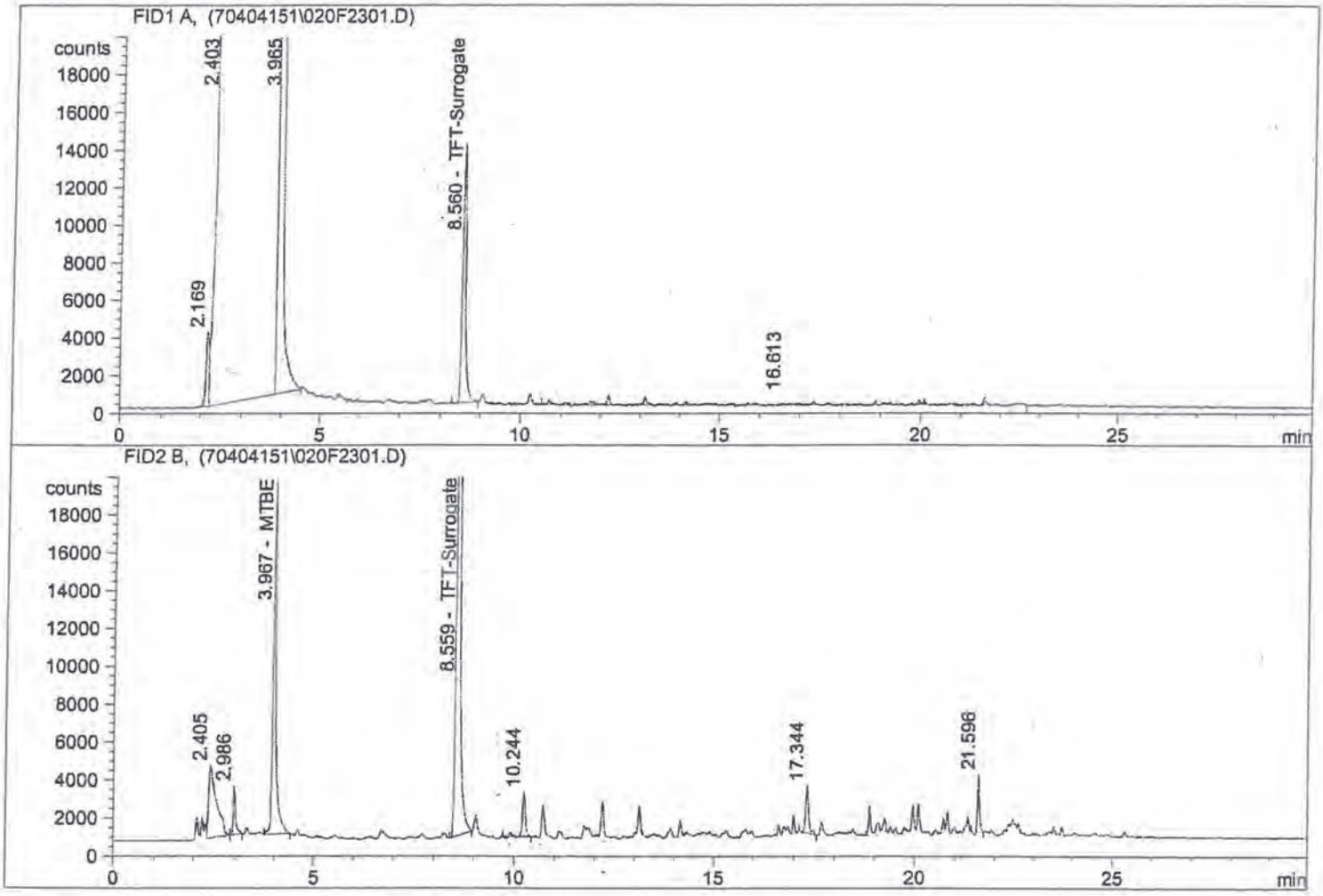
MO < 0.25 mg/L

4-21-04 LH

Data File: C:\HPCHEM\1\DATA\70404151\020F2301.D
Injection Date & Time: 4/15/2004 10:42:15 PM
Report Created on: 4/16/2004 9:36:23 AM
Operator: DLC
Aquistion Method: 70GB1003.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB1003.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:404067-3 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.560	TFT-Surrogate	79846.734	10.069
0.000	Gasoline Envelope	0.000	0.000

101%

REVIEWED BY & DATE 4/21/04

Gas < 50 µg/L

Ret. Time	Compound Name	Area	Amount ug/L
3.967	MTBE	100897.414	3.046
0.000	Benzene	0.000	0.000
8.559	TFT-Surrogate	296196.562	8.841
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

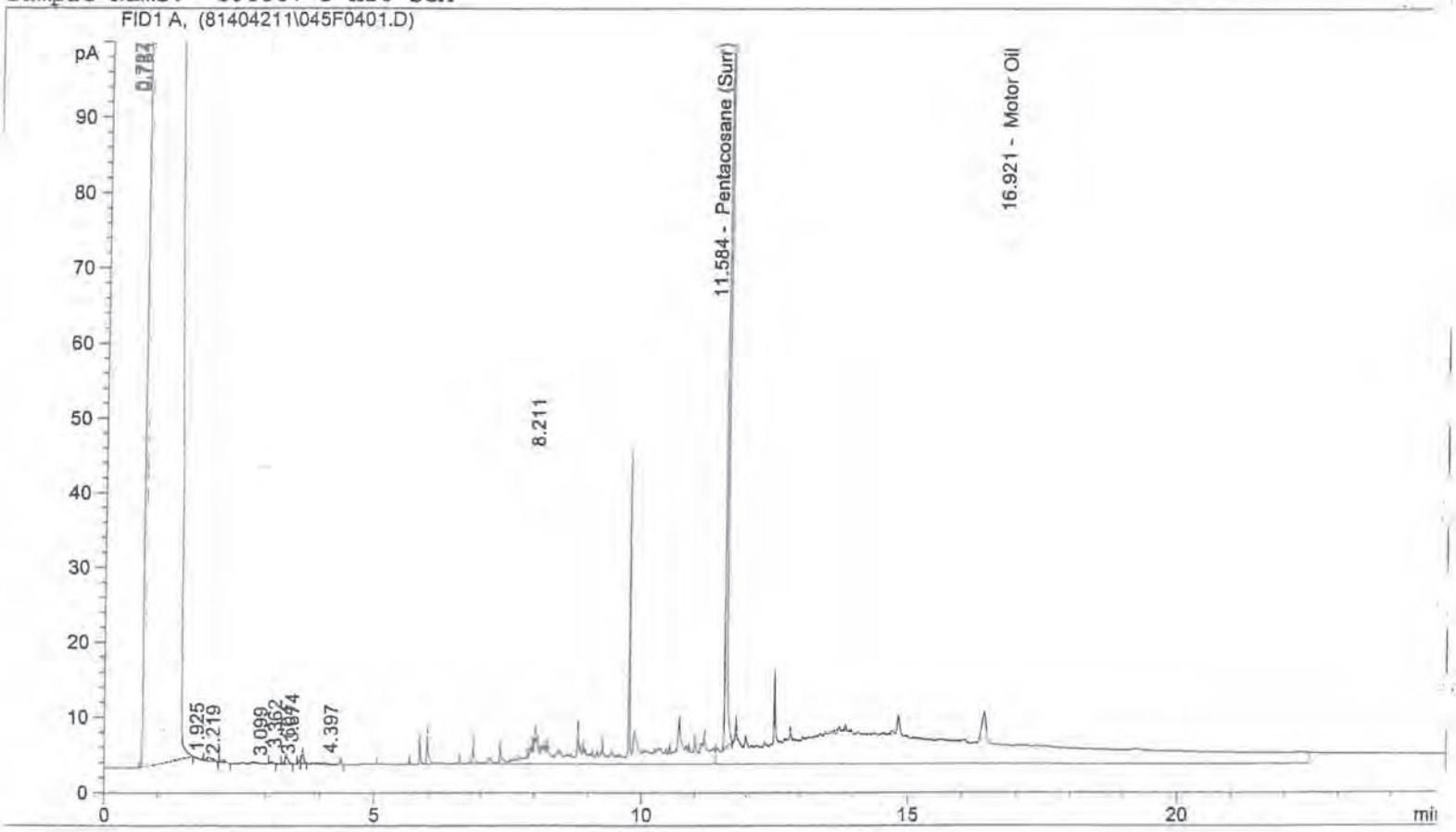
88%

B, T, E < 1 µg/L X < 3 µg/L

4-16-04 DC

Operator: LAH
Method: C:\HPCHEM\1\METHODS\FDMO0603.M
Injection Date & Time: 4/21/04 10:25:27 AM 4/21/04 10:25:27 AM
Report Creation: 4/21/04 11:04:42 AM

Sample Name: 404067-3 H20 SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
0.000	FID1 A,	Diesel	0.000	0.000
11.584		Pentacosane (Surr)	665.906	38.264 96%
16.921		Motor Oil	1662.049	94.656

D < 0.13 mg/L

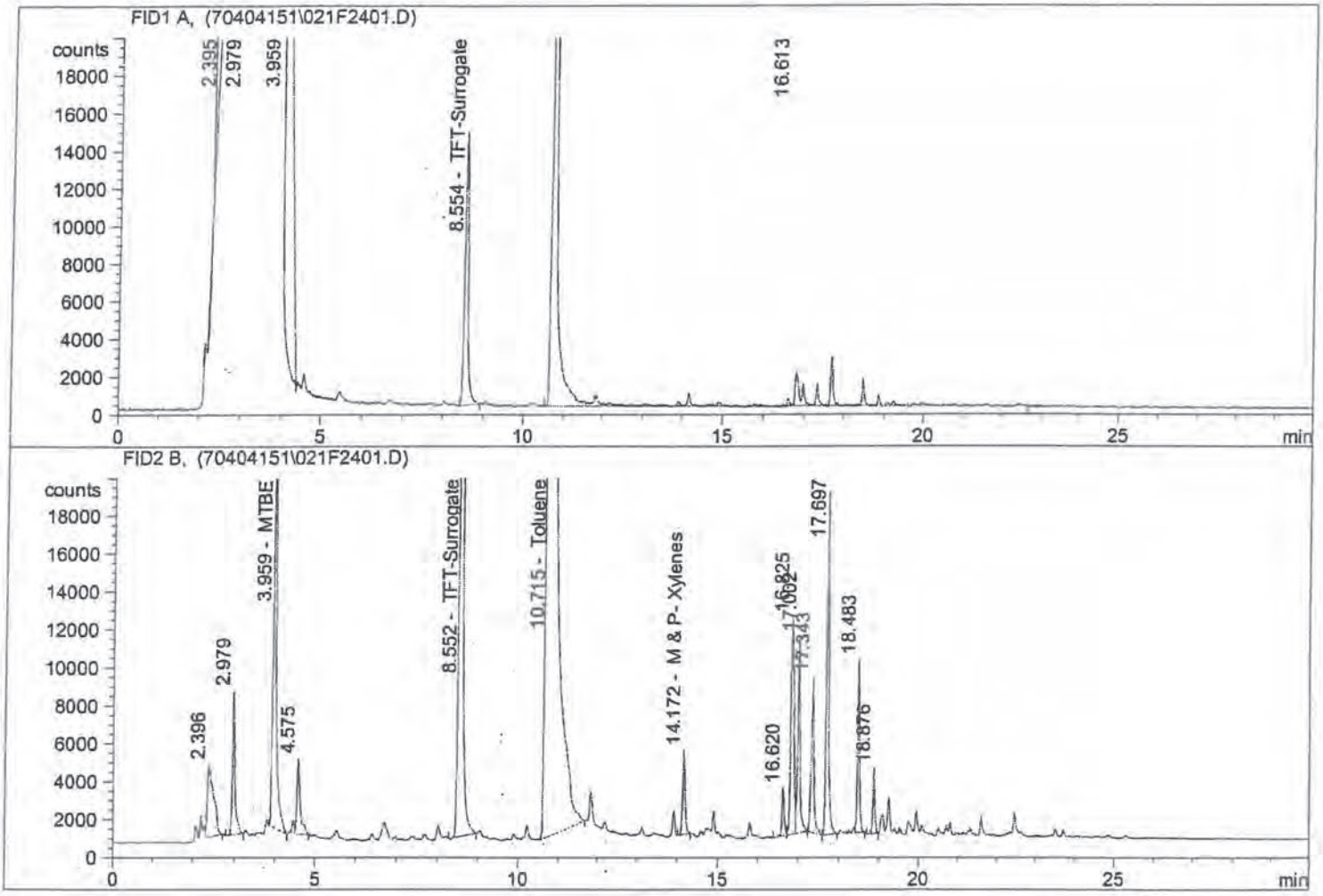
MD < 0.25 mg/L

4-21-04 LH

Data File: C:\HPCHEM\1\DATA\70404151\021F2401.D
Injection Date & Time: 4/15/2004 11:18:06 PM
Report Created on: 4/16/2004 9:36:40 AM
Operator: DLC
Aquistion Method: 70GB1003.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB1003.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:404067-4 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.554	TFT-Surrogate	83798.719	10.602
0.000	Gasoline Envelope	0.000	0.000

106%

Gas < 50 µg/L

REVIEWED BY RB
& DATE 4/21/04

Ret. Time	Compound Name	Area	Amount ug/L
3.959	MTBE	114027.570	3.686
0.000	Benzene	0.000	0.000
8.552	TFT-Surrogate	304718.094	9.103
10.715	Toluene	4.176e+006	49.159
0.000	Ethylbenzene	0.000	0.000
14.172	M & P- Xylenes	18991.859	0.188
0.000	O-Xylene	0.000	0.000

91%
– confirmed w/rerun

B; E < 1 µg/L T = 49 µg/L X < 3 µg/L

4-16-04 DC

8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 404067

Date _____ Page _____ Of _____

PROJECT ID: 5925-003-06
REPORT TO COMPANY: GeoEngineers
PROJECT MANAGER: Matt Thomas
ADDRESS: 2924 Colby Ave
Everett, WA 98201
PHONE: 425.252.4565 FAX: 425.252.4586
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX w/ Si-gel / Sulph. acid cleanup	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify): Total Metals (As, Cr, Ni, Pb)	Dissolved metals (As, Cr, Ni, Pb) lab filter	F06 by EPA 413.2	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-20	4/14/04	1155	W	1		X	X	X												X	X		5	
2. MW-21	"	1255	"	2		X	X	X												X	X		5	
3. MW-22	"	1355	"	3		X	X	X												X	X		5	
4. PURGE04-14-04	4/14/04	1400	W	4				X														X	3	
5.																								
6.																								
7.																								
8.																								
9.																								
10.																								

