DK – you have file.
DK

STID 1039

September 21, 1995

ENV - STUDIES, SURVEYS & REPORTS
Former Texaco Service Station
2225 Telegraph Avenue, Oakland, CA
Account No. 502-27801

Ms. Molly Ong
East Bay Municipal Utility District
Source Control Division, Mail Slot #702
P.O. Box 24055
375 11th Street,
Oakland, California 94623-1055

Dear Ms. Ong:

Concerning your letter dated September 18, 1995, Texaco would like to offer the following response.

Although it is acknowledged that neither Texaco nor its consultant, Groundwater Technology, Inc. (GTI) notified your office upon receipt of the erroneous analytical report for the April 6, 1995 sampling event, nevertheless, both Texaco and GTI maintain that no violation (i.e., discharge of petroleum hydrocarbons into the sewer system) occurred.

Therefore, we propose that only a Stage I violation for failure to report fee of $320 be imposed. In discussion with Mr. Tom Paulson, also with your office, on September 20, 1995, he agreed that both the Stage II and Laboratory fees could be waived in light of subsequent analytical results which are in favor of Texaco's claim that no permit discharge limitations were exceeded.

Concerning your request for a revised schematic flow diagram, it will be forwarded to you shortly.

Any questions regarding this information may be directed to me at (510) 236-9139.

Best Regards,

Karen E. Petryna
Project Coordinator
Texaco Environmental Services

KEP:hs
U:\...\2225\INFOCVR.MO
Enclosure

cc: Mr. Thomas Peacock
Alameda County
Hazardous Materials
1131 Harbor Bay Pkwy.
Alameda, CA 94502-6577

Mr. Tim Ross
Kaprealian Engineering Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520

Mr. Brian Garber
1401 Halyard Drive, Suite 140
West Sacramento, CA 95691

RAOFile-UCPFile
RRZielinski

PR RD

Texaco Refining
and Marketing Inc

September 11, 1995

SENT VIA OVERNIGHT MAIL

ENV - STUDIES, SURVEYS & REPORTS
Former Texaco Service Station
2225 Telegraph Avenue, Oakland, CA

Ms. Molly Ong
East Bay Municipal Utility District
Source Control Division, Mail Slot #702
P.O. Box 24055
375 11th Street,
Oakland, California 94623-1055

Dear Ms. Ong:

Enclosed is the response to the Violation Notice, dated September 6, 1995, for the subject site.

Regarding the enclosed,

I certify under penalty of law that, to the best of my knowledge, this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Hopefully, this response will clear up any remaining concerns regarding the Semi-Annual Self-Monitoring Report Summary, dated July 31, 1995 (cover letter dated August 14, 1995) which contained erroneous laboratory analysis without explanation. Texaco will endeavor to submit future reports to you by the established deadline. Any questions regarding this information may be directed to me at (510) 236-9139.

Best Regards,

Karen E. Petryna

Karen E. Petryna
Project Coordinator
Texaco Environmental Services

KEP:hs
U:\...\2225\INFOCVR.MO
Enclosure

cc: Mr. Thomas Peacock
Alameda County
Hazardous Materials
1131 Harbor Bay Pky
Alameda. CA 94502-6577

Mr. Tim Ross
Kaprealian Engineering Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520

Mr. Brian Garber - GTI (w/o enclos.)

RAOFile-UCPFile (w/enclosure)
RRZielinski (w/o enclosure)

PR

GROUNDWATER TECHNOLOGY, INC.

1401 Halyard Drive, Suite 140, West Sacramento, CA 95691, (916) 372-4700

FAX (916) 372-8781

September 8, 1995

Ms. Molly Ong
East Bay Municipal Utility District
P.O. Box 24055
Oakland, CA 94523-1055

Subject: **Notice of Violation at the Former Texaco Service Station**
No. 624880195
2225 Telegraph Ave., Oakland, California
Project No. 02070-0136

On behalf of Texaco Refining and Marketing and in response to the *Violation Notice* dated September 6, 1995, from East Bay Municipal Utility District (EBMUD), Groundwater Technology, Inc. has prepared this response addressing specific points of concern.

