



Charles A. Gove & Associates, Inc.
Consulting Engineers

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AUG 14 1995

BP OIL CO.
ENVIRONMENTAL DEPT.
WEST COAST REGION OFFICE

RECEIVED

SEP 20 1995

DEPT. OF ECOLOGY

11 August 1995

BP Oil Company
295 SW 41st Street
Building 13, Suite N
Renton, Washington 98055

Attention: Mr. Peter DeSantis

ST 12/16/95 W		DEPARTMENT OF ECOLOGY NWRO/TCP TANK UNIT 3129	
INTERIM CLEANUP REPORT			☒
SITE CHARACTERIZATION			☐
FINAL CLEANUP REPORT			☐
OTHER			☐
AFFECTED MEDIA:	SOIL		☒
OTHER	GW		☒
INSPECTOR (INIT.)	DATE 10-18-95		

Subject: Groundwater Monitoring and Sampling Report
2nd Quarter 1995

BP Service Station No. 11066

2421 148th NE
Bellevue, Washington

This report presents the results of groundwater monitoring and sampling activities performed on 8 June 1995 at the above site.

Introduction

The property is an operating service station, located on the northwest corner of the intersection of NE 24th and 14th NE in Bellevue, Washington (Figure 1).

Presently, the following groundwater wells exist on site:

- Four four-inch inside diameter (ID) groundwater monitoring wells;
- Three two-inch ID groundwater monitoring wells.
- One four-inch diameter recovery well (MW-7).
- Two new two-inch diameter wells/sparge points.

A pneumatic skimmer was installed but not operating in MW-7 at the time of sampling. Passive product skimmers were present in monitoring wells MW-1, 2 & 8.

The approximate site boundaries, locations of existing buildings and underground storage tanks, approximate locations of existing monitoring wells, and other pertinent site information are presented on the Site and Exploration Plan, Figure 2.

Groundwater Monitoring

Fluid level measurements in each monitoring well were completed with an interface probe to indicate thickness of liquid petroleum hydrocarbons (LPH), if present, and depth to groundwater relative to the top of the well casings (TOC). Groundwater measurements in the site wells ranged from 22 to 23 feet below ground surface, relative elevations are based on an arbitrary datum (Table 1). The inferred groundwater migration direction is to the south. This determination is based upon groundwater measurements from the monitoring wells on site, corrected for the presence of LPH.

Thicknesses ranging from a sheen to 0.65 feet of phase separated liquid petroleum hydrocarbons (LPH) were measured in five monitoring wells.

Dissolved oxygen levels were measured directly in the well using a cable-mounted polarographic probe, correcting for temperature and salinity (Table 2).

Sampling Procedures and Analyses

Groundwater samples were collected from two the seven site monitoring wells 8 June 1995 for analytical laboratory testing. To obtain a sample representative of the surrounding formation, each well was purged of at least three well volumes of groundwater prior to sampling. A new disposable bailer for each well was used to obtain discrete and representative groundwater samples. The samples were then decanted into laboratory prepared containers, labeled, and immediately placed into a chilled cooler for transport to Analytical Technologies, Inc. (Renton, WA). Chain-of-custody procedures were followed to track sample possession from the time of collection until receipt by the analytical laboratory.

The following analyses were performed on select groundwater samples:

- Washington Total Petroleum Hydrocarbons-Gasoline range with Benzene, Toluene, Ethylbenzene, and total Xylenes distinction using Washington Department of Ecology (Ecology) test method WTPH-G/BTEX;

Analytical Laboratory Results

In general, petroleum hydrocarbon concentrations ranged from below method detection limits up to 8 ug/l benzene for samples MW-4, 5 & 9. The remaining site wells were not sampled due to the presence of LPH ranging up to 0.65 feet in thickness.

A summary of the results of analytical tests performed on groundwater samples collected at the subject site to date are presented in Table 2. The analytical results for this sampling event are also presented on Figure 2. The ATI report and complete Chain of Custody form is also attached.

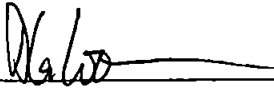
Summary

Thicknesses ranging from a sheen up to 0.65 feet of phase separated liquid petroleum hydrocarbons (LPH) were measured in Five monitoring wells. A pneumatic skimmer was present but not operating in MW-7 at the time of sampling. Passive skimmers were present in monitoring wells MW-1, 2 & 8. A total of less than 1 gallon of product was recovered by all three passive skimmers. An additional 3 gallons of LPH was bailed out of the wells at the time of our visit. The passive skimmer in MW-2 was readjusted to place the hydrophobic membrane at the water/product interface. Dissolved TPH and BTEX concentrations in groundwater samples were similar to previous sampling events.

We appreciate this opportunity to be of service to BP Oil Company. If you have any questions or comments regarding this letter report or other aspects of this project, please do not hesitate to call at your earliest convenience.

Respectfully submitted,

Charles A. Gove & Associates



David G. Cooper, P.G.
Environmental Geologist

Enclosures: Table 1 - Summary of Fluid Level Measurements
Table 2 - Summary of Analytical Results: Groundwater
Figure 1 - Location Map
Figure 2 - Site and Exploration Plan
CAG Groundwater Sampling/Monitoring Field Form
ATI Report and Chain of Custody

GROUNDWATER MONITORING REPORT
BP SERVICE STATION NO. 11066
11 AUG 95
PAGE 4

Table 1: Summary of Fluid Level Measurements
 BP Service Station No. 11066
 2421 148th NE
 Bellevue, Washington