REPORT COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: GeoEngineers, 4/14/04 15:51
   Received By: CCIAL 4/14/04 15:51
2. Relinquished By: _____
   Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ☒ 10 Standard ☐ 5 ☐ 3 ☐ 2 ☐ 1 ☐ SAME DAY

Fuels & Hydrocarbon Analysis: ☒ Standard ☐ 3 ☐ 1 ☐ SAME DAY

OTHER:
Specify: Lab Filter
Total + Dissolved metals

* Turnaround request less than standard may [illegible] Rush Ch[illegible]

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 7/29/04
CCIL JOB #: 407057
CCIL SAMPLE #: 1
DATE RECEIVED: 7/15/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-20 7/15/04 11:20

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	7/19/04	LAH
BENZENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	7/19/04	LAH
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	7/19/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	7/19/04	DLC
TOTAL ARSENIC	EPA-7060	0.040	0.010	2	MG/L	7/21/04	RAB
TOTAL CHROMIUM	EPA-6010	0.062	0.007	1	MG/L	7/19/04	RAB
TOTAL LEAD	EPA-7421	0.058	0.006	2	MG/L	7/21/04	RAB
TOTAL NICKEL	EPA-6010	0.04	0.02	1	MG/L	7/19/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.026	0.005	1	MG/L	7/27/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	7/19/04	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	7/28/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	7/19/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

RECEIVED
AUG 02 2004
GEO ENGINEERS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 7/29/04
CCIL JOB #: 407057
CCIL SAMPLE #: 2
DATE RECEIVED: 7/15/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-21 7/15/04 11:50

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	7/19/04	LAH
BENZENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	7/19/04	LAH
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	7/19/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	7/19/04	DLC
TOTAL ARSENIC	EPA-7060	0.019	0.005	1	MG/L	7/21/04	RAB
TOTAL CHROMIUM	EPA-6010	0.059	0.007	1	MG/L	7/19/04	RAB
TOTAL LEAD	EPA-7421	0.017	0.003	1	MG/L	7/21/04	RAB
TOTAL NICKEL	EPA-6010	ND	0.02	1	MG/L	7/19/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.010	0.005	1	MG/L	7/27/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	7/19/04	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	7/28/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	7/19/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 7/29/04
CCIL JOB #: 407057
CCIL SAMPLE #: 3
DATE RECEIVED: 7/15/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-22 7/15/04 12:20

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	7/19/04	LAH
BENZENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	7/19/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	7/19/04	LAH
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	7/19/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	7/19/04	DLC
TOTAL ARSENIC	EPA-7060	0.015	0.005	1	MG/L	7/21/04	RAB
TOTAL CHROMIUM	EPA-6010	0.033	0.007	1	MG/L	7/19/04	RAB
TOTAL LEAD	EPA-7421	0.030	0.003	1	MG/L	7/21/04	RAB
TOTAL NICKEL	EPA-6010	ND	0.02	1	MG/L	7/19/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.007	0.005	1	MG/L	7/27/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	7/19/04	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	7/28/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	7/19/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 7/29/04
CCIL JOB #: 407057

DATE RECEIVED: 7/15/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	SPIKE AMOUNT	% RECV
407057-01	NWTPH-GX	TFT	10 PPB	95
407057-01	EPA-8021	TFT	10 PPB	102
407057-01	NWTPH-DX W/CLEANUP	C25	100 PPB	95
407057-02	NWTPH-GX	TFT	10 PPB	88
407057-02	EPA-8021	TFT	10 PPB	96
407057-02	NWTPH-DX W/CLEANUP	C25	100 PPB	100
407057-03	NWTPH-GX	TFT	10 PPB	95
407057-03	EPA-8021	TFT	10 PPB	103
407057-03	NWTPH-DX W/CLEANUP	C25	100 PPB	100

BLANK AND DUPLICATE RESULTS

METHOD	BLK RESULT	ASSOC SMPLS
NWTPH-GX (GAS)	ND(<50)	407057-01 TO 03
EPA-8021(BENZENE)	ND(<1)	407057-01 TO 03
EPA-8021(TOLUENE)	ND(<1)	407057-01 TO 03
EPA-8021(ETHYLBENZ)	ND(<1)	407057-01 TO 03
EPA-8021(XYLENE)	ND(<3)	407057-01 TO 03
NWTPH-DX (DSL)	ND(<130)	407057-01 TO 03
NWTPH-DX (OIL)	ND(<250)	407057-01 TO 03
EPA-7060 (TOTAL AS)	ND(<0.005)	407057-01 TO 03
EPA-6010 (TOTAL CR)	ND(<0.007)	407057-01 TO 03
EPA-7421 (TOTAL PB)	ND(<0.003)	407057-01 TO 03
EPA-6010 (TOTAL NI)	ND(<0.02)	407057-01 TO 03
EPA-7060 (DISSOLVED AS)	ND(<0.005)	407057-01 TO 03
EPA-6010 (DISSOLVED CR)	ND(<0.007)	407057-01 TO 03
EPA-7421 (DISSOLVED PB)	ND(<0.003)	407057-01 TO 03
EPA-6010 (DISSOLVED NI)	ND(<0.02)	407057-01 TO 03

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 7/29/04
CCIL JOB #: 407057

DATE RECEIVED: 7/15/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SPIKE/ SPIKE DUPLICATE RESULTS

METHOD	SPIKE ID	ASSOCIATED SAMPLES	SPIKE AMOUNT	DILUTION FACTOR	% SPIKE RECOVERY	% SPIKE DUP RECOVERY	REL % DIFF
NWTPH-GX	GASOLINE	407057-01 TO 03	500 PPB	1	109	103	6
EPA-8021	BENZENE	407057-01 TO 03	20 PPB	1	104	105	1
EPA-8021	TOLUENE	407057-01 TO 03	20 PPB	1	102	103	1
EPA-8021	ETHYLBENZENE	407057-01 TO 03	20 PPB	1	101	102	1
EPA-8021	XYLENE	407057-01 TO 03	60 PPB	1	102	104	2
NWTPH-DX	DIESEL	407057-01 TO 03	1.3 PPM	1	85	88	4
EPA-7060 (TOTAL AS)	ARSENIC	407057-01 TO 03	20 PPB	1	94	95	1
EPA-6010 (TOTAL CR)	CHROME	407057-01 TO 03	1 PPM	1	98	99	1
EPA-7421 (TOTAL PB)	LEAD	407057-01 TO 03	20 PPB	1	108	114	5
EPA-6010 (TOTAL NI)	NICKEL	407057-01 TO 03	1 PPM	1	95	94	1
EPA-7060 (DISSOLVED AS)	ARSENIC	407057-01 TO 03	20 PPB	1	85	82	4
EPA-6010 (DISSOLVED CR)	CHROME	407057-01 TO 03	1 PPM	1	98	99	1
EPA-7421 (DISSOLVED PB)	LEAD	407057-01 TO 03	20 PPB	1	108	114	5
EPA-6010 (DISSOLVED NI)	NICKEL	407057-01 TO 03	1 PPM	1	95	94	1

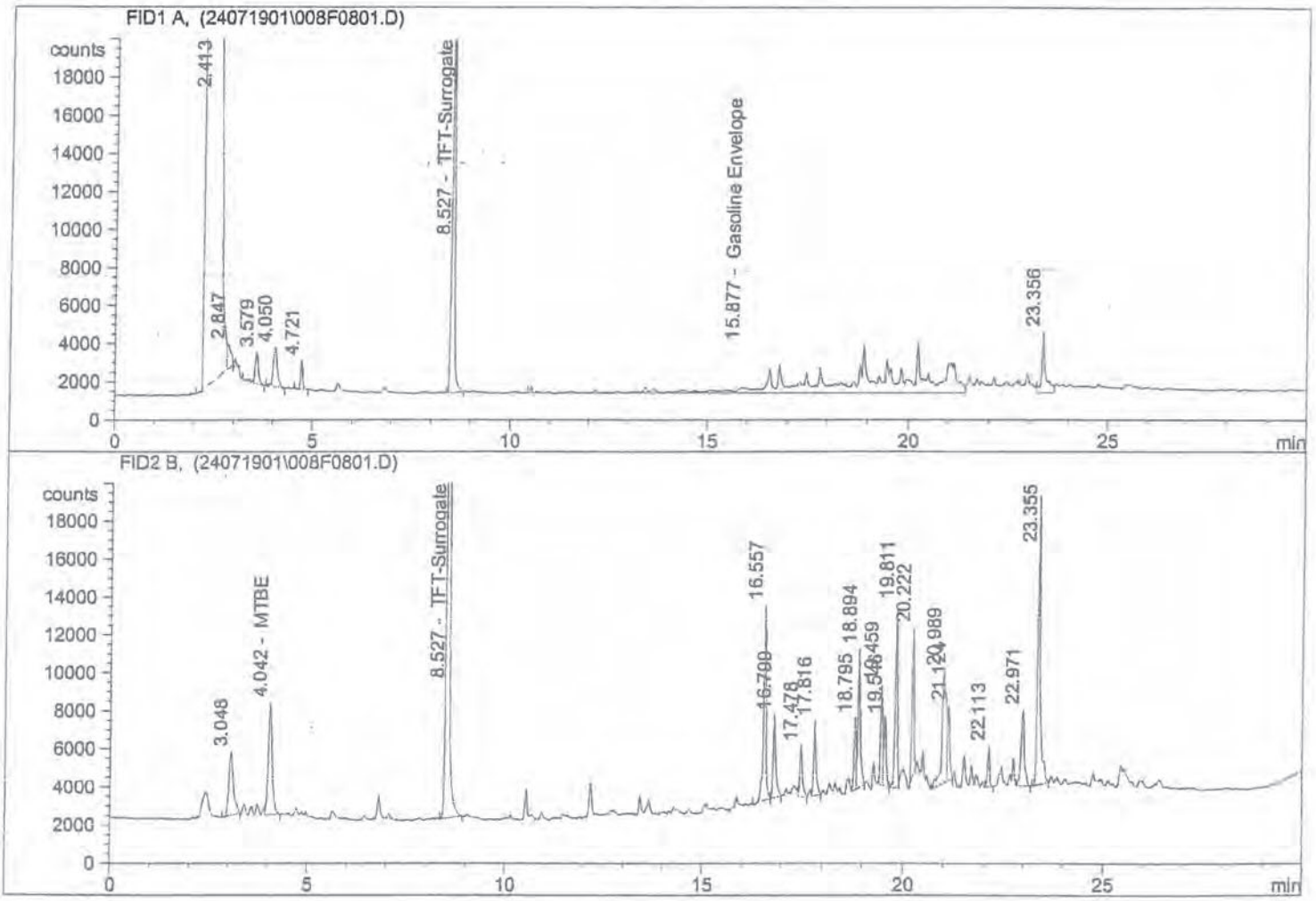
APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

Gas/BTEX Instrument 2
Data File: C:\HPCHEM\2\DATA\24071901\008F0801.D
Injection Date & Time: 7/19/2004 12:55:25 PM
Report Created on: 7/19/2004 2:35:52 PM
Operator: LAH
Aquistion Method: GBTX0604.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0604.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:407057-1 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.527	TFT-Surrogate	110499.734	9.476
15.877	Gasoline Envelope	224788.359	20.053

÷10X100=95%

Gas < 50ug/L

REVIEWED BY & DATE 7/21/04

Ret. Time	Compound Name	Area	Amount ug/L
4.042	MTBE	42577.832	0.996
0.000	Benzene	0.000	0.000
8.527	TFT-Surrogate	299725.594	10.243
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

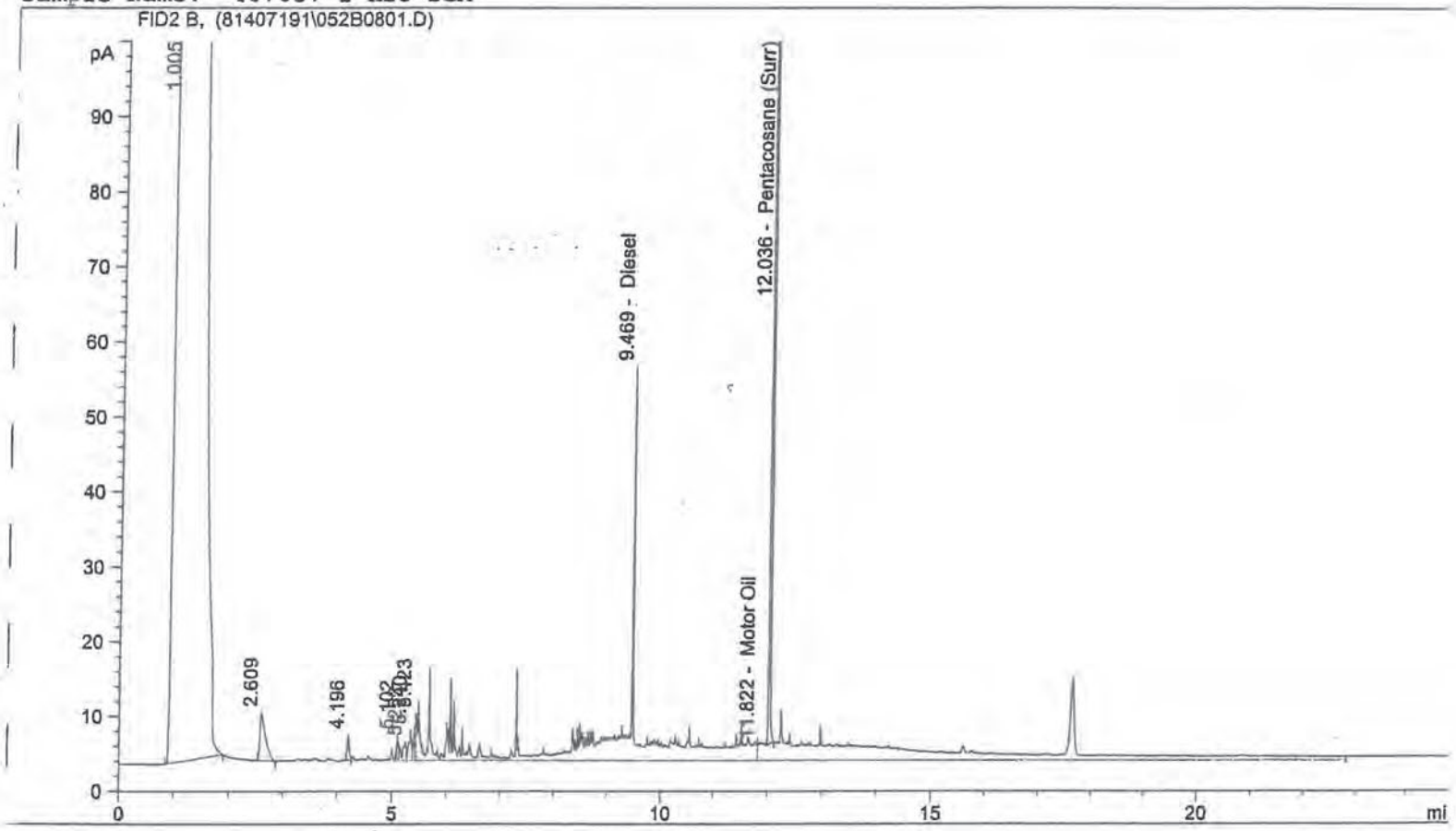
102%

B.T.E < 1ug/L X < 3ug/L

7-19-04LH

Operator: DLC
Method: C:\HPCHEM\1\METHODS\BDMO0104.M
Injection Date & Time: 7/19/04 11:49:54 AM 7/19/04 11:49:54 AM
Report Creation: 7/19/04 1:15:17 PM

Sample Name: 407057-1 H2O SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
9.469	FID2 B,	Diesel	770.657	65.381 *
11.822		Motor Oil	718.317	0.000
12.036		Pentacosane (Surr)	627.499	37.912

$\frac{37.912}{40} \times 100 = 95\%$

* not typical petroleum product pattern

D <0.13 mg/L

MO <0.25 mg/L

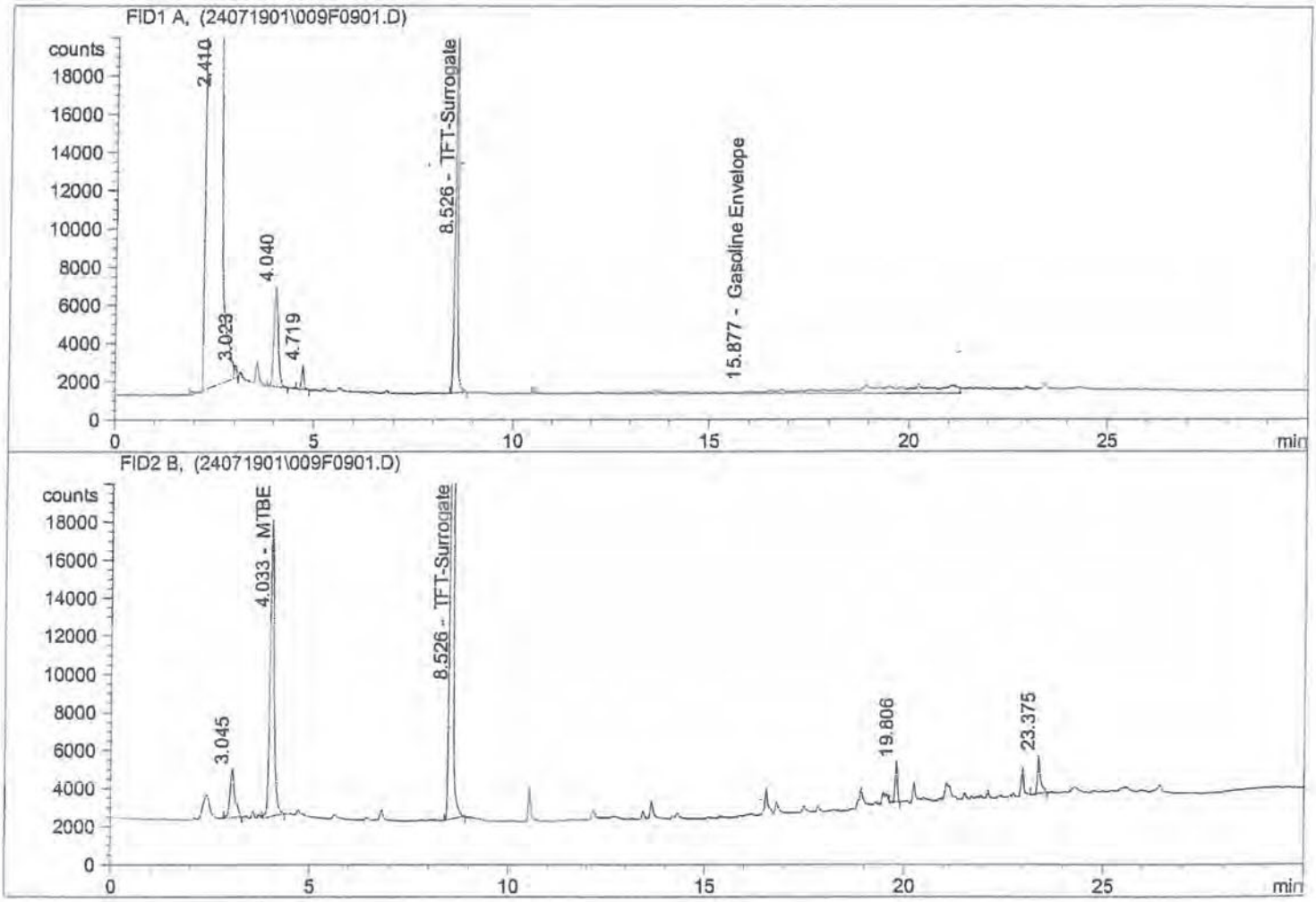
7-19-04 DC

REVIEWED BY & DATE 7/20/04

Gas/BTEX Instrument 2
Data File: C:\HPCHEM\2\DATA\24071901\009F0901.D
Injection Date & Time: 7/19/2004 1:32:10 PM
Report Created on: 7/19/2004 2:36:19 PM
Operator: LAH
Aquistion Method: GBTX0604.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0604.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:407057-2 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.526	TFT-Surrogate	103461.766	8.838 88%
15.877	Gasoline Envelope	84265.352	7.517