1) Cause of the violation

It is Groundwater Technology's professional opinion that the laboratory data were anomalous and do not indicate a violation in discharge limits for the following reasons:

- Analyses of the April 6, 1995 sample labeled as influent do not indicate detectable concentrations of benzene, toluene, ethylbenzene, xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPH-G) while the sample labeled as effluent reportedly contained 29 µg/L of benzene. Therefore, since there are no detectable influent concentrations then it is highly unlikely that a discharge of benzene to the sewer occurred, indicating that the analytical results are anomalous.

- Analyses of the April 6, 1995 sample labeled as effluent show only detectable concentrations of benzene. No detectable concentrations of ethybenzene, toluene, xylenes, or TPH-G were reported. Experience has shown that if the carbon vessels had broken through, other compounds would be detectable in addition to benzene. Therefore it is highly unlikely that carbon break through had occurred, again indicating that the analytical results are anomalous.

- The same carbon vessels have been on the site since before April 1994 and are still on site. The historical data prior and subsequent to the April 6, 1995 data indicate the carbon vessels have not broken through and are still functioning properly with no detectable concentrations of BTEX or TPH-G in effluent samples, also indicating that the April 6, 1995 analytical results are anomalous.

- It is impossible for the system to generate and discharge benzene within the last carbon vessel. No detectable concentrations of BTEX or TPH-G were reported in effluent samples, again indicating the April 6, 1995 analytical results are anomalous.

It is our assertion that the above four points constitute physical proof that no discharge of hydrocarbons has occurred to the sewer in excess of permit limits.

C:\DOCUMENT\TELEGRAP\EXCEED.LTR

2) The corrective actions being taken to prevent recurrence

The field technicians' and analytical laboratory's procedures have been repeatedly reviewed in order to locate potential sources of errors in analytical results. A review of Groundwater Technology's sampling procedures has been completed and no apparent source of contamination has been found. Speculation leads to the belief that cross contamination of the samples, sample equipment or analytical equipment occurred in the sampling or analytical process. In the future, Groundwater Technology will inform Texaco and EBMUD promptly upon the discovery of questionable laboratory data.

3) The date those corrective actions will be completed

The review of field procedures is an ongoing process and was completed prior to April 1, 1995 for this specific case.

4) Explanation for Texaco's failure to report the violation within 24 hours of becoming aware of the violation.

As stated in item number 1 above, no violation in effluent discharge limits has occurred thus, Texaco was not notified and, therefore, EBMUD was not notified.

5) Explanation for Texaco's failure to follow-up on the subject violation; there was no subsequent sample until June 6, 1995.

Again, no violation occurred with respect to discharge of water with concentrations of hydrocarbons above permitted limits. According to the permit, water samples are required quarterly. Water samples have been collected monthly to monitor carbon performance. Therefore the Texaco procedure for monitoring system performance is in excess of permit requirements. No samples were collected in May due to mechanical failure of one down-well pump and a pump regulator.

6) Explanation for the late Semi-Annual Self-Monitoring Report due July 31, 1995 and received by EBMUD on August 22, 1995.

Groundwater Technology mailed the Semi-Annual Self-Monitoring Report to Texaco on July 27, 1995. Further handling was conducted by Texaco upon their receipt of the report from us.

7) Description of modifications made to the groundwater treatment system and include a revised schematic flow diagram for the treatment system.

Mention was made of the modifications to the treatment compound in the Semi-Annual Report. Details of the modifications were not significant to the water treatment process thus were not included. The following lists changes to the treatment compound:

- Removed existing 2000-gallon batch tank
- Installed one 115-gallon oil/water separator with integral 120-gallon batch tank
- Removed first carbon vessel leaving two connected to system
- Moved carbon vessels, air compressor (which operates the down-well pumps) and oil/water separator into area formerly occupied by 2,000-gallon batch tank and arranged components for most efficient and compact use of space

- Reduced size of secondary containment such that it is just large enough to surround components and still contain 110 percent of the total of the system capacity, or approximately 900 gallons.
- Attached is an internal schematic diagram showing the new compound layout.