Well Number	Top of Casing Elevation (ft)	Date Collected	Product Thickness (ft)	Depth to Water (ft)	Groundwater Elevation (ft)*
MW-1	313.08	2-Mar-92	0.03	23.42	289.68
		4-Apr-92	0.18	23.52	289.70
		12-May-92	0.23	23.49	289.77
		11-Jun-92	0.53	23.95	289.55
		26-May-93	0.07	24.62	288.52
		28-Jun-94	1.03	24.72	289.18
		29-Sep-94	0.68	25.08	288.54
		13-Dec-94	0.82	25.10	288.64
		3-Mar-95	0.47	23.27	290.19
		8-Jun-95	SHEEN	22.50	290.58
MW-2	312.13	2-Mar-92	1.55	24.35	289.02
		4-Apr-92	1.59	24.34	289.06
		12-May-92	1.61	24.26	289.16
		11-Jun-92	0.36	23.75	288.67
		26-May-93	0.43	24.45	288.02
		28-Jun-94	0.93	24.40	288.47
		29-Sep-94	0.92	25.02	287.85
		13-Dec-94	1.51	25.46	287.88
		3-Mar-95	0.18	23.95	288.32
		8-Jun-95	0.22	22.53	289.78
MW-3	313.70	2-Mar-92	0.04	23.50	290.23
		4-Apr-92	0.2	23.50	290.36
		12-May-92	0.21	23.43	290.44
		11-Jun-92	1.47	24.39	290.49
		26-May-93	0.19	24.50	289.35
		28-Jun-94	0.45	23.95	290.11
		29-Sep-94	0.43	24.79	289.25
		13-Dec-94	0.36	24.67	289.32
		3-Mar-95	0.41	23.07	290.96
		8-Jun-95	0.15	22.42	291.40
MW-4	314.21	26-May-93	0	24.63	289.58
		28-Jun-94	0	23.88	290.33
		29-Sep-94	0	24.83	289.38
		13-Dec-94	0	24.61	289.60
		3-Mar-95	0	22.92	291.29
		8-Jun-95	0	22.25	291.96

GROUNDWATER MONITORING REPORT
BP SERVICE STATION NO. 11066
11 AUG 95
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Table 1: **Summary of Fluid Level Measurements**
BP Service Station No. 11066
2421 148th NE
Bellevue, Washington

Well Number	Top of Casing Elevation (ft)	Date Collected	Product Thickness (ft)	Depth to Water (ft)	Groundwater Elevation (ft)*
MW-5	315.62	26-May-93	0	25.27	290.35
		28-Jun-94	0	24.52	291.10
		29-Sep-94	0	25.51	290.11
		13-Dec-94	0	25.34	290.28
		3-Mar-95	0	23.57	292.05
		8-Jun-95	0	22.96	292.66
MW-6	314.82	26-May-93	0	25.21	289.61
		28-Jun-94	0.12	24.76	290.16
		29-Sep-94	0.43	25.80	289.36
		13-Dec-94	0.33	25.83	289.25
		3-Mar-95	0.09	24.02	290.87
		8-Jun-95	0.1	23.30	291.60
MW-7	311.95	26-May-93	3.91	27.16	287.92
		28-Jun-94	Not measured due to installed pump.		
		29-Sep-94	"		
		13-Dec-94	"		
		8-Jun-95	"		
MW-8	310.82	26-May-93	0	23.03	287.79
		28-Jun-94	0.48	23.33	287.87
		29-Sep-94	0.36	23.75	287.36
		13-Dec-94	2.56	25.46	287.41
		3-Mar-95	2.32	23.72	288.96
		8-Jun-95	0.65	22.06	289.28
MW-9	314.9	8-Jun-95	0	22.81	292.09

Notes:

Groundwater elevation established relative to an arbitrary datum of 100.00 feet.

* = Groundwater elevation is corrected for the effects of LPH using the following formula:

$TOC - [DTW - (PT)(0.80)]$ where TOC=Top of Casing, DTW=Depth to Water,

PT=Product Thickness, and 0.80=Typical Specific Gravity for Gasoline.

** = Groundwater elevation was not measured on this date.

GROUNDWATER MONITORING REPORT
BP SERVICE STATION NO. 11066
11 AUG 95
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Table 2: Summary of Analytical Results: Groundwater
BP Service Station No. 11066
2421 148th Avenue NE
Bellevue, Washington

Well Number	Date Collected	WTPH-D (ug/l)	WTPH-G (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl Benzene (ug/l)	Total Xylenes (ug/l)	Total Lead (ug/l)	Dissolved Lead (ug/l)	Turbidity (NTU)	Dissolved Oxygen (%)
MW-4	23-May-93	<50	<50	0.9	<0.5	<0.5	<1	6	NT	NT	
	28-Jun-94		<100	0.7	<0.5	<0.5	<0.5	NT	NT	NT	14
	29-Sep-94	NT	<100	0.8	<0.5	<0.5	<0.5	NT	NT	NT	4
	13-Dec-94	NT	<100	0.9	<0.5	<0.5	<0.5	NT	NT	NT	14
	3-Mar-95	NT	<100	1.1	<0.5	<0.5	<0.5	NT	NT	NT	8
	8-Jun-95	NT	<100	1.3	<0.5	<0.5	<0.5	NT	NT	NT	5
MW-5	23-May-93	<50	110	2	0.9	4.9	10	28	NT	NT	
	28-Jun-94		<100	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	1
	29-Sep-94	NT	<100	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	33
	13-Dec-94	NT	<100	0.9	<0.5	<0.5	<0.5	NT	NT	NT	40
	3-Mar-95	NT	<100	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	37
	8-Jun-95	NT	<100	<0.5	<0.5	<0.5	<0.5	NT	NT	NT	6
MW-6	23-May-93	2,100	70,000	6,600	12,000	880	6,800	31	NT	NT	
	28-Jun-94	Not sampled due to presence of LPH.									
	29-Sep-94	Not sampled due to presence of LPH.									
	13-Dec-94	Not sampled. LPH present.									
	3-Mar-95	Not sampled. LPH present.									
	8-Jun-95	Not sampled. LPH present.									
MW-9	8-Jun-95	NT	<100	8	<0.5	0.58	1.1	NT	NT	NT	9

Notes:

WTPH-G = total petroleum hydrocarbons - gasoline, by Ecology Method WTPH-G.