Gas < 50 ug/L

REVIEWED BY & DATE 7/21/04

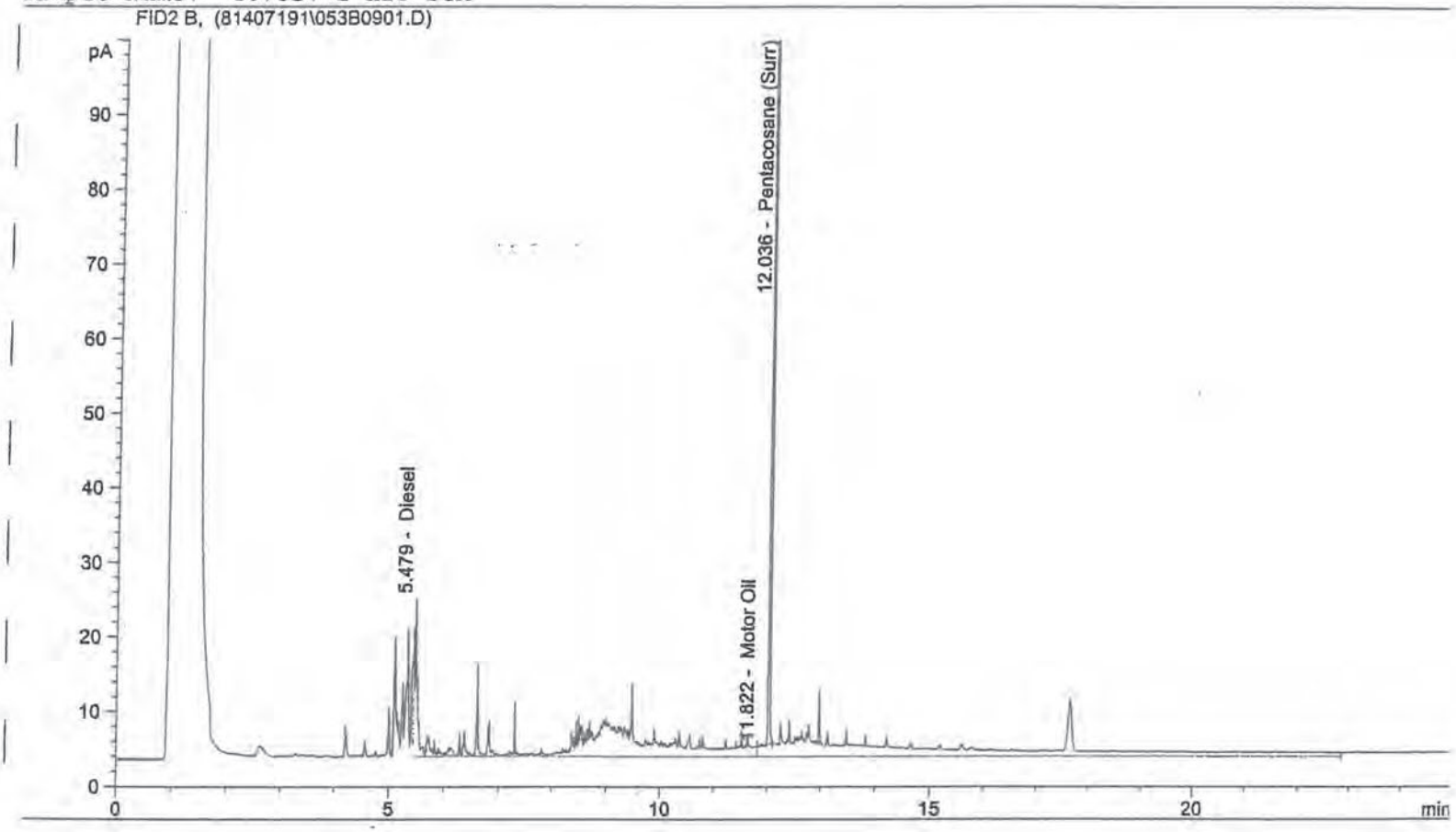
Ret. Time	Compound Name	Area	Amount ug/L
4.033	MTBE	114163.930	2.885
0.000	Benzene	0.000	0.000
8.526	TFT-Surrogate	281708.844	9.623 96%
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

B, T, E < 1 ug/L X < 3 ug/L

7-19-1441H

Operator: DLC
Method: C:\HPCHEM\1\METHODS\BDM00104.M
Injection Date & Time: 7/19/04 12:20:35 PM 7/19/04 12:20:35 PM
Report Creation: 7/19/04 1:16:49 PM

Sample Name: 407057-2 H2O SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
5.479	FID2 B,	Diesel	627.659	55.178*
11.822		Motor Oil	671.982	0.000
12.036		Pentacosane (Surr)	661.977	40.008 100%

* not typical petroleum product pattern

D < 0.13 mg/L

MO < 0.25 mg/L

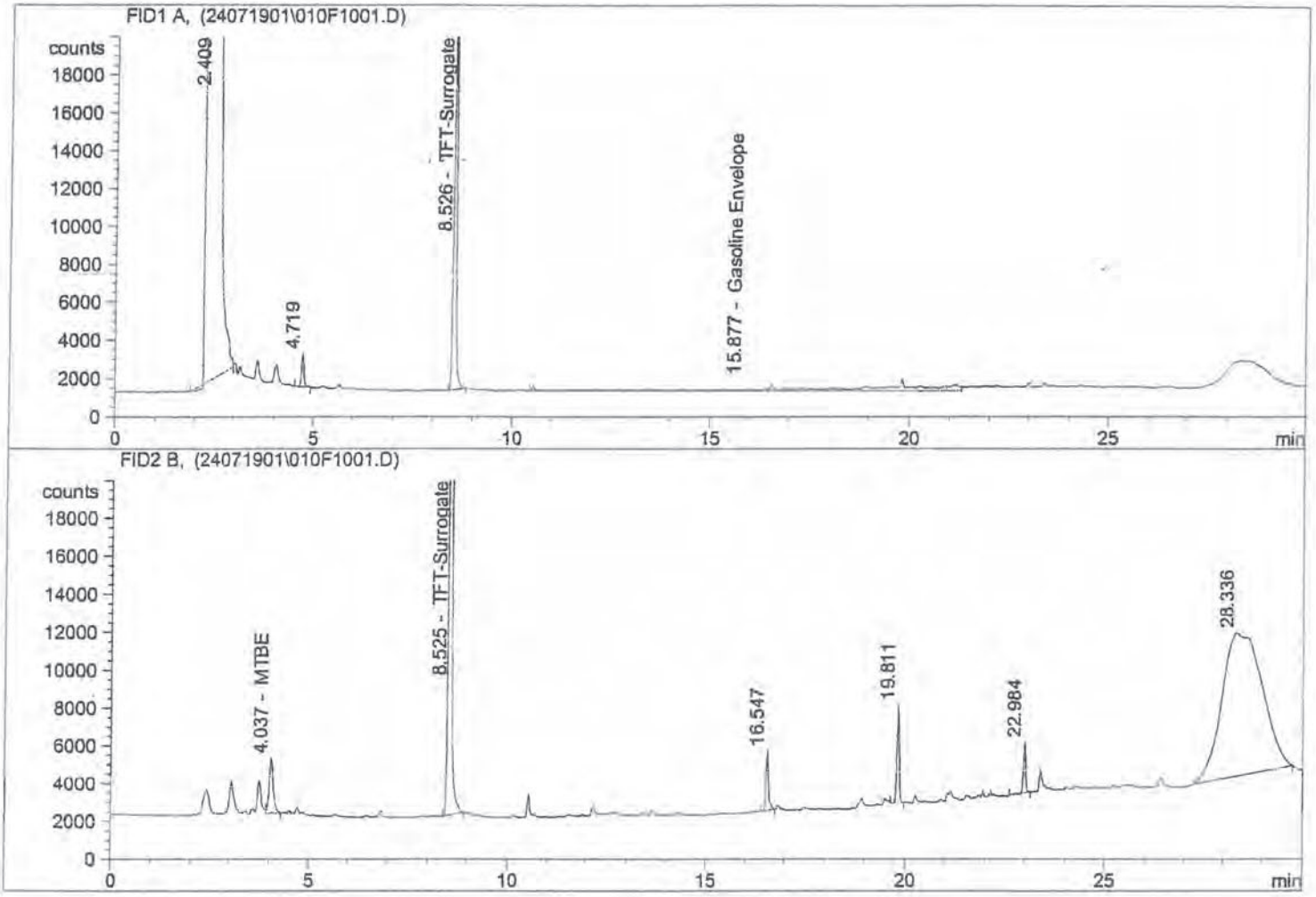
7-19-04 DC

REVIEWED BY & DATE 7.21.04

Gas/BTEX Instrument 2
Data File: C:\HPCHEM\2\DATA\24071901\010F1001.D
Injection Date & Time: 7/19/2004 2:08:59 PM
Report Created on: 7/19/2004 3:47:16 PM
Operator: LAH
Aquistion Method: GBTX0604.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0604.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:407057-3 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.526	TFT-Surrogate	110775.562	9.502
15.877	Gasoline Envelope	68928.852	6.149

95%.

Gas < 50 ug/L

REVIEWED BY & DATE 7/21/04

Ret. Time	Compound Name	Area	Amount ug/L
4.037	MTBE	21761.682	0.509
0.000	Benzene	0.000	0.000
8.525	TFT-Surrogate	300466.844	10.268
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

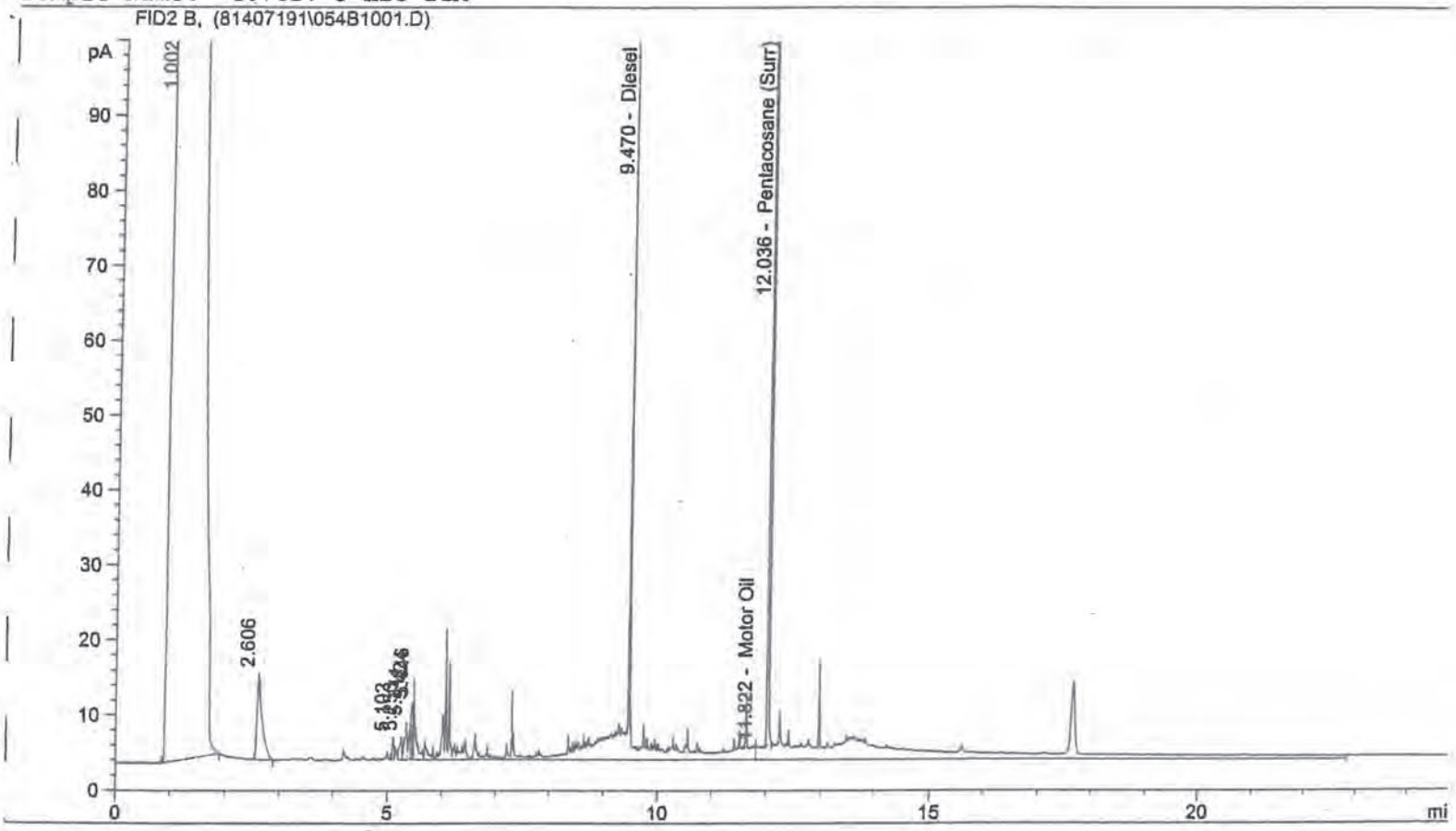
103%.

B, T, E < 1 ug/L X < 3 ug/L

7-19-04 LH

Operator: DLC
Method: C:\HPCHEM\1\METHODS\BDMO0104.M
Injection Date & Time: 7/19/04 12:51:23 PM 7/19/04 12:51:23 PM
Report Creation: 7/19/04 1:17:42 PM

Sample Name: 407057-3 H2O SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
9.470	FID2 B,	Diesel	701.147	60.422 *
11.822		Motor Oil	713.265	0.000
12.036		Pentacosane (Surr)	659.133	39.835 100 %

* not typical petroleum product pattern

D < 0.13 mg/L

MO < 0.25 mg/L

7-19-04 DC

REVIEWED BY 7/21/04
& DATE

Analytical Laboratories, Inc.
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 407057

Date 7/15/04 Page 1 Of 1

PROJECT ID:	5925-003-06
REPORT TO COMPANY:	GeoEngineers, Inc.
PROJECT MANAGER:	Matt Thomas
ADDRESS:	2924 Colby Ave Everett, WA 98201
PHONE:	425.252.4565 FAX: 425.252.4586
P.O. NUMBER:	E-MAIL: mthomas@geoengineers.com
INVOICE TO COMPANY:	
ATTENTION:	
ADDRESS:	

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX w/ Silica gel cleanup	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)							NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
																				Total Metals: As, Cr, Ni, Pb	Dissolved metals: As, Cr, Ni, Pb							
1. MW-20	7/15/04	11:20	W	1		X	X	X												X	X						5	
2. MW-21	7/15/04	11:50	W	2		X	X	X												X	X						5	
3. MW-22	7/15/04	12:20	W	3		X	X	X												X	X						5	
4.																												
5.																												
6.																												
7.																												
8.																												
9.																												
10.																												