We have also included a revised Semi-Annual Report showing corrected units. In spite of that fact that Groundwater Technology did not notify Texaco or EBMUD of the erroneous report, there have been no discharge violations and, therefore, we feel that no fines are warranted.

If there are any questions please call Brian Garber at (916) 372-4700.

Sincerely,
Groundwater Technology, Inc.
Submitted by:

David N. Little
Staff Geologist

Groundwater Technology, Inc.
Approved by:

Brian Garber
Environmental Geologist
Project Manager

E.K. Simonis, R.G.
Senior Geologist

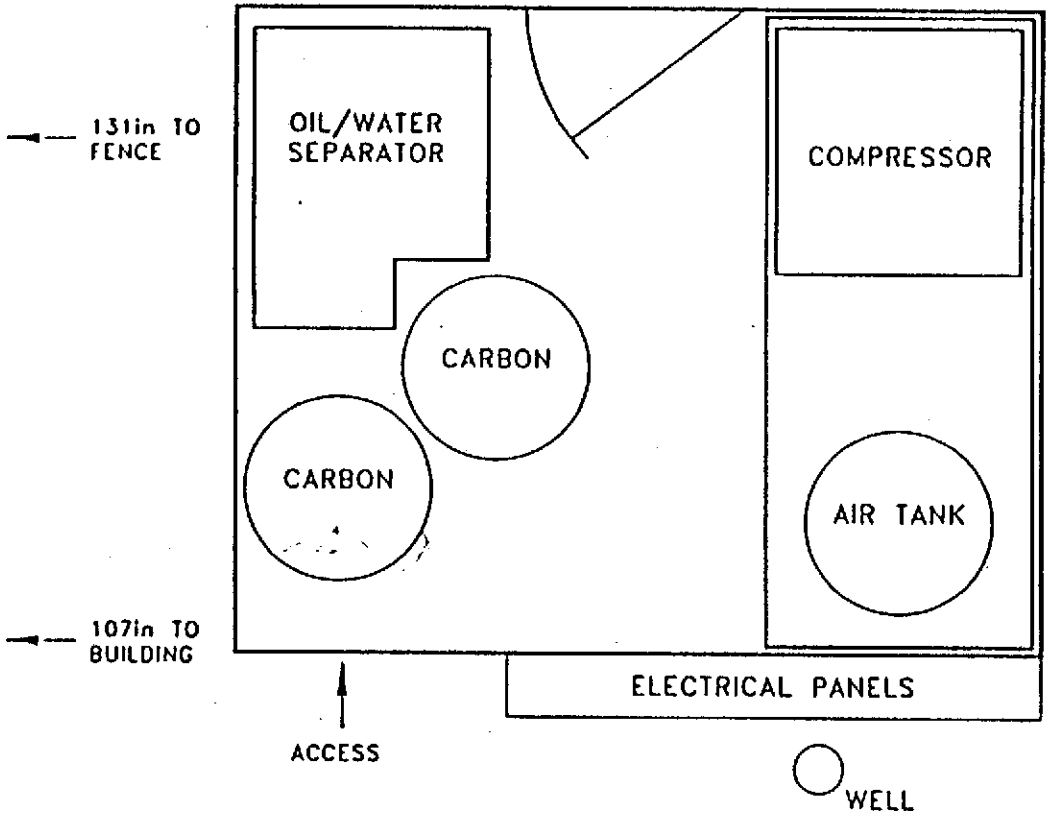
REGISTERED GEOLOGIST
EDVARDAS (ED) K. SIMONIS
No. 4422
STATE OF CALIFORNIA

c: Karen Petryna - Texaco Environmental Services

Attachments

C:\DOCUMENT\TELEGRAP\EXCEED.LTR

GROUNDWATER TECHNOLOGY ®



GROUNDWATER TECHNOLOGY	0 FEET 2 SCALE	CLIENT: TEXACO REFINING & MARKETING	AS-BUILT COMPOUND LAYOUT
FILE: LAYOUT	PROJECT NO.: 020700008	LOCATION: 2225 TELEGRAPH AVE. OAKLAND, CALIFORNIA	PM: / PE/RG: / FIGURE:
REV.: 1		DES.: CM / DET.: CY / DATE: 8/16/95	