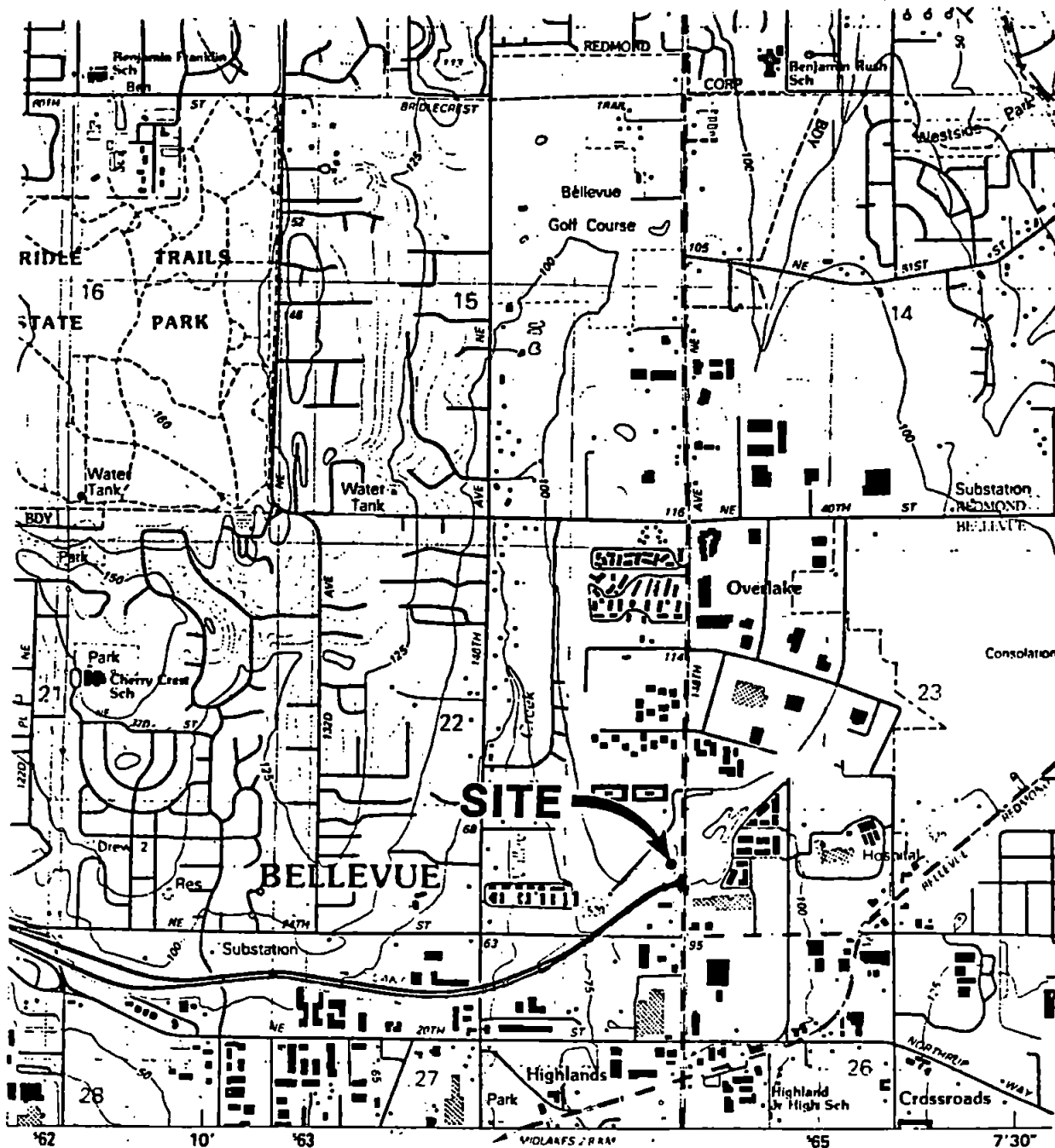
Benzene, Toluene, Ethyl Benzene and Total Xylenes (BTEX) were analyzed by EPA Method 8020.

Total and dissolved lead by EPA Method 7421.

NT = Not tested.

All concentrations are expressed in ug/l.

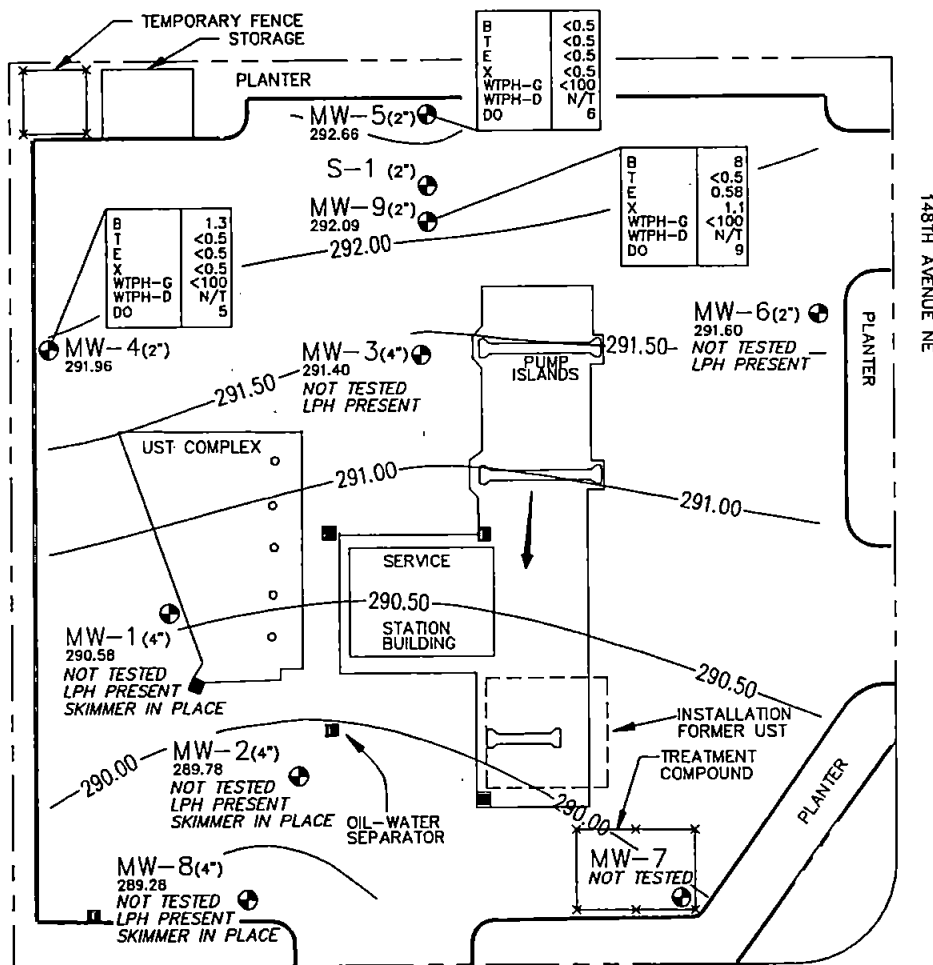
Concentrations preceded by a "<" are laboratory method detection limits. The method detection limit may vary depending on the laboratory used and sample characteristics.