LABORATORY COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: GeoEngineers, 7/15/04 15:10
   Received By: Nicole Jones CCIAL 7/15/04 3:10
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | SAME DAY

OTHER:

Specify: Lab filter total & dissolved metals

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 11/24/04
CCIL JOB #: 411029
CCIL SAMPLE #: 1
DATE RECEIVED: 11/5/04
WDOE ACCREDITATION #: C142

RECEIVED
NOV 29 2004
GEO ENGINEERS

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-20 11/4/04 0930

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	11/5/04	LAH
BENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	11/5/04	LAH
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	11/8/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	11/8/04	DLC
TOTAL ARSENIC	EPA-7060	0.020	0.005	1	MG/L	11/23/04	RAB
TOTAL CHROMIUM	EPA-6010	0.076	0.007	1	MG/L	11/23/04	RAB
TOTAL LEAD	EPA-7421	0.068	0.003	2	MG/L	11/23/04	RAB
TOTAL NICKEL	EPA-6010	0.10	0.02	1	MG/L	11/23/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.011	0.005	1	MG/L	11/23/04	RAB
DISSOLVED CHROMIUM	EPA-6010	0.010	0.007	1	MG/L	11/23/04	RAB
DISSOLVED LEAD	EPA-7421	0.017	0.003	1	MG/L	11/23/04	RAB
DISSOLVED NICKEL	EPA-6010	0.02	0.02	1	MG/L	11/23/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 11/24/04
CCIL JOB #: 411029
CCIL SAMPLE #: 2
DATE RECEIVED: 11/5/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-21 11/4/04 1000

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	11/5/04	LAH
BENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	11/5/04	LAH
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	11/8/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	11/8/04	DLC
TOTAL ARSENIC	EPA-7060	0.021	0.005	1	MG/L	11/23/04	RAB
TOTAL CHROMIUM	EPA-6010	0.015	0.007	1	MG/L	11/23/04	RAB
TOTAL LEAD	EPA-7421	0.007	0.003	1	MG/L	11/23/04	RAB
TOTAL NICKEL	EPA-6010	ND	0.02	1	MG/L	11/23/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.021	0.005	1	MG/L	11/23/04	RAB
DISSOLVED CHROMIUM	EPA-6010	0.007	0.007	1	MG/L	11/23/04	RAB
DISSOLVED LEAD	EPA-7421	0.005	0.003	1	MG/L	11/23/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	11/23/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY: 

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 11/24/04
CCIL JOB #: 411029
CCIL SAMPLE #: 3
DATE RECEIVED: 11/5/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-22 11/4/04 1030

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	11/5/04	LAH
BENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	11/5/04	LAH
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	11/8/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	11/8/04	DLC
TOTAL ARSENIC	EPA-7060	0.012	0.005	1	MG/L	11/23/04	RAB
TOTAL CHROMIUM	EPA-6010	0.022	0.007	1	MG/L	11/23/04	RAB
TOTAL LEAD	EPA-7421	0.017	0.003	1	MG/L	11/23/04	RAB
TOTAL NICKEL	EPA-6010	0.02	0.02	1	MG/L	11/23/04	RAB
DISSOLVED ARSENIC	EPA-7060	0.010	0.005	1	MG/L	11/23/04	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	11/23/04	RAB
DISSOLVED LEAD	EPA-7421	0.014	0.003	1	MG/L	11/23/04	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	11/23/04	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA

DATE: 11/12/04
CCIL JOB #: 411029
CCIL SAMPLE #: 4
DATE RECEIVED: 11/5/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: PURGE 110404 11/4/04 1100

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
BENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
TOLUENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	11/5/04	LAH
XYLENES	EPA-8021	ND	3	1	UG/L	11/5/04	LAH
TOTAL FATS, OILS, GREASES	EPA-1664	ND	5	1	MG/L	11/9/04	HJK

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 11/24/04
CCIL JOB #: 411029

DATE RECEIVED: 11/5/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	SPIKE AMOUNT	% RECV
411029-01	NWTPH-GX	TFT	10 PPB	109
411029-01	EPA-8021	TFT	10 PPB	112
411029-01	NWTPH-DX	C25	100 PPB	59
411029-02	NWTPH-GX	TFT	0.5PPM	108
411029-02	EPA-8021	TFT	0.5PPM	111
411029-02	NWTPH-DX	C25	10 PPM	90
411029-03	NWTPH-GX	TFT	0.5PPM	104
411029-03	EPA-8021	TFT	0.5PPM	109
411029-03	NWTPH-DX	C25	10 PPM	87
411029-04	EPA-8021	TFT	0.5PPM	109

BLANK AND DUPLICATE RESULTS

METHOD	BLK RESULT	ASSOC SMPLS
NWTPH-GX (GAS)	ND(<50)	411029-01 TO 03
EPA-8021(BENZENE)	ND(<1)	411029-01 TO 04
EPA-8021(TOLUENE)	ND(<1)	411029-01 TO 03
EPA-8021(ETHYLBENZ)	ND(<1)	411029-01 TO 03
EPA-8021(XYLENE)	ND(<3)	411029-01 TO 03
NWTPH-DX (DSL)	ND(<130)	411029-01 TO 03
NWTPH-DX (OIL)	ND(<250)	411029-01 TO 03
EPA-1664	ND(<5)	411029-04
EPA-7060 (TOTAL AS)	ND(<0.005)	411029-01 TO 03
EPA-6010 (TOTAL CR)	ND(<0.007)	411029-01 TO 03
EPA-7421 (TOTAL PB)	ND(<0.003)	411029-01 TO 03
EPA-6010 (TOTAL NI)	ND(<0.02)	411029-01 TO 03
EPA-7060 (DISS. AS)	ND(<0.005)	411029-01 TO 03
EPA-6010 (DISS. CR)	ND(<0.007)	411029-01 TO 03
EPA-7421 (DISS. PB)	ND(<0.003)	411029-01 TO 03
EPA-6010 (DISS. NI)	ND(<0.02)	411029-01 TO 03

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 11/24/04
CCIL JOB #: 411029

DATE RECEIVED: 11/5/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SPIKE/ SPIKE DUPLICATE RESULTS

METHOD	SPIKE ID	ASSOCIATED SAMPLES	SPIKE AMOUNT	DILUTION FACTOR	% SPIKE RECOVERY	% SPIKE DUP RECOVERY	REL % DIFF
EPA-8021	GASOLINE	411029-01 TO 03	500 PPB	1	112	107	5
EPA-8021	BENZENE	411029-01 TO 04	20 PPB	1	107	101	6
EPA-8021	TOLUENE	411029-01 TO 03	20 PPB	1	107	102	5
EPA-8021	ETHYLBENZENE	411029-01 TO 03	20 PPB	1	106	100	6
EPA-8021	XYLENE	411029-01 TO 03	60 PPB	1	106	101	5
NWTPH-DX	DIESEL	411029-01 TO 03	2.5 PPM	1	96	88	9
EPA-1664	MOTOR OIL	411029-04	40 PPM	1	97	N/A	N/A
EPA-7060 (TOTAL AS)	ARSENIC	411029-01 TO 03	20PPB	1	92	96	4
EPA-6010 (TOTAL CR)	CHROME	411029-01 TO 03	1PPM	1	101	101	0
EPA-7421 (TOTAL PB)	LEAD	411029-01 TO 03	20PPB	1	97	105	8
EPA-6010 (TOTAL NI)	NICKEL	411029-01 TO 03	1PPM	1	106	106	0
EPA-7060 (DISS. AS)	ARSENIC	411029-01 TO 03	20PPB	1	92	96	4
EPA-6010 (DISS. CR)	CHROME	411029-01 TO 03	1PPM	1	101	101	0
EPA-7421 (DISS. PB)	LEAD	411029-01 TO 03	20PPB	1	97	105	8
EPA-6010 (DISS. NI)	NICKEL	411029-01 TO 03	1PPM	1	106	106	0

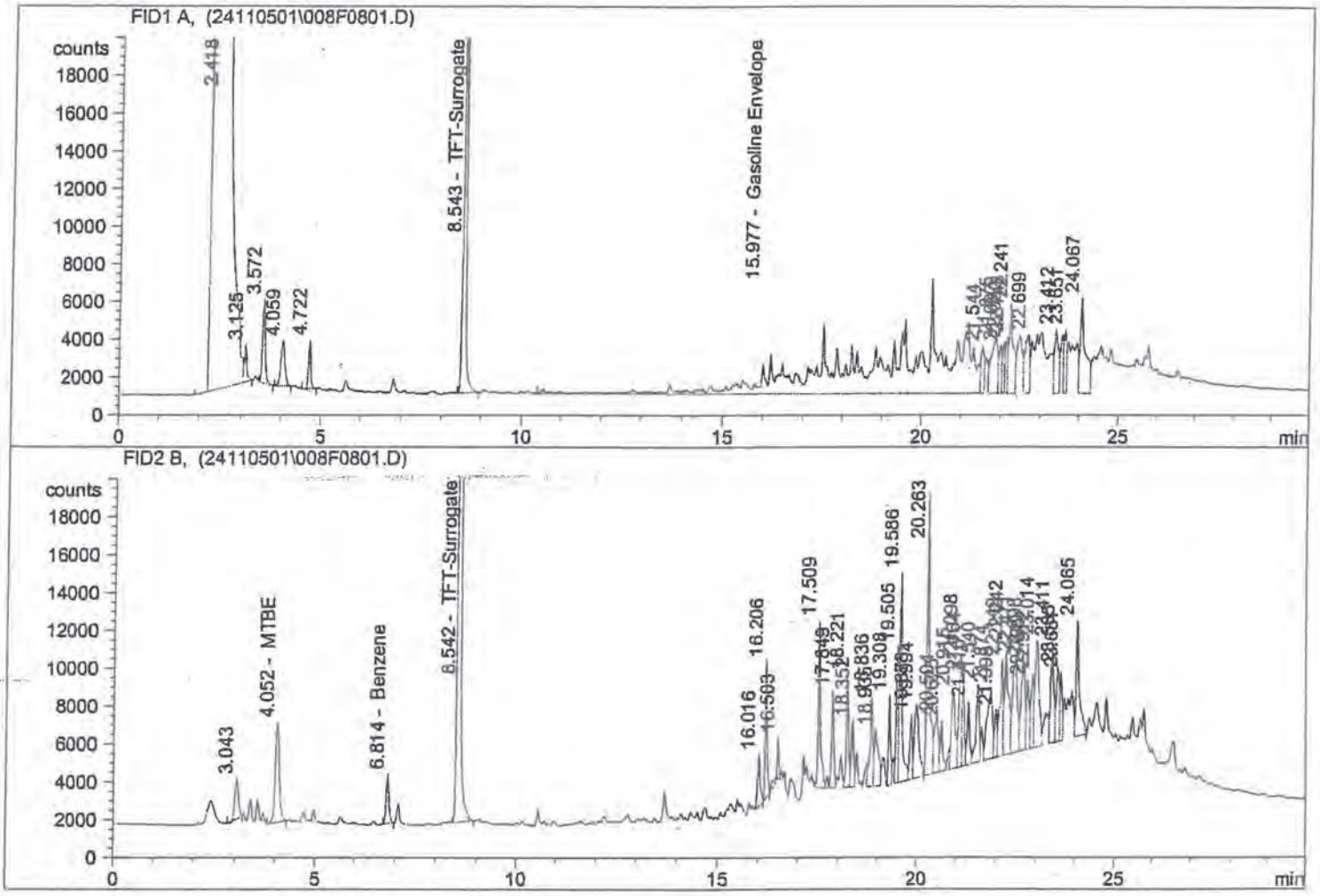
APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

Data File: C:\HPCHEM\2\DATA\24110501\008F0801.D
Injection Date & Time: 11/5/2004 5:05:24 PM
Report Created on: 11/8/2004 9:26:25 AM
Operator: LAH
Aquistion Method: GBTX0904.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0904.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:411029-1 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.543	TFT-Surrogate	126276.422	10.908 109%
15.977	Gasoline Envelope	560278.250	49.982

Gas = 50 ug/L

REVIEWED BY RB
& DATE 11/9/04

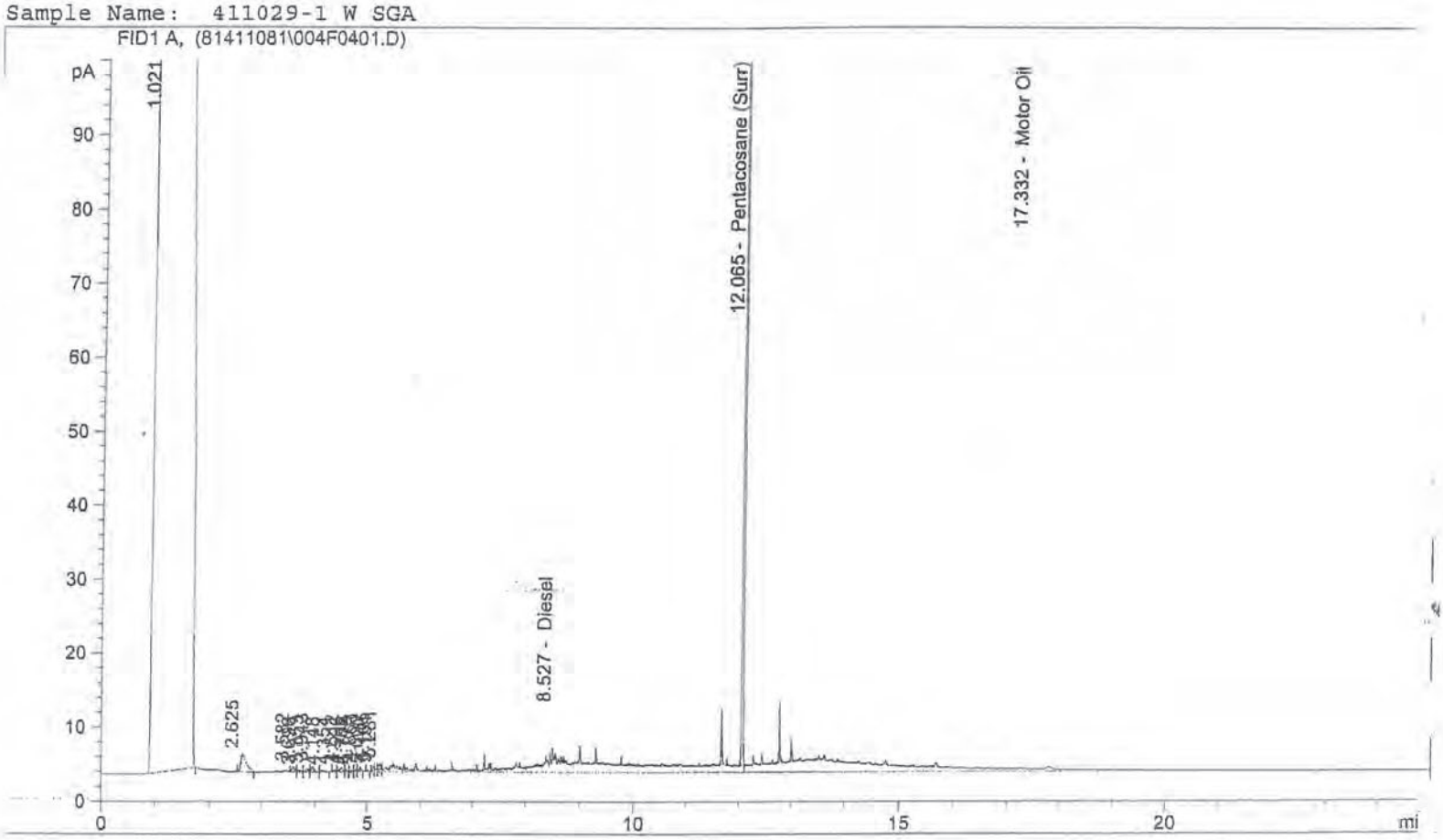
Ret. Time	Compound Name	Area	Amount ug/L
4.052	MTBE	38512.734	0.883
6.814	Benzene	12852.155	0.000
8.542	TFT-Surrogate	269913.906	11.241 112%
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

B, T, E < 1 ug/L X < 3 ug/L

11-8-04 LH

Operator: DLC
Method: C:\HPCHEM\1\METHODS\FDMO1004.M
Injection Date & Time: 11/8/04 10:04:10 AM 11/8/04 10:04:10 AM
Report Creation: 11/8/04 11:17:31 AM

Sample Name: 411029-1 W SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.527	FID1 A,	Diesel	322.785	19.537
12.065		Pentacosane (Surr)	384.697	23.433 ÷40x100=59%
17.332		Motor Oil	394.433	0.000