GENERAL NPDES PERMIT NO. CA0024660
SELF MONITORING REPORT SUMMARY
DATE SAMPLED: MONTHLY JANUARY 05, 1995 THRU JUNE 06, 1995

Reporting Period:	*01/05/95 to 06/06/95*	Due Date:	*07/31/95*
Permittee:	*Texaco Environmental Services*	EBMUD File No:	*502-27801*
Site Name:	*Former Texaco Service Station*		
Site Address:	*2225 Telegraph, Oakland, CA*		
Company Contact:	*Karen Petryna*	Consultant:	*Groundwater Technology, Inc.*
Mailing Adddress:	*108 Cutting Boulevard*	Address:	*1401 Halyard Drive, Suite 140*
	Richmond, CA 94804		*West Sacramento, CA 95691*
Phone Number:	*(510) 236-9139*	Contact:	*Brian Garber*
		Phone Number:	*(916) 372-4700*

Any violation of waste discharge requirement during this period? Yes _____ No *X*
If yes, include attachment describing violation and corrective actions taken.

GROUNDWATER DISCHARGE DATA

Sample Location	Date	Flow Rate (gpm)	Totalizer Readings (gallons)	Cumulative Volume (gallons)
Effluent	01/05/95	3.3	464585	464585
	02/01/95	3.1	482234	482234
	03/95	—	—	*
	04/06/95	2.4	519325	519325
	05/95	—	—	*
	06/06/95	0.60	554064	554064

Combined Average Flow Rate from 01/05/95 to 06/06/95: 1.57

Total Volume of Discharged Groundwater as of 06/06/95: 89479

REVISED SEMI-ANNUAL REPORTING

Sample Location	Date	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	TPH-G (ppb)
Influent	01/05/95	24	4.4	3.4	24	440
	02/01/95	12	3.2	1.5	20	340
	03/95	—	—	—	—	—
	04/06/95	ND	ND	ND	ND	ND
	05/95	—	—	—	—	—
	06/06/95	ND	ND	ND	ND	ND
Effluent	01/05/95	—	—	—	—	—
	02/01/95	—	—	—	—	—
	03/95	—	—	—	—	—
	04/06/95	29	ND	ND	ND	ND
	05/95	—	—	—	—	—
	06/06/95	ND	ND	ND	4.0	ND
BT-2	01/05/95	ND	ND	0.54	2.3	100
	02/01/95	5.1	ND	ND	ND	ND
BT-1 *	03/95	—	—	—	—	—
*	04/06/95	14	1.9	0.86	14	150
*	05/95	—	—	—	—	—
	06/06/95	ND	ND	ND	ND	ND

BT-2 = Sample port between carbon drums.

business was ND for influent

Explanation:
TPG-G = Total petroleum hydrocarbons-as-gasoline
--- = Not Analyzed
gpm = Gallons per minute
pgd = Gallons per day
NM = Not measured
ppb = Parts per billion
N/A = Not applicable
umhos/cm = Micromhos per centimeter
g/day = Grams per day
ND = Not detected

Note * March 03, 1995 thru March 27, 1995. System shut off for system modification. System was modified to, two carbon system B-2 has been relabled to B-1.

* May 03,1995 thru May 23, 1995. System down due to bad filter and and fouled pump.

Company : Groundwater Technology, Inc.

Signature: _____ Date: 9/7/95

Brian H. Garber
Project Manager

SATEL795.WK4 (TES-01)

GROUNDWATER TECHNOLOGY

P16
-TO 1039

ENVIRONMENTAL PROTECTION

95 AUG 30 PM 2:26

August 14, 1995

ENV - STUDIES, SURVEYS & REPORTS
Former Texaco Service Station
2225 Telegraph Avenue, Oakland, CA

Ms. Molly Ong
East Bay Municipal Utility District
Source Control Division, Mail Slot #702
P.O. Box 24055
375 11th Street,
Oakland, California 94623-1055

Dear Ms. Ong:

Enclosed is the Semi-Annual Self-Monitoring Report Summary, dated July 31, 1995, for the subject site.