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LOCATION MAP — FIGURE 1
 BP SITE #11066
 BELLEVUE, WASHINGTON

Date	8/22/94	Scale	NTS	FILE:	JOB#: 94081
------	---------	-------	-----	-------	-------------



LEGEND

MW-2
● MONITORING WELL LOCATION

20.10 SPOT GROUNDWATER SURFACE ELEVATION IN FEET

18.56 INFERRED GROUNDWATER SURFACE ELEVATION CONTOUR IN FEET

← INFERRED DIRECTION OF GROUNDWATER FLOW

GROUND WATER TEST RESULTS 6-8-95

CONCENTRATIONS IN PARTS PER BILLION (PPB)
(OR METHOD DETECTION LIMIT IF PRECEDED BY "<")

B BENZENE BY EPA METHOD 8020
T TOLUENE BY EPA METHOD 8020
E ETHYLBENZENE BY EPA METHOD 8020
X XYLENES BY EPA METHOD 8020
WTPH-G WASHINGTON TOTAL PETROLEUM HYDROCARBONS FOR GASOLINE (EPA METHOD WTPH-G)
WTPH-D WASHINGTON TOTAL PETROLEUM HYDROCARBONS FOR DIESEL (EPA METHOD WTPH-D)
DO DISSOLVED OXYGEN (%)
N/T NOT TESTED

B	<0.5
T	<0.5
E	<0.5
X	<0.5
WTPH-G	<100
WTPH-D	N/T
DO	35

COMPOUNDS

CONCENTRATIONS OR
DETECTION LIMITS

NE 24TH STREET

SOURCE OF BASE MAP:- Geraghty & Miller, Inc.

0 30 60
SCALE IN FEET

REV.	DATE	BY	DESCRIPTION

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SITE & EXPLORATION PLAN FIGURE - 2
BP SITE #11066
BELLEVUE, WASHINGTON

Drawn	Scale 1"=30'-0"	SHEETS SHEET
Approved	Date 3/3/95	

CAD FILE: 11066 JOB#: 94081



Location 11066, 24th+148th, Bellevue JOB # 94081
Method of Collection SS, AB Weather Sunny, 75° Page 1 of 1
Sampled By: Bill Dougherty Date 6/8/95

[illegible]

**TOTAL
PURGED**

14 | (3.256)

2 new wells MW9+S-1
8 bbls Alisto purge / Decon / soil 4/95
3 bbls in temp. fencing
MW1: 8" LPH in 1 1/4" skimmer, repaired and adjusted
MW2: 28" LPH in 1 1/4" skimmer
MW8: 8" LPH in 1 1/4" skimmer, adjusted
Clear gas on all wells with LPH

3 WELL VOLUMES:

2" ID = 0.5 gal/ft

4" ID = 2.0 gal/ft

6" ID = 4.4 gal/ft



Analytical**Technologies, Inc.**

560 Naches Avenue, S.W., Suite 101, Renton, WA 98055 (206) 228-8335

Susan M. Snyder, Laboratory Manager

ATI I.D. # 506044

June 20, 1995

Charles A. Gove & Associates
11 105th Ave. S.E.
Suite 8
Bellevue WA 98004

Attention : David Cooper

Project Number : BP# 11066/G342740

Project Name : BP# 11066/N.E. 24th & 148th

Dear Mr. Cooper:

On June 9, 1995, Analytical Technologies, Inc. (ATI), received four samples for analysis. The samples were analyzed with EPA methodology or equivalent methods as specified in the attached analytical schedule. The results, sample cross reference, and quality control data are enclosed.

Sincerely,

Victoria L. Bayly
Project Manager

VLB/hal/elf

Enclosure



ATI I.D. # 506044

SAMPLE CROSS REFERENCE SHEET

CLIENT : CHARLES A. GOVE & ASSOCIATES
PROJECT # : BP# 11066/G342740
PROJECT NAME : BP# 11066/N.E. 24TH & 148TH

ATI #	CLIENT DESCRIPTION	DATE SAMPLED	MATRIX
506044-1	MW5	06/08/95	WATER
506044-2	MW4	06/08/95	WATER
506044-3	MW9	06/08/95	WATER
506044-4	TRIP BLANK	N/A	WATER

----- TOTALS -----

MATRIX	# SAMPLES
WATER	4

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of the report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

ATI I.D. # 506044

ANALYTICAL SCHEDULE

CLIENT : CHARLES A. GOVE & ASSOCIATES
PROJECT # : BP# 11066/G342740
PROJECT NAME : BP# 11066/N.E. 24TH & 148TH

ANALYSIS	TECHNIQUE	REFERENCE	LAB
BETX	GC/PID	EPA 8020	R
TOTAL PETROLEUM HYDROCARBONS	GC/FID	WA DOE WTPH-G	R

R = ATI - Renton
SD = ATI - San Diego
PHX = ATI - Phoenix
PTL = ATI - Portland
ANC = ATI - Anchorage
PNR = ATI - Pensacola
FC = ATI - Fort Collins
SUB = Subcontract



ATI I.D. # 506044

BETX - GASOLINE
DATA SUMMARY

CLIENT	: CHARLES A. GOVE & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: BP# 11066/G342740	DATE RECEIVED	: N/A
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE EXTRACTED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 06/09/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)	DILUTION FACTOR	: 1

COMPOUNDS

RESULTS

BENZENE	<0.5
ETHYLBENZENE	<0.5
TOLUENE	<0.5
TOTAL XYLENES	<0.5

FUEL HYDROCARBONS	<100
HYDROCARBON RANGE	TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

BROMOFLUOROBENZENE	100	76 - 120
TRIFLUOROTOLUENE	100	50 - 150

ATI I.D. # 506044

BETX - GASOLINE
DATA SUMMARY

CLIENT	: CHARLES A. GOVE & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: BP# 11066/G342740	DATE RECEIVED	: N/A
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE EXTRACTED	: N/A
CLIENT I.D.	: METHOD BLANK	DATE ANALYZED	: 06/12/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)	DILUTION FACTOR	: 1

COMPOUNDS

RESULTS

BENZENE	<0.5
ETHYLBENZENE	<0.5
TOLUENE	<0.5
TOTAL XYLENES	<0.5

FUEL HYDROCARBONS	<100
HYDROCARBON RANGE	TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