D < 0.13mg/L
MO < 0.25mg/L

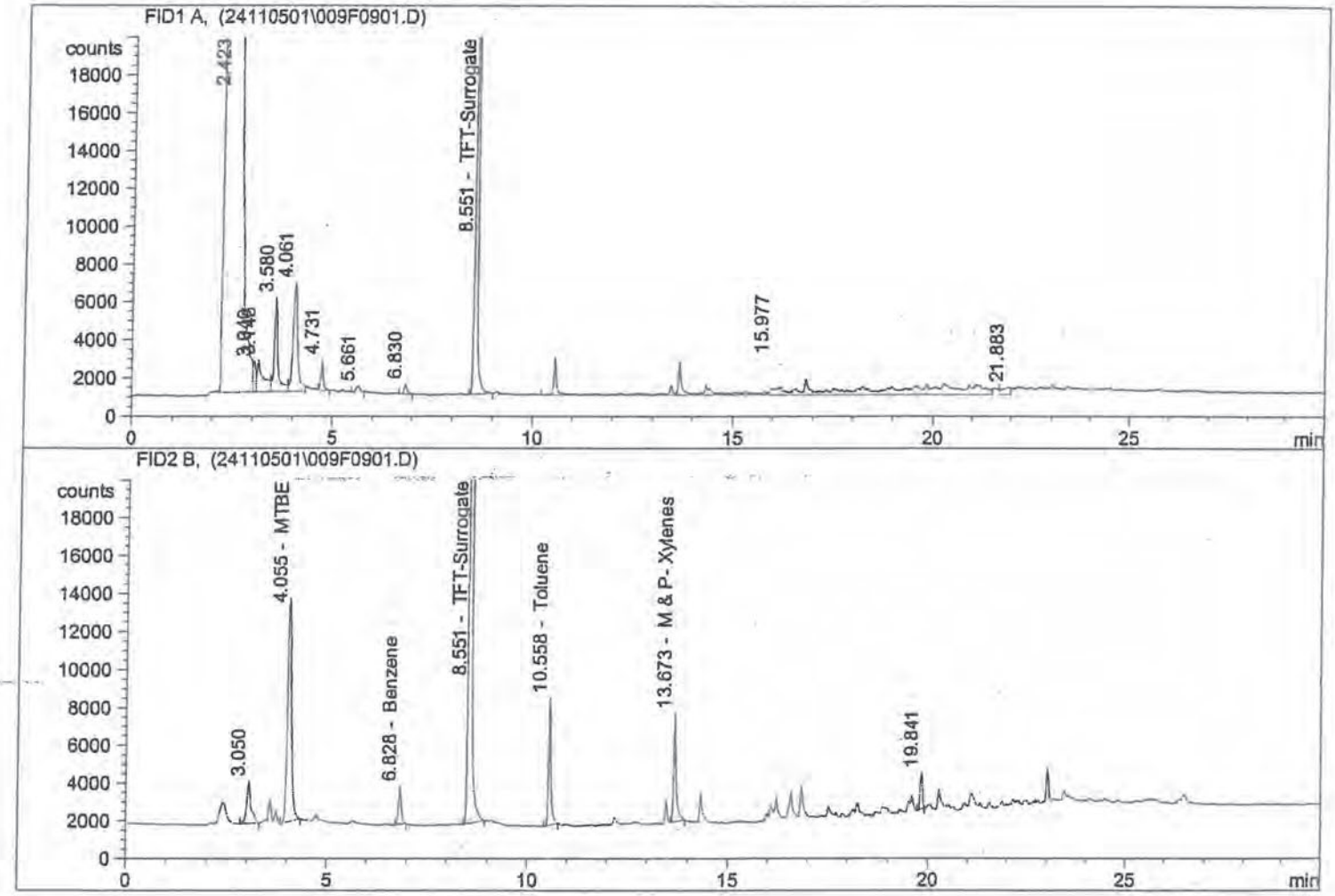
11-8-04 DC

REVIEWED BY RB
& DATE 11/9/04

Data File: C:\HPCHEM\2\DATA\24110501\009F0901.D
Injection Date & Time: 11/5/2004 5:41:24 PM
Report Created on: 11/8/2004 9:13:00 AM
Operator: LAH
Aquistion Method: GBTX0904.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0904.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:411029-2 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.551	TFT-Surrogate	124536.859	10.750
0.000	Gasoline Envelope	0.000	0.000

108%

Gas <50 ug/L

REVIEWED BY & DATE 11/9/04

Ret. Time	Compound Name	Area	Amount ug/L
4.055	MTBE	87164.008	1.999
6.828	Benzene	10128.031	0.000
8.551	TFT-Surrogate	265437.250	11.052
10.558	Toluene	28611.777	0.081
0.000	Ethylbenzene	0.000	0.000
13.673	M & P- Xylenes	28765.363	0.000
0.000	O-Xylene	0.000	0.000

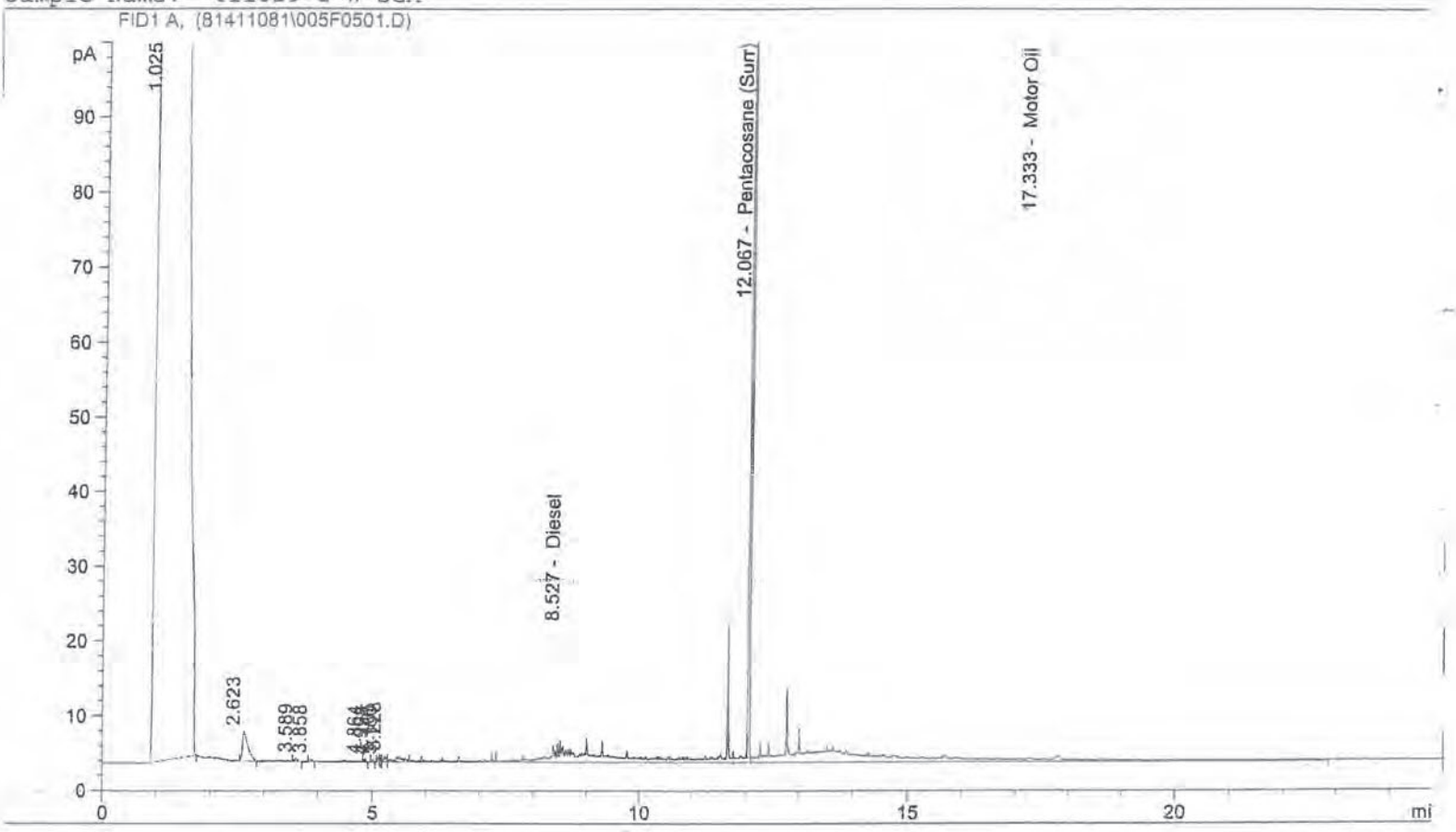
110%

B, T, E < 1 ug/L X < 3 ug/L

11-8-04 LH

Operator: DLC
Method: C:\HPCHEM\1\METHODS\FDMO1004.M
Injection Date & Time: 11/8/04 10:34:37 AM 11/8/04 10:34:37 AM
Report Creation: 11/8/04 11:17:53 AM

Sample Name: 411029-2 W SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.527	FID1 A,	Diesel	217.122	10.783
12.067		Pentacosane (Surr)	590.229	35.913 90%
17.333		Motor Oil	327.667	0.000

D < 0.13 mg/L

MO < 0.25 mg/L

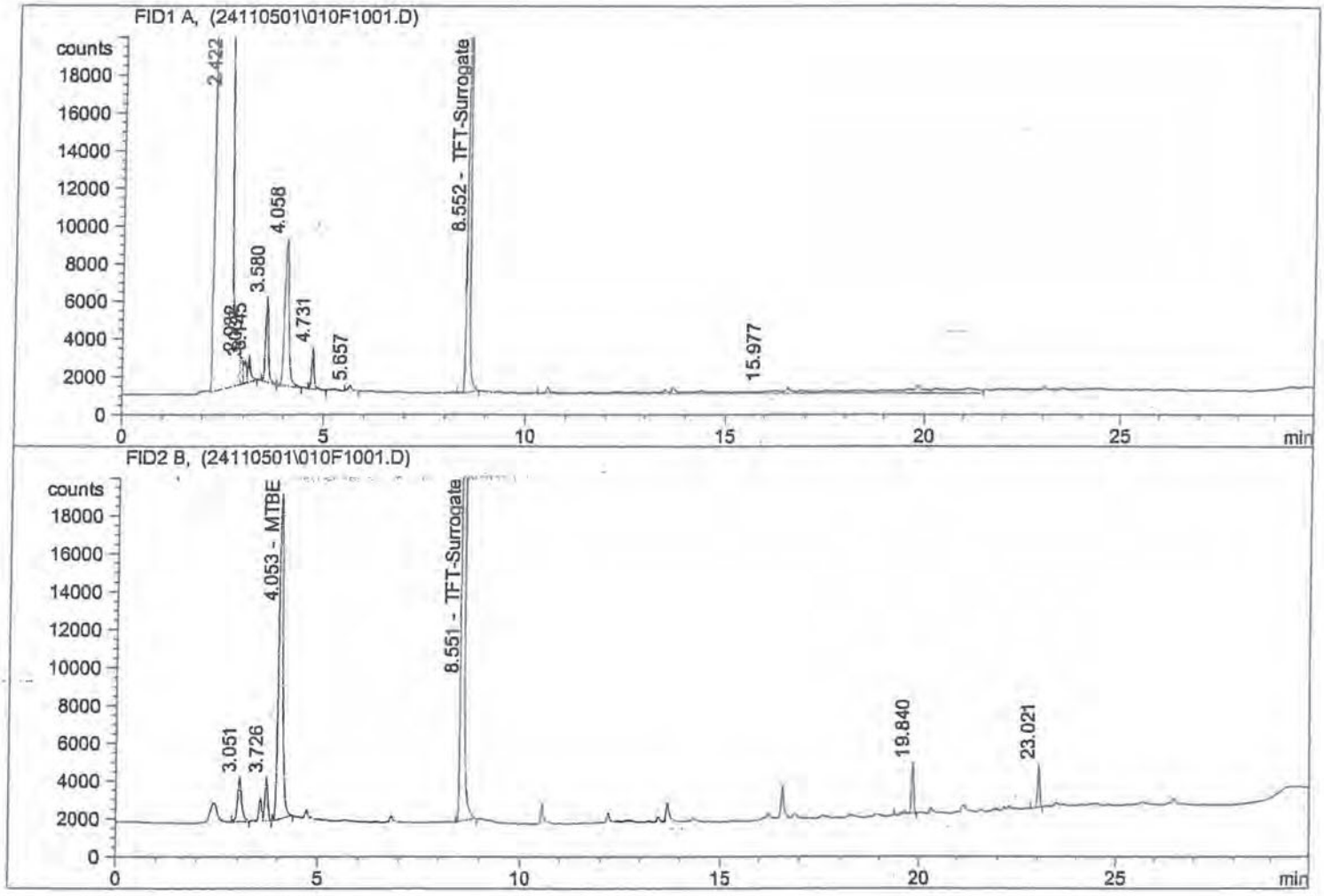
11-8-04 DC

REVIEWED BY RB
& DATE 11/9/04

Data File: C:\HPCHEM\2\DATA\24110501\010F1001.D
Injection Date & Time: 11/5/2004 6:17:25 PM
Report Created on: 11/8/2004 9:13:11 AM
Operator: LAH
Aquistion Method: GBTX0904.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0904.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:411029-3 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.552	TFT-Surrogate	120780.664	10.409
0.000	Gasoline Envelope	0.000	0.000

104%

Gas < 50ug/L

REVIEWED BY RD
& DATE 11/9/04

Ret. Time	Compound Name	Area	Amount ug/L
4.053	MTBE	125223.984	3.325
0.000	Benzene	0.000	0.000
8.551	TFT-Surrogate	261005.406	10.864
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

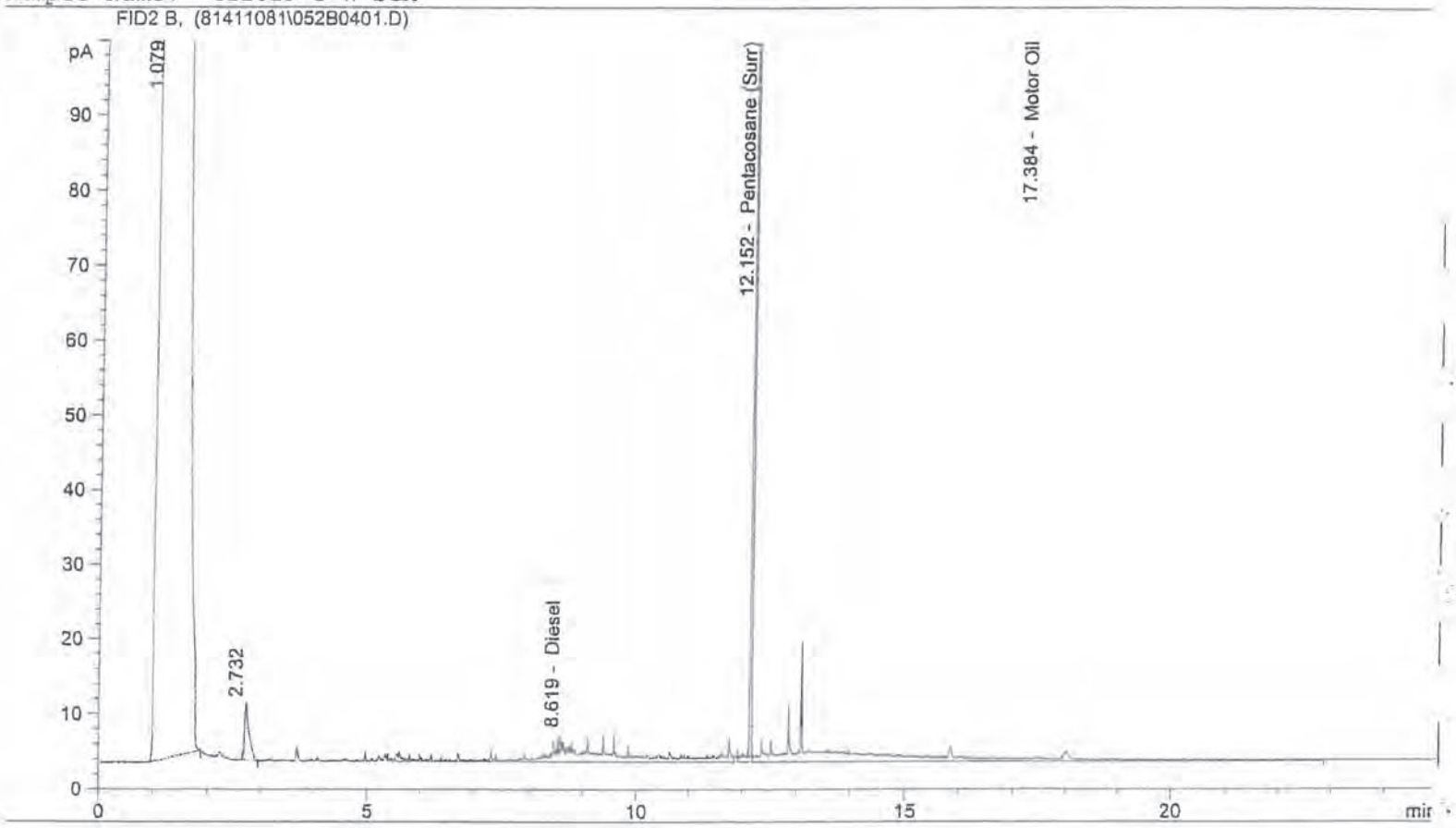
109%

B, T, E < 1ug/L X < 3ug/L

11-8-04 LH

Instrument #01 Data File: C:\HPCHEM\1\DATA\81411081\052B0401.D
Operator: DLC
Method: C:\HPCHEM\1\METHODS\BDMO1004.M
Injection Date & Time: 11/8/04 10:04:10 AM 11/8/04 10:04:10 AM
Report Creation: 11/8/04 11:18:18 AM

Sample Name: 411029-3 W SGA



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
8.619	FID2 B,	Diesel	239.041	25.835	
12.152		Pentacosane (Surr)	610.148	34.868	87%
17.384		Motor Oil	353.066	0.000	