Regarding the above-referenced report,

I certify under penalty of law that, to the best of my knowledge, this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Any questions regarding this report may be directed to me at (510) 236-9139.

Best Regards,

Karen E. Petryna
Project Coordinator
Texaco Environmental Services

KEP:eg
P:\COVERS\KEPCVRS\2225SEMI.CVR

Enclosure

cc: Mr. Thomas Peacock
Alameda County Environmental Health Department
80 Swan Way, Room 200
Oakland, CA 94621

Mr. Tim Ross
Kaprealian Engineering Inc.
2401 Stanwell Drive, Suite 400
Concord, CA 94520

Mr. Michael Faber - Exxon

RAOFile-UCPFile (w/enclosure)
RRZielinski (w/o enclosure)

PR

GENERAL NPDES PERMIT NO. CA0024660
SELF MONITORING REPORT SUMMARY
DATE SAMPLED: MONTHLY JANUARY 05, 1995 THRU JUNE 06, 1995

Reporting Period:	*01/05/95 to 06/06/95*	Due Date:	*07/31/95*
Permittee:	*Texaco Environmental Services*	EBMUD File No:	*502-27801*
Site Name:	*Former Texaco Service Station*		
Site Address:	*2225 Telegraph, Oakland, CA*		
Company Contact:	*Karen Petryna*	Consultant:	*Groundwater Technology, Inc.*
Mailing Adddress:	*108 Cutting Boulevard*	Address:	*1401 Halyard Drive, Suite 140*
	Richmond, CA 94804		*West Sacramento, CA 95691*
Phone Number:	*(510) 236-9139*	Contact:	*Brian Garber*
		Phone Number:	*(916) 372-4700*

Any violation of waste discharge requirement during this period? Yes _____ No *X*
If yes, include attachment describing violation and corrective actions taken.

GROUNDWATER DISCHARGE DATA

Sample Location	Date	Flow Rate (gpm)	Totalizer Readings (gallons)	Cumulative Volume (gallons)
Effluent	01/05/95	3.3	464585	464585
	02/01/95	3.1	482234	482234
	03/95	---	---	*
	04/06/95	2.4	519325	519325
	05/95	---	---	*
	06/06/95	0.60	554064	554064

Combined Average Flow Rate from 01/05/95 to 06/06/95: 1.57

Total Volume of Discharged Groundwater as of 06/06/95: [illegible]

SEMI-ANNUAL REPORTING

Sample Location	Date	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	TPH-G (ppm)
Influent	01/05/95	24	4.4	3.4	24	440
	02/01/95	12	3.2	1.5	20	340
	03/95	---	---	---	---	---
	04/06/95	ND	ND	ND	ND	ND
	05/95	---	---	---	---	---
	06/06/95	ND	ND	ND	ND	ND
Effluent	01/05/95	---	---	---	---	---
	02/01/95	---	---	---	---	---
	03/95	---	---	---	---	---
	04/06/95	29	ND	ND	ND	ND
	05/95	---	---	---	---	---
	06/06/95	ND	ND	ND	4.0	ND
BT-2	01/05/95	ND	ND	0.54	2.3	100
	02/01/95	5.1	ND	ND	ND	ND
BT-1 *	03/95	---	---	---	---	---
*	04/06/95	14	1.9	0.86	14	150
*	05/95	---	---	---	---	---
	06/06/95	ND	ND	ND	ND	ND

BT-2 = Sample port between carbon drums.

Explanation:
TPG-G = Total petroleum hydrocarbons-as-gasoline
--- = Not Analyzed
gpm = Gallons per minute
pgd = Gallons per day
NM = Not measured
ppb = Parts per billion
N/A = Not applicable
umhos/cm = Micromhos per centimeter
g/day = Grams per day
ND = Not detected

Note * March 03, 1995 thru March 27, 1995. System shut off for system modification. System was modified to, two carbon system B-2 has been relabled to B-1.