BROMOFLUOROBENZENE	101	76 - 120
TRIFLUOROTOLUENE	103	50 - 150

ATI I.D. # 506044-1

BETX - GASOLINE
DATA SUMMARY

CLIENT	: CHARLES A. GOVE & ASSOCIATES	DATE SAMPLED	: 06/08/95
PROJECT #	: BP# 11066/G342740	DATE RECEIVED	: 06/09/95
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW5	DATE ANALYZED	: 06/09/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)	DILUTION FACTOR	: 1

COMPOUNDS

RESULTS

BENZENE	<0.5
ETHYLBENZENE	<0.5
TOLUENE	<0.5
TOTAL XYLENES	<0.5

FUEL HYDROCARBONS	<100
HYDROCARBON RANGE	TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

BROMOFLUOROBENZENE	101	76 - 120
TRIFLUOROTOLUENE	98	50 - 150



ATI I.D. # 506044-2

 BETX - GASOLINE
 DATA SUMMARY

CLIENT	: CHARLES A. GOVE & ASSOCIATES	DATE SAMPLED	: 06/08/95
PROJECT #	: BP# 11066/G342740	DATE RECEIVED	: 06/09/95
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW4	DATE ANALYZED	: 06/09/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)	DILUTION FACTOR	: 1

 COMPOUNDS

 RESULTS

BENZENE	1.3
ETHYLBENZENE	<0.5
TOLUENE	<0.5
TOTAL XYLENES	<0.5
FUEL HYDROCARBONS	<100
HYDROCARBON RANGE	TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

BROMOFLUOROBENZENE	101	76 - 120
TRIFLUOROTOLUENE	103	50 - 150



ATI I.D. # 506044-3

BETX - GASOLINE
DATA SUMMARY

CLIENT	: CHARLES A. GOVE & ASSOCIATES	DATE SAMPLED	: 06/08/95
PROJECT #	: BP# 11066/G342740	DATE RECEIVED	: 06/09/95
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE EXTRACTED	: N/A
CLIENT I.D.	: MW9	DATE ANALYZED	: 06/09/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)	DILUTION FACTOR	: 1

COMPOUNDSRESULTS

BENZENE	8.0
ETHYLBENZENE	0.58
TOLUENE	<0.5
TOTAL XYLENES	1.1

FUEL HYDROCARBONS	<100
HYDROCARBON RANGE	TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

BROMOFLUOROBENZENE	102	76 - 120
TRIFLUOROTOLUENE	102	50 - 150

ATI I.D. # 506044-4

BETX - GASOLINE
DATA SUMMARY

CLIENT	: CHARLES A. GOVE & ASSOCIATES	DATE SAMPLED	: N/A
PROJECT #	: BP# 11066/G342740	DATE RECEIVED	: 06/09/95
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE EXTRACTED	: N/A
CLIENT I.D.	: TRIP BLANK	DATE ANALYZED	: 06/09/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)	DILUTION FACTOR	: 1

COMPOUNDS

RESULTS

BENZENE	<0.5
ETHYLBENZENE	<0.5
TOLUENE	<0.5
TOTAL XYLENES	<0.5

FUEL HYDROCARBONS	<100
HYDROCARBON RANGE	TOLUENE TO DODECANE
HYDROCARBON QUANTITATION USING	GASOLINE

SURROGATE PERCENT RECOVERY

LIMITS

BROMOFLUOROBENZENE	105	76 - 120
TRIFLUOROTOLUENE	102	50 - 150



ATI I.D. # 506044

BETX - GASOLINE
QUALITY CONTROL DATA

CLIENT : CHARLES A. GOVE & ASSOCIATES	SAMPLE I.D. # : BLANK
PROJECT # : BP# 11066/G342740	DATE EXTRACTED : N/A
PROJECT NAME : BP# 11066/N.E. 24TH & 148TH	DATE ANALYZED : 06/09/95
SAMPLE MATRIX : WATER	UNITS : ug/L
METHOD : WA DOE WTPH-G/8020 (BETX)	

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<0.500	20.0	21.3	107	N/A	N/A	N/A
TOLUENE	<0.500	20.0	21.3	107	N/A	N/A	N/A
TOTAL XYLENES	<0.500	40.0	43.1	108	N/A	N/A	N/A
GASOLINE	<100	1000	986	99	N/A	N/A	N/A

CONTROL LIMITS	% REC.	RPD
BENZENE	89 - 110	10
TOLUENE	89 - 113	10
TOTAL XYLENES	89 - 111	10
GASOLINE	78 - 116	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
BROMOFLUOROBENZENE	101	N/A	76 - 120
TRIFLUOROTOLUENE	99	N/A	50 - 150

ATI I.D. # 506044

BETX - GASOLINE
QUALITY CONTROL DATA

CLIENT	: CHARLES A. GOVE & ASSOCIATES	SAMPLE I.D. #	: BLANK
PROJECT #	: BP# 11066/G342740	DATE EXTRACTED	: N/A
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE ANALYZED	: 06/12/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)		

COMPOUNDS	SAMPLE RESULT	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED SAMPLE	DUP. % REC.	RPD
BENZENE	<0.500	20.0	20.9	105	N/A	N/A	N/A
TOLUENE	<0.500	20.0	20.9	105	N/A	N/A	N/A
TOTAL XYLENES	<0.500	40.0	42.0	105	N/A	N/A	N/A
GASOLINE	<100	1000	1020	102	N/A	N/A	N/A

CONTROL LIMITS	% REC.	RPD
BENZENE	89 - 110	10
TOLUENE	89 - 113	10
TOTAL XYLENES	89 - 111	10
GASOLINE	78 - 116	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
BROMOFLUOROBENZENE	100	N/A	76 - 120
TRIFLUOROTOLUENE	101	N/A	50 - 150



ATI I.D. # 506044

BETX - GASOLINE
QUALITY CONTROL DATA

CLIENT	: CHARLES A. GOVE & ASSOCIATES	SAMPLE I.D. #	: 506044-1
PROJECT #	: BP# 11066/G342740	DATE EXTRACTED	: N/A
PROJECT NAME	: BP# 11066/N.E. 24TH & 148TH	DATE ANALYZED	: 06/09/95
SAMPLE MATRIX	: WATER	UNITS	: ug/L
METHOD	: WA DOE WTPH-G/8020 (BETX)		