D < 0.13 mg/L

MO < 0.25 mg/L

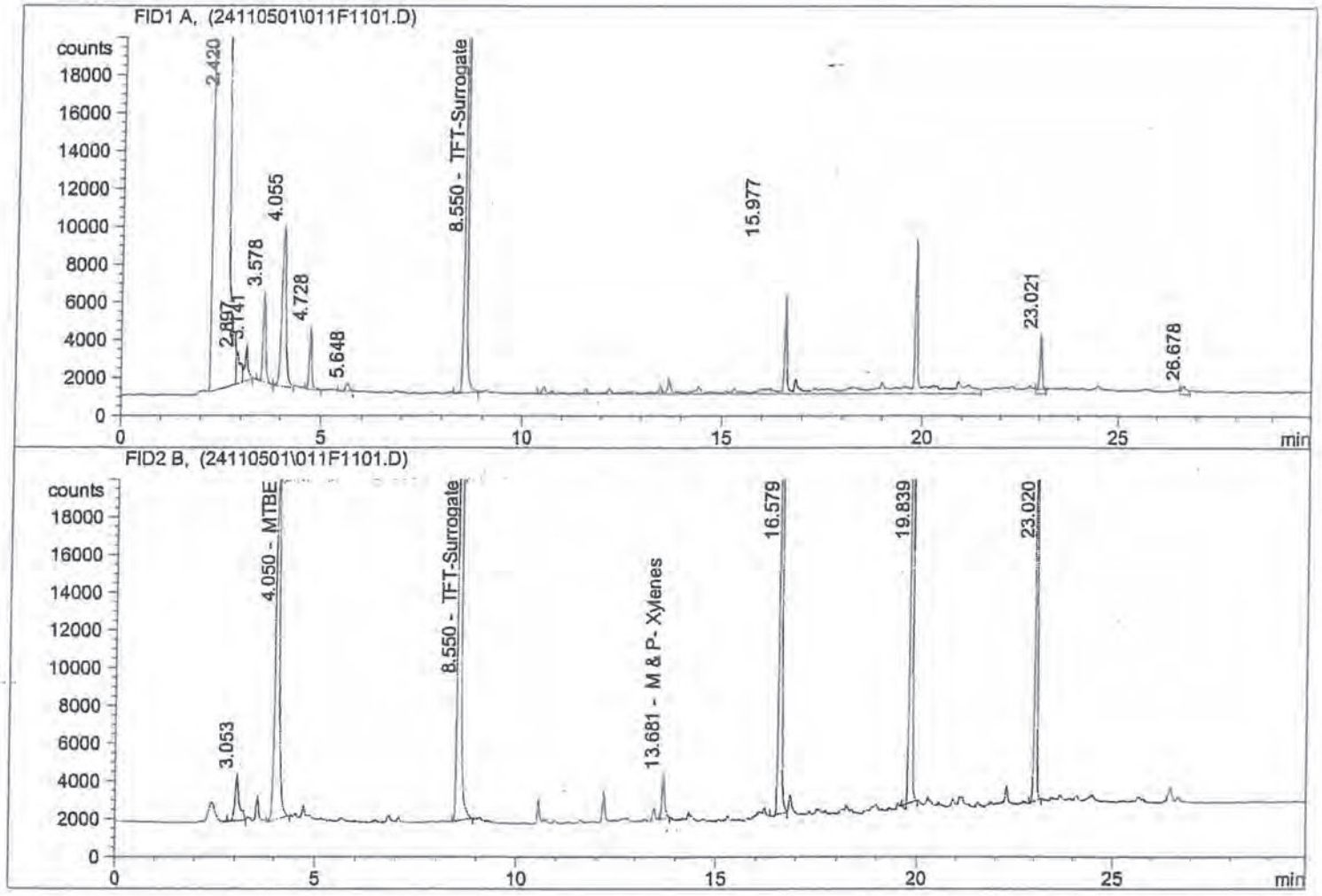
11-8-04 DC

REVIEWED BY KB
& DATE 11/9/04

Data File: C:\HPCHEM\2\DATA\24110501\011F1101.D
Injection Date & Time: 11/5/2004 6:53:26 PM
Report Created on: 11/8/2004 9:13:21 AM
Operator: LAH
Aquistion Method: GBTX0904.M
Analysis Method: C:\HPCHEM\2\METHODS\GBTX0904.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:411029-4 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.550	TFT-Surrogate	122729.547	10.586
0.000	Gasoline Envelope	0.000	0.000

104%

Gas <50 ug/L

REVIEWED BY RB
& DATE 11/9/04

Ret. Time	Compound Name	Area	Amount ug/L
4.050	MTBE	137255.688	3.744
0.000	Benzene	0.000	0.000
8.550	TFT-Surrogate	262923.375	10.945
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
13.681	M & P- Xylenes	12229.278	0.000
0.000	O-Xylene	0.000	0.000

109%

B,T,E <1 ug/L X <3 ug/L

11-8-04 LH

8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 1-4-04 Page 1 Of 1

PROJECT ID: 5525-003-06
REPORT TO COMPANY: GEOENGINEERS
PROJECT MANAGER: MATT THOMAS
ADDRESS: 2524 COLBY AVE EVERETT, WA 98201
PHONE: 252-4565 FAX: 252-4586
P.O. NUMBER:
E-MAIL:
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

	SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX (w/SGCU & SULFU ACID)	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021☐ EPA-8260☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260☐ EPA-504.1☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5☐ RCRA-8 ☐ Pri Pol☐ TAL ☐	Metals Other (Specify)	TCLP-Metals☐ VOA☐ Semi-Vol☐ Pest☐ Herbs☐	OTHER (Specify): TOTAL METALS (As, Cr, Ni, Pb)	DISSOLVED METALS (As, Cr, Ni, Pb)	By EPA-6000+7000	FOG EPA 413.2			NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1.	MW-20	11-4-04	0930	W	1		X	X	X												X	X						
2.	MW-21		1000	W	2		X	X	X												X	X						
3.	MW-22		1030	W	3		X	X	X												X	X						
4.	PURGE 110404		1100	W	4				X															X				
5.																												
6.																												
7.																												
8.																												
9.																												
10.																												

SPECIAL INSTRUCTIONS: Note – Dissolved metals were not field filtered – placed in Preserved Bottles – Filter in lab ASAP OR

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: [signature] 11-5-04 0705
   Received By: [signature] CCIAL 11-5-04 0705
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: ☒ 10 (Standard) ☐ 5 ☐ 3 ☐ 2 ☐ 1 ☐ SAME DAY

Fuels & Hydrocarbon Analysis: ☒ 5 (Standard) ☐ 3 ☐ 1 ☐ SAME DAY

OTHER:
Specify: LAB FILTER DIS. METALS

* Turnaround request less than standard may incur Rush Charges

REPORT COPY

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 1/27/05
CCIL JOB #: 501065
CCIL SAMPLE #: 1
DATE RECEIVED: 1/19/05
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-20 1/19/05 12:40

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	1/20/05	LAP
BENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
TOLUENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
XYLENES	EPA-8021	ND	3	1	UG/L	1/20/05	LAP
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	1/21/05	EBS
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	1/21/05	EBS
TOTAL ARSENIC	EPA-7060	0.015	0.005	1	MG/L	1/25/05	RAB
TOTAL CHROMIUM	EPA-6010	0.045	0.007	1	MG/L	1/26/05	RAB
TOTAL LEAD	EPA-7421	0.020	0.003	1	MG/L	1/21/05	RAB
TOTAL NICKEL	EPA-6010	0.02	0.02	1	MG/L	1/26/05	RAB
DISSOLVED ARSENIC	EPA-7060	0.010	0.005	1	MG/L	1/25/05	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	1/26/05	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	1/21/05	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	1/26/05	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

RECEIVED
JAN 31 2005
GEO ENGINEERS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 1/27/05
CCIL JOB #: 501065
CCIL SAMPLE #: 2
DATE RECEIVED: 1/19/05
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-21 1/19/05 13:40

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	1/20/05	LAP
BENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
TOLUENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
XYLENES	EPA-8021	ND	3	1	UG/L	1/20/05	LAP
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	1/21/05	EBS
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	1/21/05	EBS
TOTAL ARSENIC	EPA-7060	0.050	0.005	1	MG/L	1/25/05	RAB
TOTAL CHROMIUM	EPA-6010	ND	0.007	1	MG/L	1/26/05	RAB
TOTAL LEAD	EPA-7421	0.003	0.003	1	MG/L	1/21/05	RAB
TOTAL NICKEL	EPA-6010	ND	0.02	1	MG/L	1/26/05	RAB
DISSOLVED ARSENIC	EPA-7060	0.015	0.005	1	MG/L	1/25/05	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	1/26/05	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	1/21/05	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	1/26/05	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 1/27/05
CCIL JOB #: 501065
CCIL SAMPLE #: 3
DATE RECEIVED: 1/19/05
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: MW-22 1/19/05 14:40

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	50	1	UG/L	1/20/05	LAP
BENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
TOLUENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
XYLENES	EPA-8021	ND	3	1	UG/L	1/20/05	LAP
TPH-DIESEL RANGE	NWTPH-DX W/CLEANUP	ND	130	1	UG/L	1/21/05	EBS
TPH-LUBE OIL RANGE	NWTPH-DX W/CLEANUP	ND	250	1	UG/L	1/21/05	EBS
TOTAL ARSENIC	EPA-7060	0.006	0.005	1	MG/L	1/25/05	RAB
TOTAL CHROMIUM	EPA-6010	0.010	0.007	1	MG/L	1/26/05	RAB
TOTAL LEAD	EPA-7421	0.017	0.003	1	MG/L	1/21/05	RAB
TOTAL NICKEL	EPA-6010	0.03	0.02	1	MG/L	1/26/05	RAB
DISSOLVED ARSENIC	EPA-7060	ND	0.005	1	MG/L	1/25/05	RAB
DISSOLVED CHROMIUM	EPA-6010	ND	0.007	1	MG/L	1/26/05	RAB
DISSOLVED LEAD	EPA-7421	ND	0.003	1	MG/L	1/21/05	RAB
DISSOLVED NICKEL	EPA-6010	ND	0.02	1	MG/L	1/26/05	RAB

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 1/27/05
CCIL JOB #: 501065
CCIL SAMPLE #: 4
DATE RECEIVED: 1/19/05
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06
CLIENT SAMPLE ID: PURGE 011905 1/19/05 15:00

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
BENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
TOLUENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
ETHYLBENZENE	EPA-8021	ND	1	1	UG/L	1/20/05	LAP
XYLENES	EPA-8021	ND	3	1	UG/L	1/20/05	LAP
TOTAL FATS, OILS, GREASES	EPA-1664	ND	5	1	MG/L	1/21/05	HJK

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 1/27/05
CCIL JOB #: 501065

DATE RECEIVED: 1/19/05
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	SPIKE AMOUNT	% RECV
501065-01	NWTPH-GX	TFT	10 PPB	90
501065-01	EPA-8021	TFT	10 PPB	102
501065-01	NWTPH-DX W/CLEANUP	C25	0.1 PPM	94
501065-02	NWTPH-GX	TFT	10 PPB	95
501065-02	EPA-8021	TFT	10 PPB	101
501065-02	NWTPH-DX W/CLEANUP	C25	0.1 PPM	95
501065-03	NWTPH-GX	TFT	10 PPB	91
501065-03	EPA-8021	TFT	10 PPB	101
501065-03	NWTPH-DX W/CLEANUP	C25	0.1 PPM	94
501065-04	EPA-8021	TFT	10 PPB	101

BLANK AND DUPLICATE RESULTS

METHOD	BLK RESULT	ASSOC SMPLS
NWTPH-GX (GAS)	ND(<50)	501065-01 TO 03
EPA-8021(BENZENE)	ND(<1)	501065-01 TO 04
EPA-8021(TOLUENE)	ND(<1)	501065-01 TO 04
EPA-8021(ETHYLBENZ)	ND(<1)	501065-01 TO 04
EPA-8021(XYLENE)	ND(<3)	501065-01 TO 04
NWTPH-DX (DSL)	ND(<130)	501065-01 TO 03
NWTPH-DX (OIL)	ND(<250)	501065-01 TO 03
EPA-7060 (TOTAL AS)	ND(<0.005)	501065-01 TO 03
EPA-6010 (TOTAL CR)	ND(<0.007)	501065-01 TO 03
EPA-7421 (TOTAL PB)	ND(<0.003)	501065-01 TO 03
EPA-6010 (TOTAL NI)	ND(<0.02)	501065-01 TO 03
EPA-7060 (DISS. AS)	ND(<0.005)	501065-01 TO 03
EPA-6010 (DISS. CR)	ND(<0.007)	501065-01 TO 03
EPA-7421 (DISS. PB)	ND(<0.003)	501065-01 TO 03
EPA-6010 (DISS. NI)	ND(<0.02)	501065-01 TO 03
EPA-1664	ND(<5)	501065-04

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
2924 COLBY AVE.
EVERETT, WA 98201

DATE: 1/27/05
CCIL JOB #: 501065

DATE RECEIVED: 1/19/05
WDOE ACCREDITATION #: C142

CLIENT CONTACT: MATT THOMAS

CLIENT PROJECT ID: 5925-003-06

QUALITY CONTROL RESULTS

SPIKE/ SPIKE DUPLICATE RESULTS

METHOD	SPIKE ID	ASSOCIATED SAMPLES	SPIKE AMOUNT	DILUTION FACTOR	% SPIKE RECOVERY	% SPIKE DUP RECOVERY	REL % DIFF
EPA-8021	GASOLINE	501065-01 TO 03	500 PPB	1	95	94	1
EPA-8021	BENZENE	501065-01 TO 04	20 PPB	1	112	113	1
EPA-8021	TOLUENE	501065-01 TO 04	20 PPB	1	111	113	2
EPA-8021	ETHYLBENZENE	501065-01 TO 04	20 PPB	1	109	110	1
EPA-8021	XYLENE	501065-01 TO 04	60 PPB	1	111	111	0
NWTPH-DX	DIESEL	501065-01 TO 03	1.3 PPM	1	90	94	4
EPA-7060 (TOTAL AS)	ARSENIC	411029-01 TO 03	20PPB	1	97	102	5
EPA-6010 (TOTAL CR)	CHROME	411029-01 TO 03	1PPM	1	100	102	2
EPA-7421 (TOTAL PB)	LEAD	411029-01 TO 03	20PPB	1	104	104	0
EPA-6010 (TOTAL NI)	NICKEL	411029-01 TO 03	1PPM	1	99	101	2
EPA-7060 (DISS. AS)	ARSENIC	411029-01 TO 03	20PPB	1	97	102	5
EPA-6010 (DISS. CR)	CHROME	411029-01 TO 03	1PPM	1	100	102	2
EPA-7421 (DISS. PB)	LEAD	411029-01 TO 03	20PPB	1	104	104	0
EPA-6010 (DISS. NI)	NICKEL	411029-01 TO 03	1PPM	1	99	101	2
EPA-1664	MOTOR OIL	501065-04	40 PPM	1	94	N/A	N/A

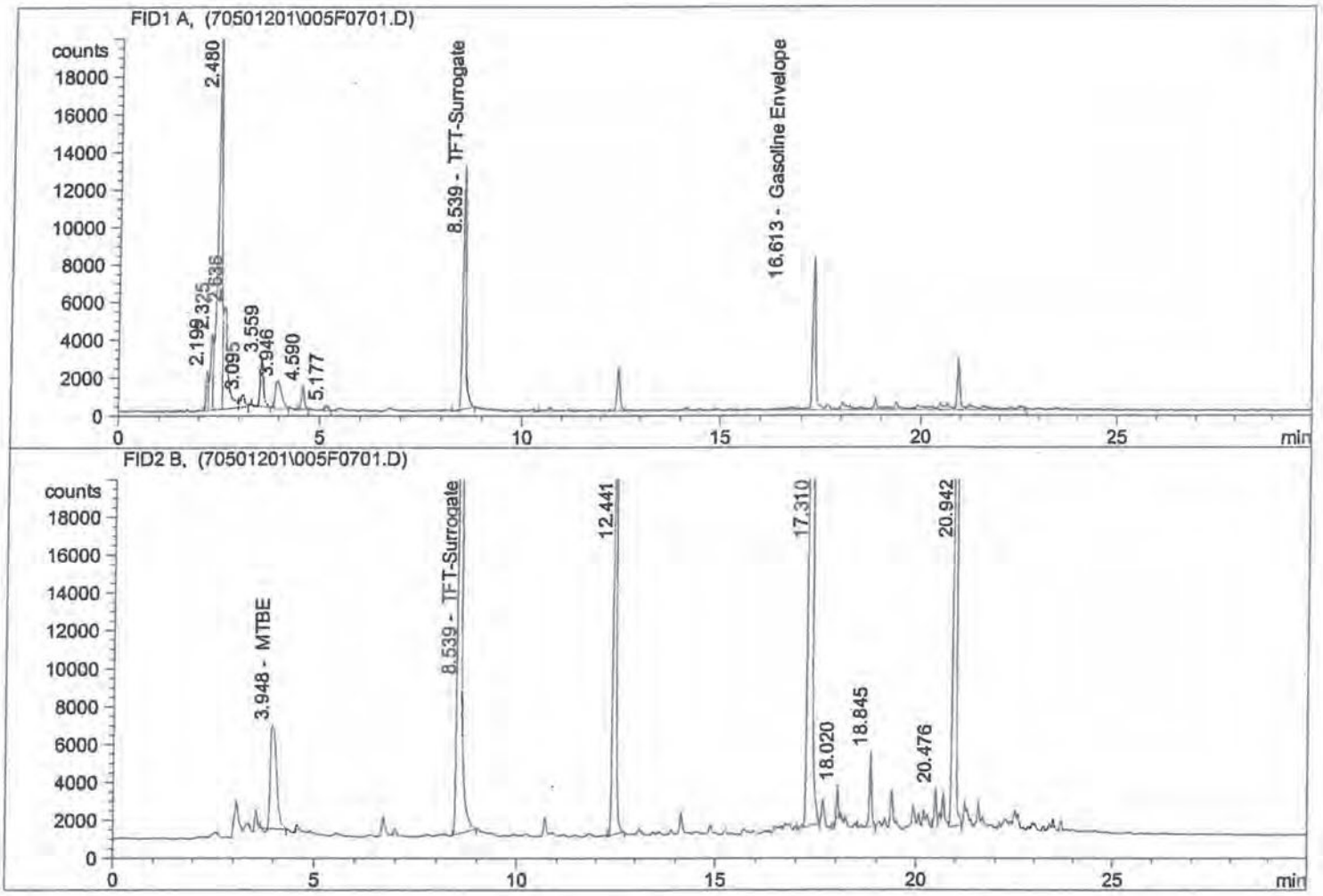
APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

Data File: C:\HPCHEM\1\DATA\70501201\005F0701.D
Injection Date & Time: 1/20/2005 12:06:56 PM
Report Created on: 1/20/2005 1:19:44 PM
Operator: LAP
Aquistion Method: 70GB0504.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB0504.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:501065-1 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.539	TFT-Surrogate	71804.156	8.985
16.613	Gasoline Envelope	123925.445	15.574

÷10×100=90%.