* May 03,1995 thru May 23, 1995. System down due to bad filter and and fouled pump.

Company : Groundwater Technology, Inc.

Signature: _____ Date: 7/23/95

Brian H. Garber
Project Manager

SATEL795.WK4 (TES-01)

SITE VISITATION FORM
FOR
WASTEWATER DISCHARGE SAMPLING
SYSTEM OPERATION AND MAINTENANCE

2225 Telegraph, Oakland
Site Address

Sampled By: Mark Czipka Date: 1/5/95

SYSTEM CHECK / READINGS

If Applicable	Yes	No	N/A
Is System Operational	✓		
2nd Contain. Float Switch Working	✓		
Adjust Flow Rate		✓	
Filter Checked ~~and Cleaned~~	✓		
Strainer Checked and Cleaned	✓		
Check/Add Water Conditioner			✓
Calibrate LEL			✓

	N/A	Field Data
Effluent Totalizer (gal)		0464585
Effluent Flow Rate (gpm)		3.3
Aeration Pressure (psi)	✓	
Bag Filter INFL Pressure (psi)	✓	
Bag Filter EFFL Pressure (psi)	✓	
Carbon Vessel #1 Pressure (psi)		6
Carbon Vessel #2 Pressure (psi)	✓	
Air Compressor Pressure (psi)	100	
Hour Meter (hours) Compressor		02730.3

SYSTEM SAMPLING

	Sample Point INF	Sample Point BT-2	Sample Point	Sample Point
Temperature (F)	Not Req'd	Not Req'd		
pH (units)				
Dissovlved O_2 (ppm)				
Electrical Conductivity				

WELL READINGS

	Well # R1	Well # R2	Well # Totalizer	Well #
Flow Totalizer (gpm)	0570383.0	0793808.5	0464585	Discrepency
~~Flow Rate (gpm)~~ Calculated	0.43	0.32	0.42	R1+R2= 0.75
~~Hour Meter (hours)~~ gals since last visit	9330	6836	9155	R1+R2= 169.86
DTW from TOC (ft)				

SITE VISITATION FORM
FOR
WASTEWATER DISCHARGE SAMPLING
SYSTEM OPERATION AND MAINTENANCE

2225 Telegraph, Oakland
Site Address

Sampled By: Mark Czipka

Date: 2/1/95

SYSTEM CHECK / READINGS

If Applicable	Yes	No	N/A
Is System Operational		✓	
2nd Contain. Float Switch Working	✓		
Adjust Flow Rate		✓	
Filter Checked ~~and Cleaned~~	✓		
Strainer Checked and Cleaned	✓		
Check/Add Water Conditioner			✓
Calibrate LEL			✓

Secondary Containment Full.

	N/A	Field Data
Effluent Totalizer (gal)		0482234
Effluent Flow Rate (gpm)		3.1
Aeration Pressure (psi)	✓	
Bag Filter INFL Pressure (psi)	✓	
Bag Filter EFFL Pressure (psi)	✓	
Carbon Vessel #1 Pressure (psi)		5
Carbon Vessel #2 Pressure (psi)	✓	
Air Compressor Pressure (psi)		140
Hour Meter (hours)		2856

SYSTEM SAMPLING

Sampled before pumping rainwater into batch tank.

	Sample Point INF	Sample Point BT-2	Sample Point	Sample Point
Temperature (F)	Not Req'd	Not Req'd		
pH (units)	↓	↓		
Dissovlved O_2 (ppm)	↓	↓		
Electrical Conductivity	↓	↓		

WELL READINGS

	Well # R1	Well # R2	Well # Totalizer	Well #
Flow Totalizer (gpm)	Not Available	Not Available	0482234	
Flow Rate (gpm)	↓	↓		
gal since last visit ~~Hour Meter (hours)~~	—	—	6487	
[illegible]	—	—	→ 0.3 GPM	