COMPOUND	SAMPLE RESULT	SAMPLE DUP. RESULT	RPD	SPIKE ADDED	SPIKED RESULT	% REC.	DUP. SPIKED RESULT	DUP. % REC.	RPD
BENZENE	<0.500	N/A	N/A	20.0	21.3	107	21.3	107	0
TOLUENE	<0.500	N/A	N/A	20.0	21.0	105	21.2	106	1
TOTAL XYLENES	<0.500	N/A	N/A	40.0	42.2	106	42.5	106	1
GASOLINE	<100	<100	NC	1000	1030	103	1030	103	0

CONTROL LIMITS	% REC.	RPD
BENZENE	86 - 113	10
TOLUENE	87 - 114	10
TOTAL XYLENES	85 - 113	10
GASOLINE	80 - 113	20

SURROGATE RECOVERIES	SPIKE	DUP. SPIKE	LIMITS
BROMOFLUOROBENZENE	102	101	76 - 120
TRIFLUOROTOLUENE	102	101	50 - 150

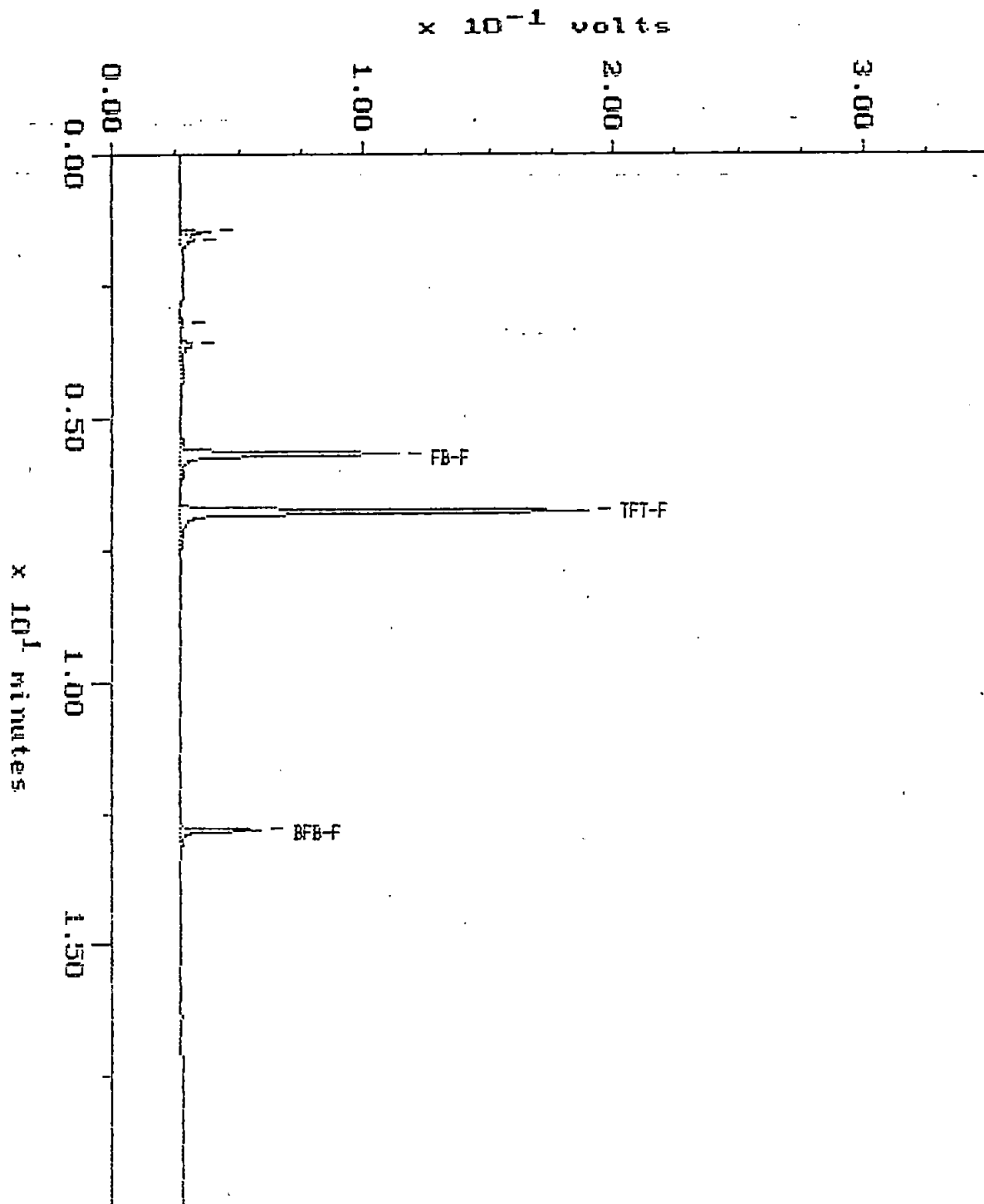
NC = Not calculable.

Blank

WA DOE WTPH-G

Sample: WRB 6-9 Channel: FID
Acquired: 09-JUN-95 10:04 Method: X:\MAXDATA\PICARD\060995PC
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.