Gas<50ug/L

REVIEWED BY & DATE 1-20-05

Ret. Time	Compound Name	Area	Amount ug/L
3.948	MTBE	60155.285	1.612
0.000	Benzene	0.000	0.000
8.539	TFT-Surrogate	306445.562	10.179
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

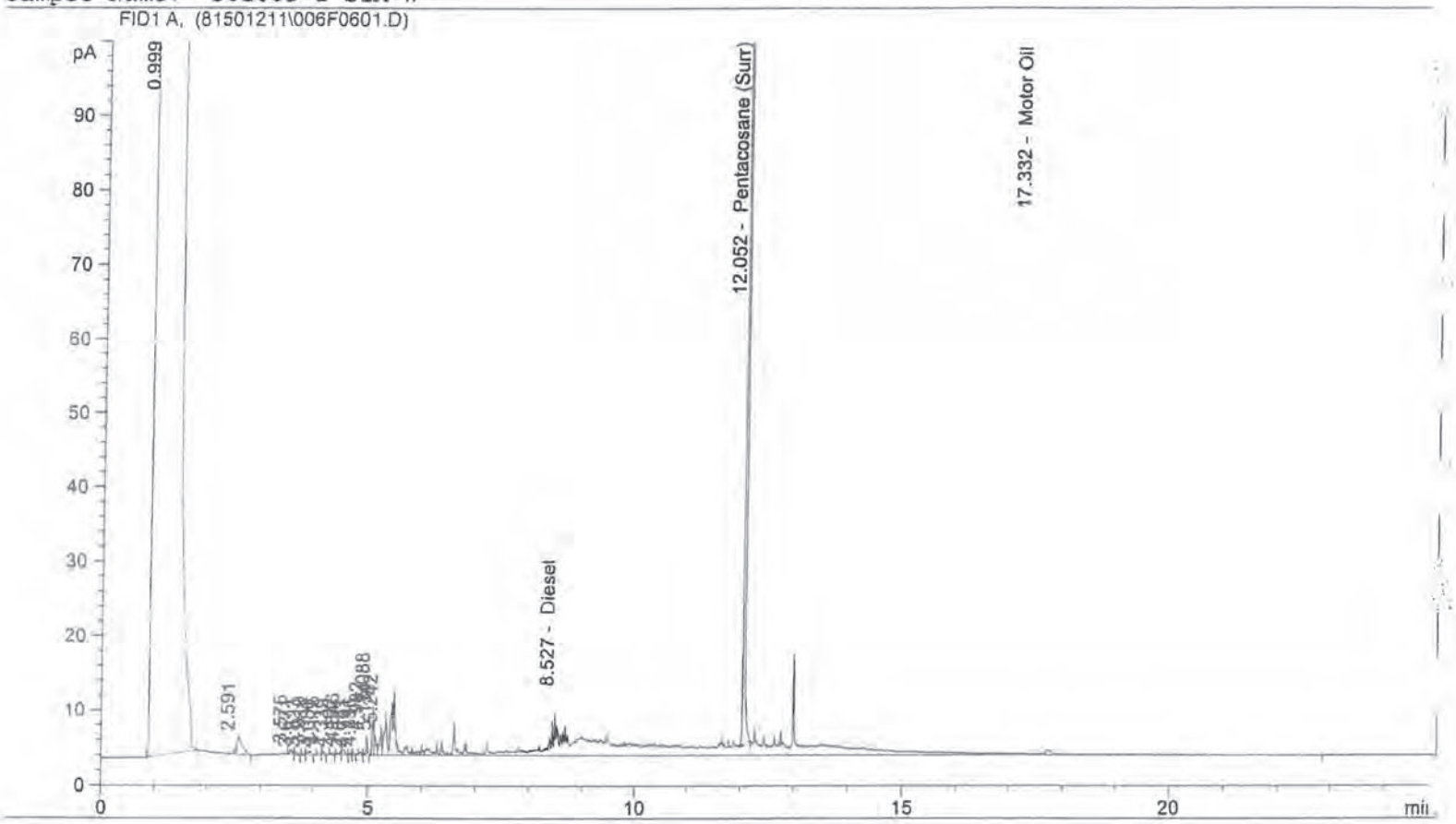
102%.

B, T, E<1ug/L X<3ug/L

1-20-05 LP

Instrument #81 Data File: C:\HPCHEM\1\DATA\81501211\006F0601.D
Operator: DLC
Method: C:\HPCHEM\1\METHODS\FDM01204.M
Injection Date & Time: 1/21/05 11:11:32 AM 1/21/05 11:11:32 AM
Report Creation: 1/21/05 12:09:24 PM

Sample Name: 501065-1 SGA W



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
8.527	FID1 A,	Diesel	463.087	31.160	
12.052		Pentacosane (Surr)	602.077	37.681	94%
17.332		Motor Oil	287.615	0.000	

D < 0.13 mg/L

MO < 0.25 mg/L

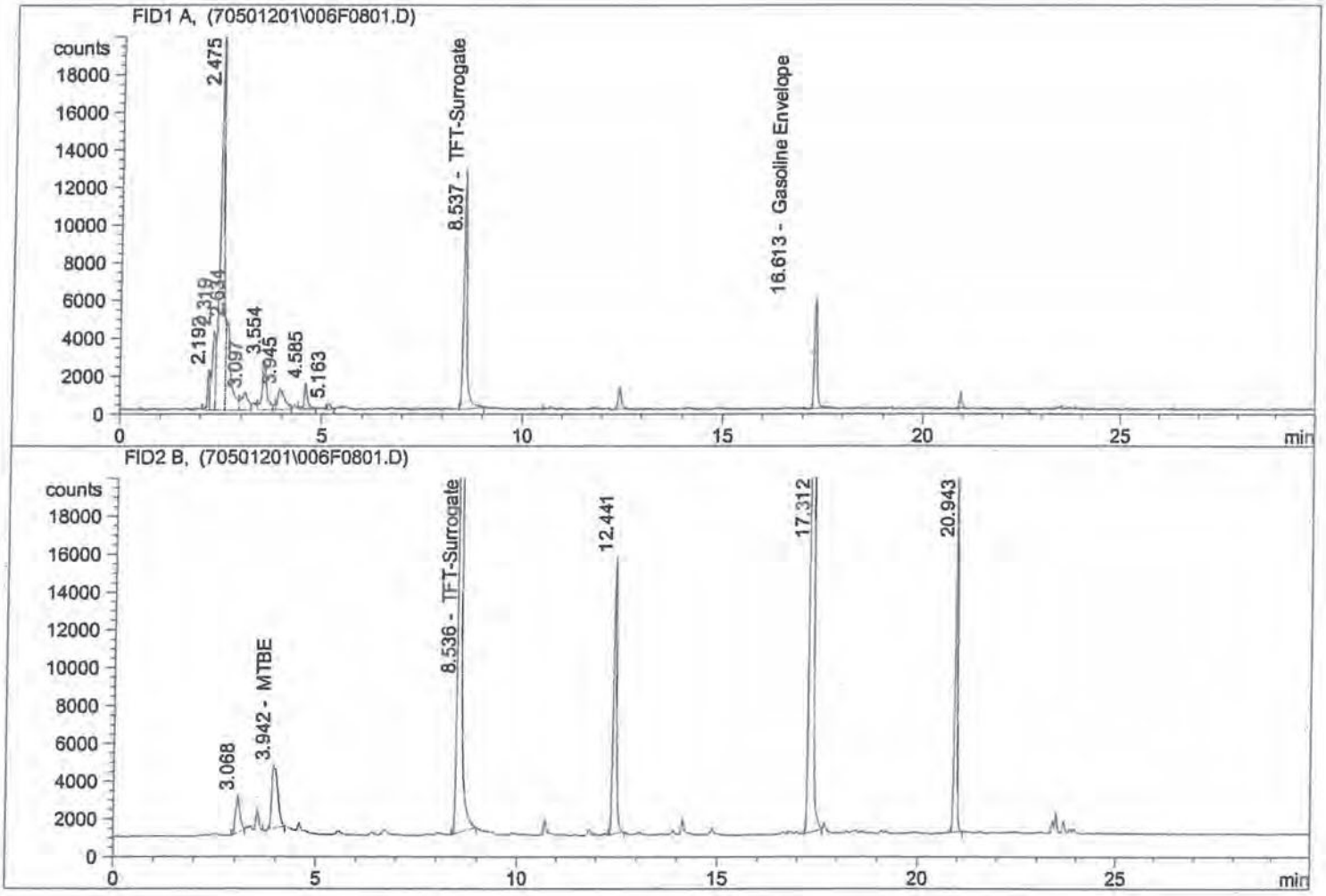
1/21/05 ES

REVIEWED BY & DATE 1.26.05

Data File: C:\HPCHEM\1\DATA\70501201\006F0801.D
Injection Date & Time: 1/20/2005 12:42:47 PM
Report Created on: 1/20/2005 1:19:57 PM
Operator: LAP
Aquistion Method: 70GB0504.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB0504.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:501065-2 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.537	TFT-Surrogate	75317.062	9.459
16.613	Gasoline Envelope	46748.605	5.875

95%

Gas <50ug/L

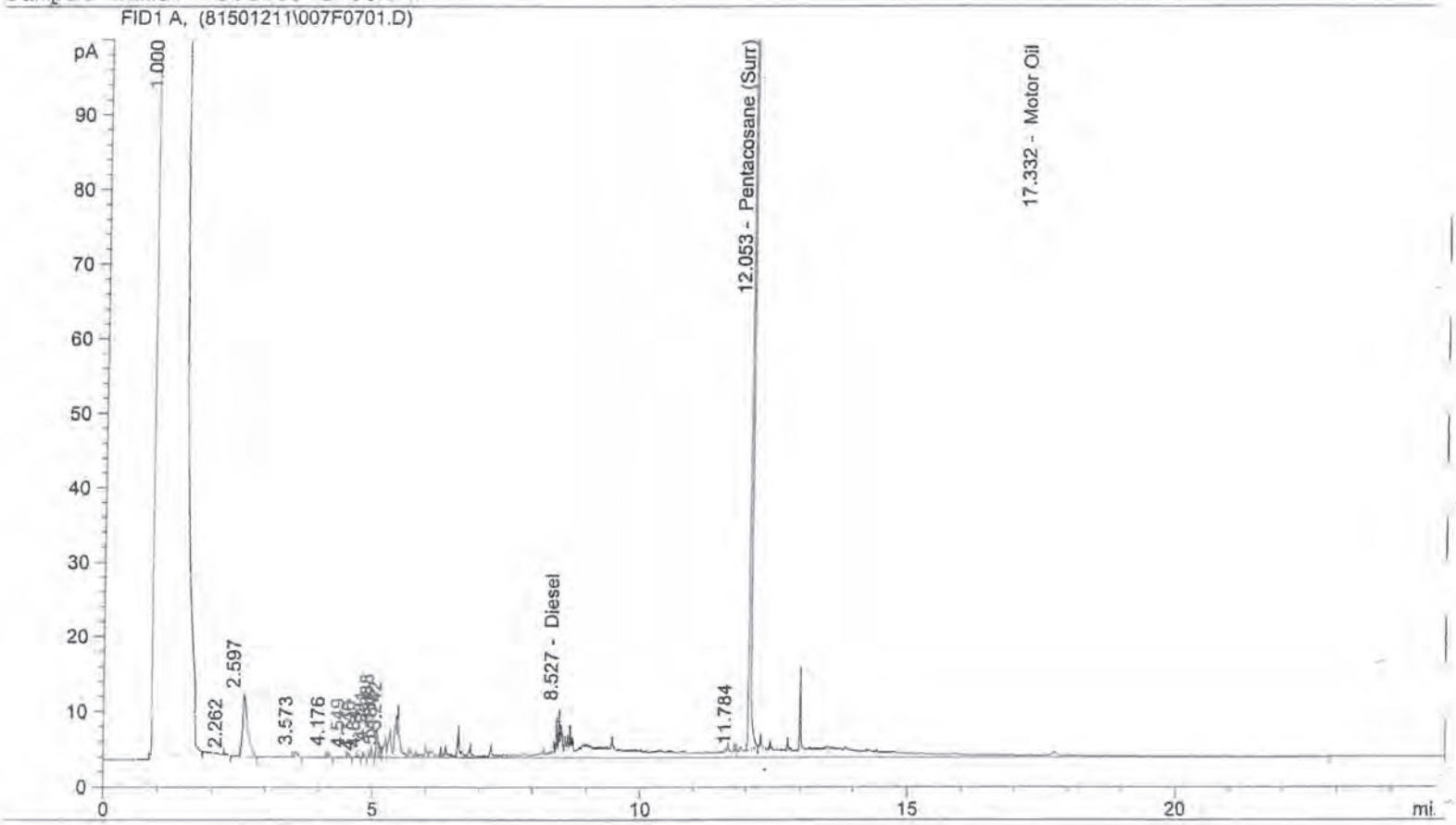
REVIEWED BY & DATE 1-26-05

Ret. Time	Compound Name	Area	Amount ug/L
3.942	MTBE	36118.289	0.968
0.000	Benzene	0.000	0.000
8.536	TFT-Surrogate	305055.750	10.132
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

B,T,E<1ug/L X<3ug/L 1-20-05LP

Instrument #81 Data File: C:\HPCHEM\1\DATA\81501211\007F0701.D
Operator: DLC
Method: C:\HPCHEM\1\METHODS\FDMO1204.M
Injection Date & Time: 1/21/05 11:41:58 AM 1/21/05 11:41:58 AM
Report Creation: 1/21/05 12:10:30 PM

Sample Name: 501065-2 SGA W



Ret. Time	Signal	Compound Name	Response	Amount ug/mL
8.527	FID1 A,	Diesel	342.732	21.189
12.053		Pentacosane (Surr)	604.532	37.837 95%
17.332		Motor Oil	287.010	0.000