Filename: R60995P03
Operator: ATI



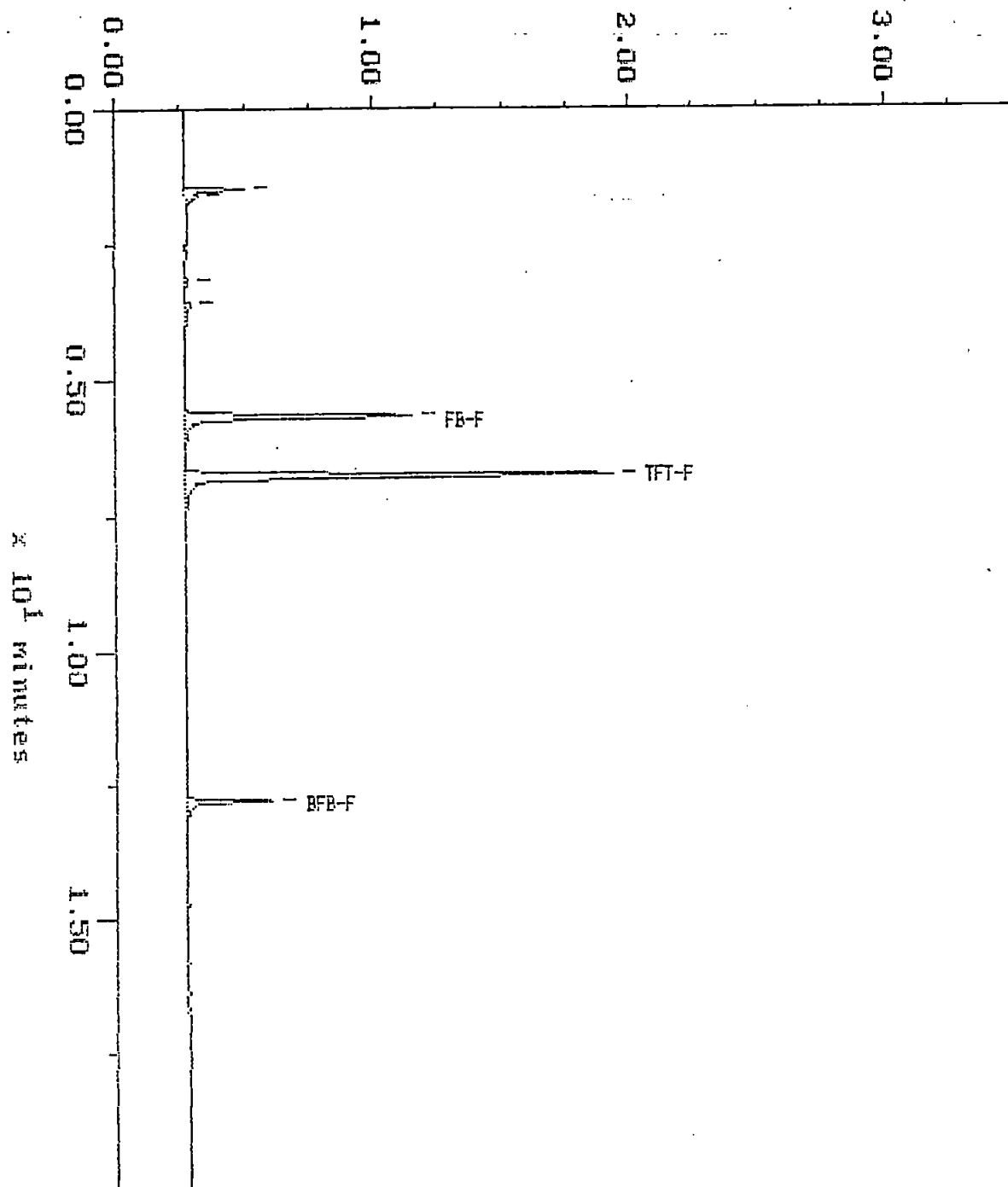
Blank

WA DOE WTPH-G

Sample: WRB 6-12 Channel: FID
Acquired: 12-JUN-95 9:46 Method: X:\MAXDATA\PICARD\061295PC
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.

Filename: R6129P03
Operator: ATI

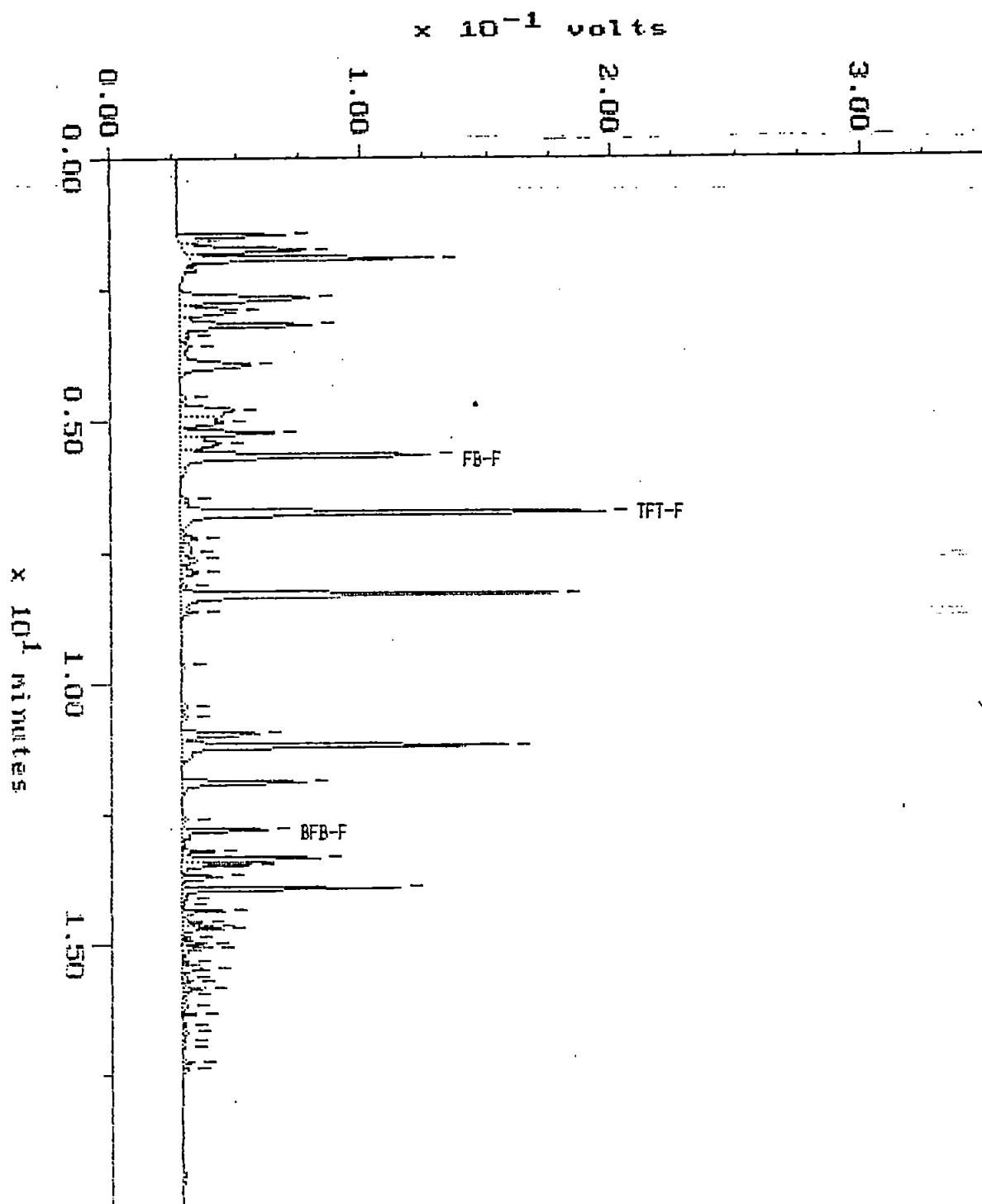
$\times 10^{-1}$ volts



CONTINUING CALIBRATION

Sample: STD-C 6 Channel: FID
Acquired: 09-JUN-95 8:55 Method: X:\MAXDATA\FICARD\060995PC
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.