DL 0.13 mg/L

MO L 0.25 mg/L

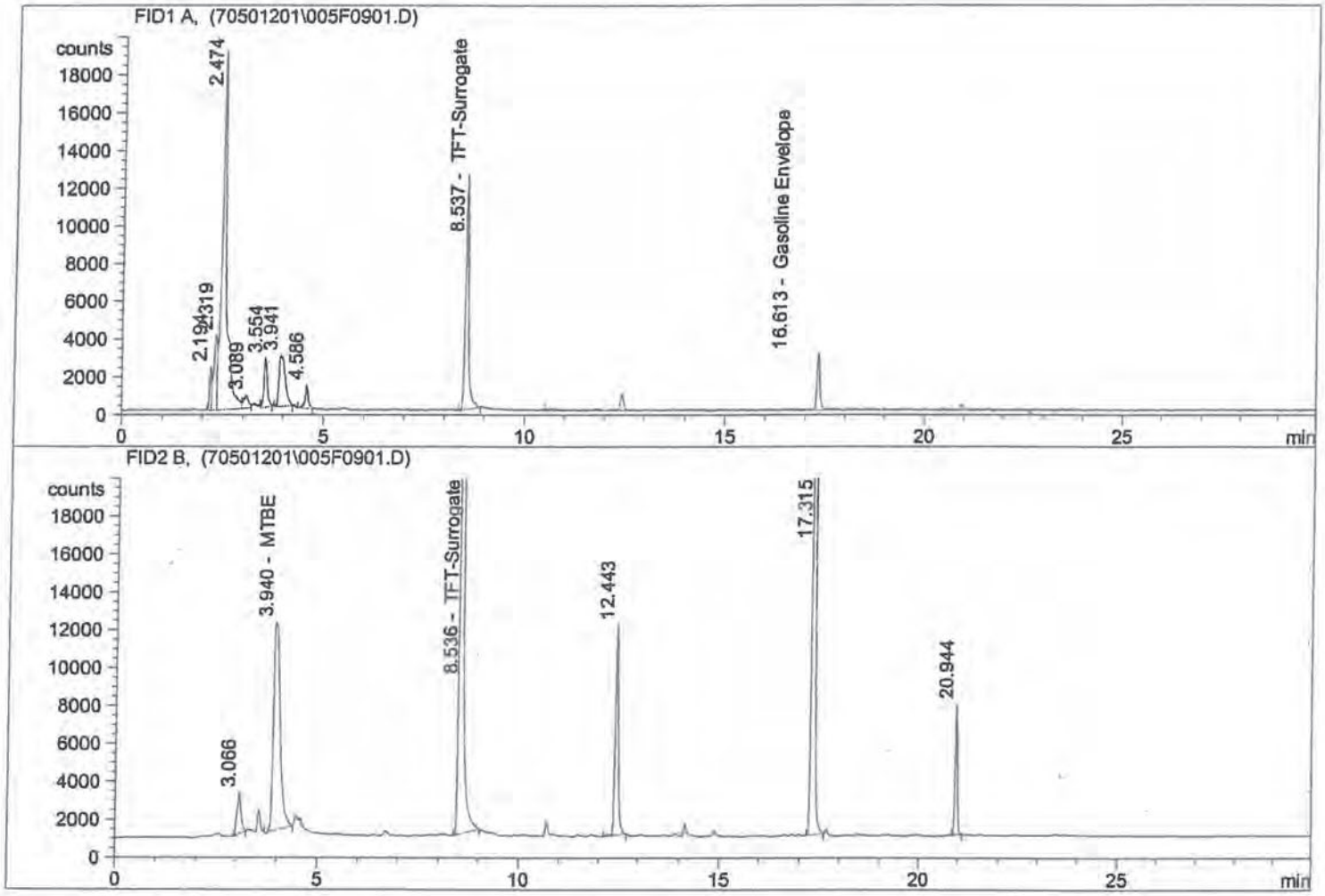
REVIEWED BY & DATE 1.26.05

1/21/05 ES

Gas/BTEX Instrument 70
Data File: C:\HPCHEM\1\DATA\70501201\005F0901.D
Injection Date & Time: 1/20/2005 1:18:36 PM
Report Created on: 1/20/2005 2:12:56 PM
Operator: LAP
Aquistion Method: 70GB0504.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB0504.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:501065-3 5ML



Ret. Time	Compound Name	Area	Amount ug/L	
8.537	TFT-Surrogate	72603.742	9.093	91%
16.613	Gasoline Envelope	44500.094	5.592	

Gas < 5 ug/L

REVIEWED BY DATE 1/21/05

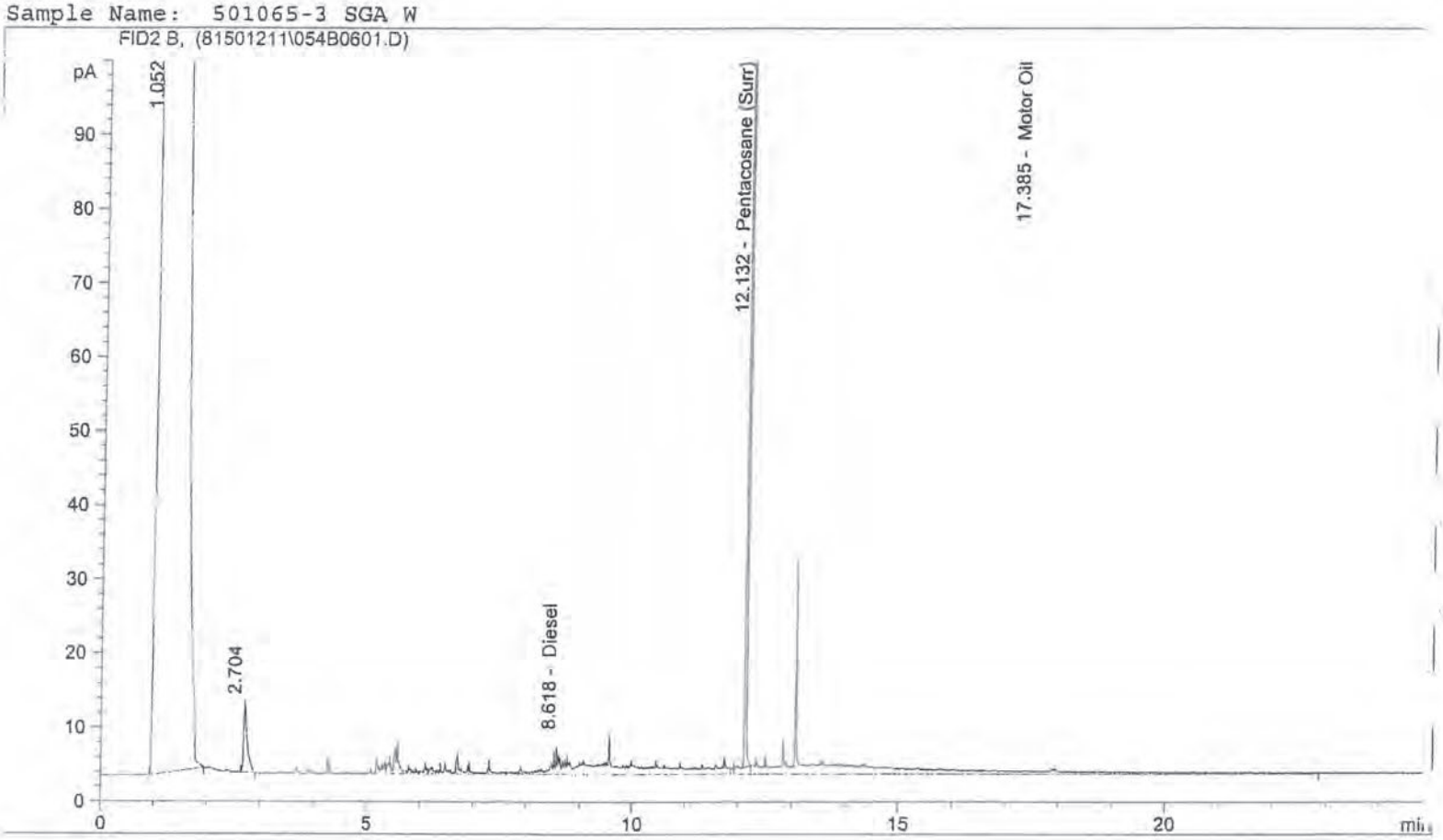
Ret. Time	Compound Name	Area	Amount ug/L	
3.940	MTBE	131932.703	3.897	
0.000	Benzene	0.000	0.000	
8.536	TFT-Surrogate	302887.969	10.058	101%
0.000	Toluene	0.000	0.000	
0.000	Ethylbenzene	0.000	0.000	
0.000	M & P- Xylenes	0.000	0.000	
0.000	O-Xylene	0.000	0.000	

B.T.E < 1 ug/L X < 3 ug/L

1-20-05 LP

Instrument #81 Data File: C:\HPCHEM\1\DATA\81501211\054B0601.D
Operator: DLC
Method: C:\HPCHEM\1\METHODS\BDMO1004.M
Injection Date & Time: 1/21/05 11:11:32 AM 1/21/05 11:11:32 AM
Report Creation: 1/21/05 11:53:32 AM

Sample Name: 501065-3 SGA W



Ret. Time	Signal	Compound Name	Response	Amount ug/mL	
8.618	FID2 B,	Diesel	317.546	31.521	
12.132		Pentacosane (Surr)	657.711	37.613	94%
17.385		Motor Oil	401.527	0.000	

D < 0.13 mg/L

M < 0.25 mg/L

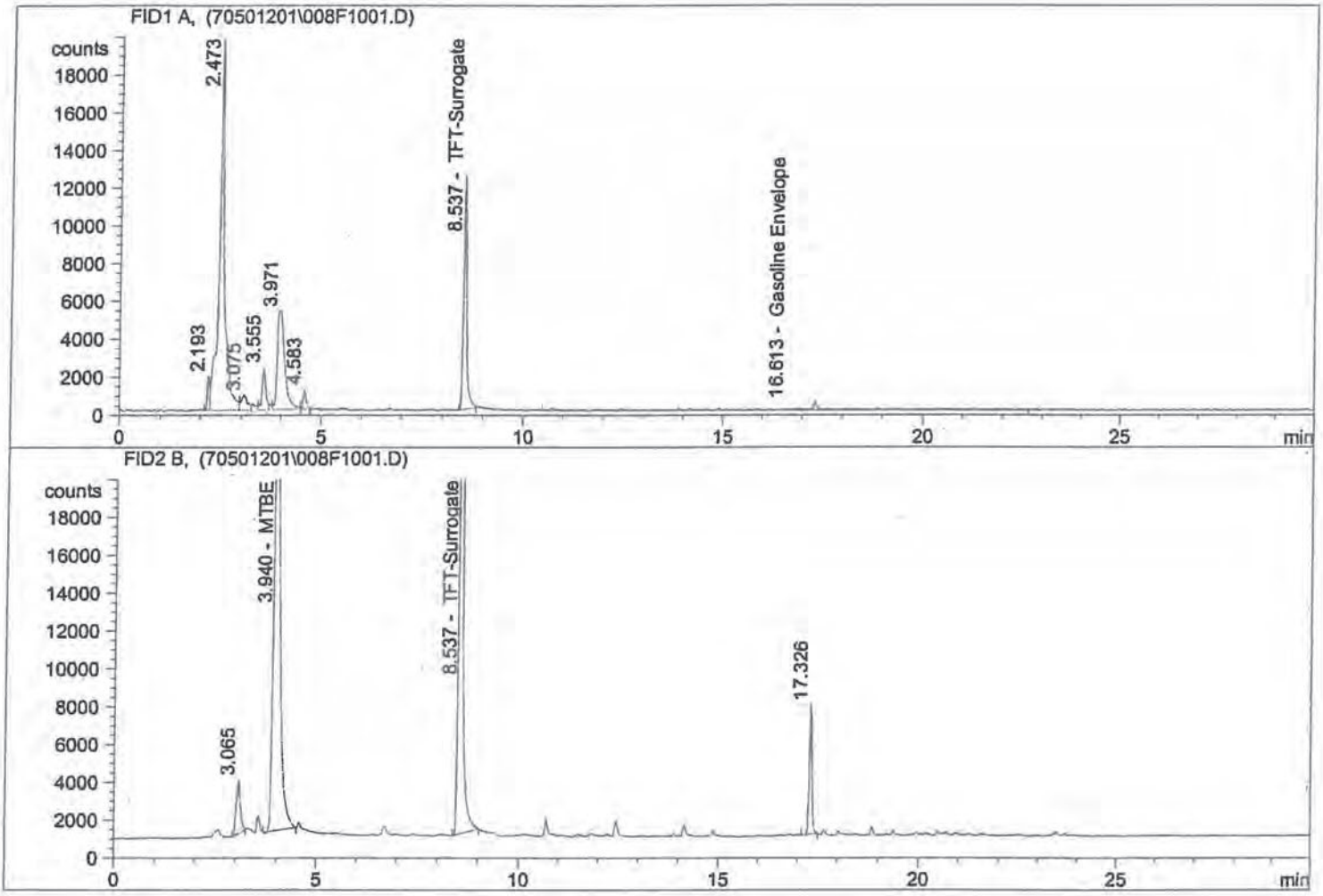
1/21/05 ES

REVIEWED BY & DATE 1-26-05

Data File: C:\HPCHEM\1\DATA\70501201\008F1C01.D
Injection Date & Time: 1/20/2005 1:54:32 PM
Report Created on: 1/20/2005 2:34:24 PM
Operator: LAP
Aquistion Method: 70GB0504.M
Analysis Method: C:\HPCHEM\1\METHODS\70GB0504.M

FID1 A equivalent to FID analysis.
FID2 B equivalent to PID analysis.

Sample Name:501065-4 5ML



Ret. Time	Compound Name	Area	Amount ug/L
8.537	TFT-Surrogate	71908.070	8.999
16.613	Gasoline Envelope	38106.371	4.789

90%.

Gas < 50 ug/L

REVIEWED BY & DATE 1/26/05

Ret. Time	Compound Name	Area	Amount ug/L
3.940	MTBE	261153.656	8.176
0.000	Benzene	0.000	0.000
8.537	TFT-Surrogate	302934.906	10.060
0.000	Toluene	0.000	0.000
0.000	Ethylbenzene	0.000	0.000
0.000	M & P- Xylenes	0.000	0.000
0.000	O-Xylene	0.000	0.000

101%.

B, T, E < 1 ug/L X < 3 ug/L

1-20-05LP

8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only)

Date 1/19/05 Page 1 Of 1

PROJECT ID: 5925-003-06
REPORT TO COMPANY: GeoEngineers, Inc.
PROJECT MANAGER: Matthew Thomas
ADDRESS: 2924 Colby Ave
Everett, WA
PHONE: 425.252-4565 FAX: 425.252.4586
P.O. NUMBER: E-MAIL: mthomas@geoengineers.com
INVOICE TO COMPANY:
ATTENTION:
ADDRESS:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX w/Si gel cleanup	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify): Total Metals: As, Cr, Ni, Pb	Dissolved metals: As, Cr, Ni, Pb	Fats, oils + grease by EPA 413.2	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. MW-20	1/19/05	12:40	W	1		X	X	X												X	X		5	
2. MW-21	1/19/05	13:40	W	2		X	X	X												X	X		5	
3. MW-22	1/19/05	14:40	W	3		X	X	X												X	X		5	
4. Purge 011905	1/19/05	15:00	W	4				X														X		
5.																								
6.																								
7.																								
8.																								
9.																								
10.																								

REPORT COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: GeoEngineers, 1/19/05 16:00
Received By: CCIAL 1/19/05 16:00
2. Relinquished By:
Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: [X] 10 Standard [ ] 5 [ ] 3 [ ] 2 [ ] 1 [ ] SAME DAY

Fuels & Hydrocarbon Analysis: [X] Standard [ ] 3 [ ] 1 [ ] SAME DAY

OTHER:
Specify: Lab filter ~~total~~ + dissolved metals

* Turnaround request less than standard may incur Rush Charge

GeoEngineers

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE

APPENDIX C
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This Appendix provides information to help you manage your risks with respect to the use of this report.

ENVIRONMENTAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS

This report has been prepared for the exclusive use of Family Fun Center, their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Family Fun Center should rely on this environmental report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

THIS ENVIRONMENTAL REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared for the Family Fun Center site. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

RELIANCE CONDITIONS FOR THIRD PARTIES

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

[1] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

ENVIRONMENTAL REGULATIONS ARE ALWAYS EVOLVING

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

UNCERTAINTY MAY REMAIN EVEN AFTER THIS PHASE II ESA IS COMPLETED

No ESA can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

SUBSURFACE CONDITIONS CAN CHANGE

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

SOIL AND GROUNDWATER END USE

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on-site in instances that we were not aware of or could not control.

MOST ENVIRONMENTAL FINDINGS ARE PROFESSIONAL OPINIONS

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

DO NOT REDRAW THE EXPLORATION LOGS

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

READ THESE PROVISIONS CLOSELY

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

GEOTECHNICAL, GEOLOGIC AND GEOENVIRONMENTAL REPORTS SHOULD NOT BE INTERCHANGED

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

BIOLOGICAL POLLUTANTS

GeoEngineers' Scope of Work specifically excludes the investigation, detection, or assessment of the presence of Biological Compounds which are Pollutants in or around any structure. Accordingly, this report includes no interpretations, recommendations, findings, or conclusions for the purpose of detecting, assessing, or abating Biological Pollutants. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.