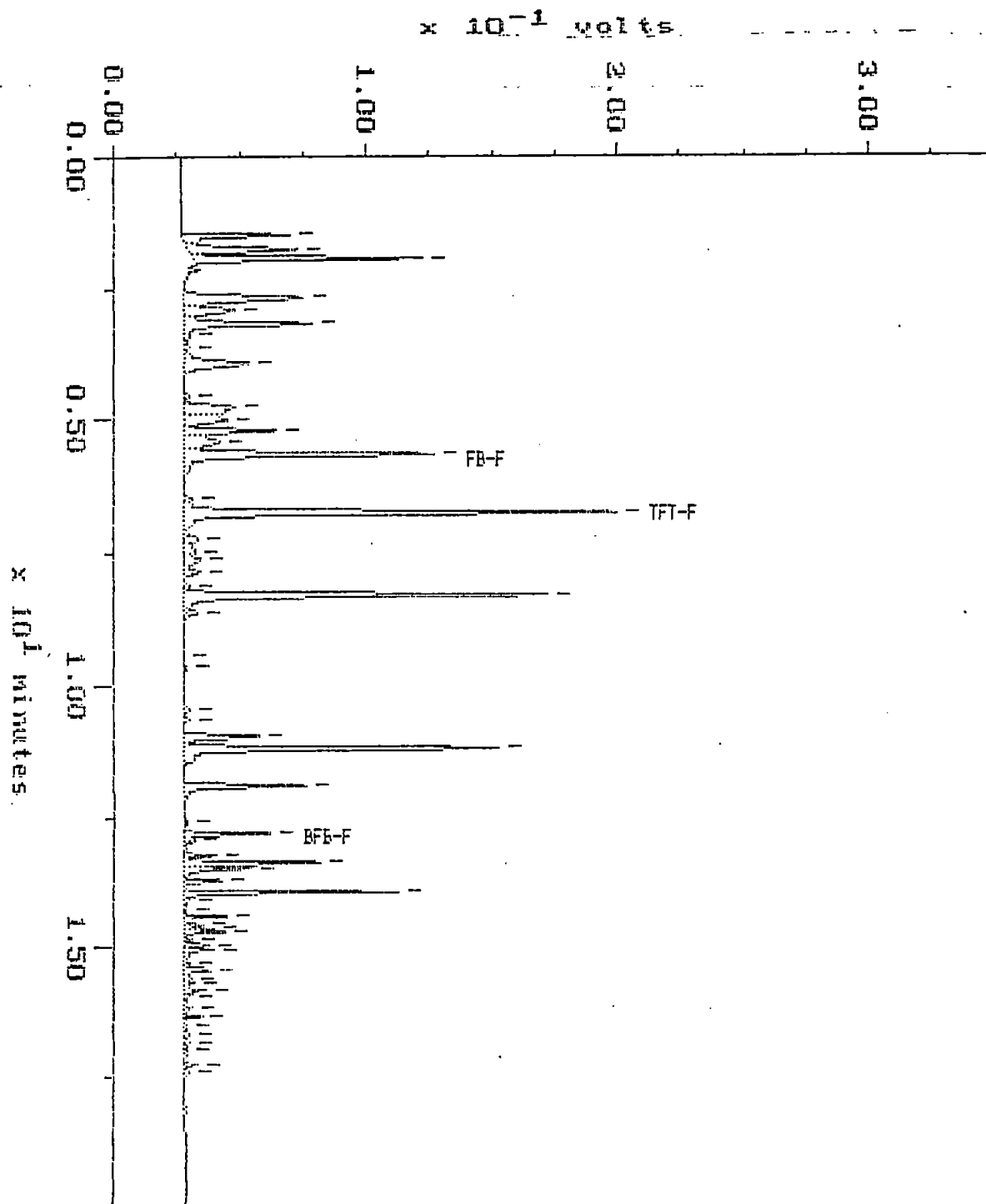
Filename: R6099P01
Operator: ATI



CONTINUING CALIBRATION

Sample: STD-C 6 Channel: FID
Acquired: 12-JUN-95 8:47 Method: X:\MAXDATA\PICARD\061295PC
Comments: ATI FUELS: A MISSION OF EXCELLENCE IN ANALYTICAL CHROMATOGRAPHY.

Filename: R6129P01
Operator: ATI





No.061381

Page 1 of 1

CONSULTANT'S NAME Chas. A. Gove & Assoc.		ADDRESS PO Box 3963		CITY Bellevue	STATE WA	ZIP CODE 98009
BP SITE NUMBER 11066		BP CORNER ADDRESS/CITY 24th + 148th, Bellevue			CONSULTANT PROJECT NUMBER 94081	
CONSULTANT PROJECT MANAGER Dave Cooper		PHONE NUMBER 451-1212		FAX NUMBER 451-8856		CONSULTANT CONTRACT NUMBER G342740
BP CONTACT Pete DeSantis		BP ADDRESS 295 SW 41st, Renton		PHONE NUMBER 251-8909		FAX NO. 451-0736
LAB CONTACT Toni Davly		LABORATORY ADDRESS 560 Naches, Renton		PHONE NUMBER 228-8335		FAX NO. 363-1742
SAMPLED BY (Please Print Name) Bill Dougherty		SAMPLED BY (Signature) Bill Dougherty		SHIPMENT DATE 6/9/95		SHIPMENT METHOD Courier
TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks				ANALYSIS REQUIRED		AIRBILL NUMBER

[illegible]

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
Bill Dougherty	6/8/95	16:30	x Brian L...	6/8/95	16:30	
Brian L...	6/9/95	9:45	Paul Kois 348	6/9/95	9:44	
Paul Kois 348	6/9/95	10:10	Brian L...	6/9/95	10:10	