SITE VISITATION FORM
FOR
WASTEWATER DISCHARGE SAMPLING
SYSTEM OPERATION AND MAINTENANCE

2225 Telegraph, Oakland
Site Address

Sampled By: Mark N Czipko Date: 4/6/95

SYSTEM CHECK / READINGS

If Applicable	Yes	No	N/A
Is System Operational	X		
2nd Contain. Float Switch Working	X		
Adjust Flow Rate		X	
Filter Checked and Cleaned			X
Strainer Checked and Cleaned			X
Check/Add Water Conditioner			X
Calibrate LEL			X

	N/A	Field Data
Effluent Totalizer (gal)		0519325
Effluent Flow Rate (gpm)		2.4
Aeration Pressure (psi)	X	
Bag Filter INFL Pressure (psi)	X	
Bag Filter EFFL Pressure (psi)	X	
Carbon Vessel #1 Pressure (psi)	X	
Carbon Vessel #2 Pressure (psi)	X	
Air Compressor Pressure (psi)		130
Hour Meter (hours) Comp.		3061

SYSTEM SAMPLING

	Sample Point INF	Sample Point BT-1	Sample Point EFF	Sample Point
Temperature (F)	NOT REQ'D	NOT REQ'D	NOT REQ'D	
pH (units)	↓	↓	↓	
Dissovived O_2 (ppm)	↓	↓	↓	
Electrical Conductivity	↓	↓	↓	

WELL READINGS

	Well # R1	Well # R2	Well #	Well #
Flow Totalizer (gpm)	0570383	Not Accesable		
Flow Rate (gpm)				
Hour Meter (hours)				
DTW from TOC (ft)				

SITE VISITATION FORM
FOR
WASTEWATER DISCHARGE SAMPLING
SYSTEM OPERATION AND MAINTENANCE

SYSTEM DOWN
NEEDS TO HAVE ITS FILTERS REPLACED ON THE COMPRESSOR

2225 TELEGRAPH, OAKLAND
Site Address

Sampled By: STEVEN STREM

Date: 6/6/95

SYSTEM CHECK / READINGS

If Applicable	Yes → FOR SAMPLE	No - NEEDS TO BE DONE	N/A
Is System Operational	X	X	
2nd Contain. Float Switch Working	X		
Adjust Flow Rate		X	
Filter Checked and Cleaned			X
Strainer Checked and Cleaned			X
Check/Add Water Conditioner			X
Calibrate LEL			X

	N/A	Field Data
Effluent Totalizer (gal)		0554064 ?
Effluent Flow Rate (gpm)		.60 gpm
Aeration Pressure (psi)	X	
Bag Filter INFL Pressure (psi)	X	
Bag Filter EFFL Pressure (psi)	X	
Carbon Vessel #1 Pressure (psi)	X	
Carbon Vessel #2 Pressure (psi)	X	
Air Compressor Pressure (psi)		115
Hour Meter (hours) Comp		03241.8

UPON ARRIVAL COMPRESSOR WAS DOWN DUE TO HIGH TEMP BREAKER. I RESET THE SYSTEM AND ADJUSTED HIGH TEMP LIMIT FROM 185° TO 200° SYSTEM TEMP ~~WAS~~ WAS @ 1110 ~~DEPARTURE FROM THE SITE~~ WAS 135°

SYSTEM SAMPLING

I TALKED W/ MARK C. AND HE SAID IT NEEDED A FILTER SO WE AGREED THAT IF THE COMP WAS ~~BEING~~ USING OIL TO SHUT IT DOWN. WHICH I DID

FOR THE COMPRESSOR

	Sample Point INF	Sample Point BT-1	Sample Point EFF	Sample Point
Temperature (F)	NOT REQ'D	NOT REQ'D	NOT REQ'D	
pH (units)				
Dissolved O_2 (ppm)				
Electrical Conductivity				

WELL READINGS

	Well # R1	Well # R2	Well #	Well #
Flow Totalizer (gpm)	0570385	0856978		
Flow Rate (gpm)	TOTALIZER NOT			
Hour Meter (hours)	WORKING.			
DTW from TOC (ft)				

B C Analytical

801 Western Avenue
Glendale, CA 91201
818/247-5737
Fax: 818/247-9797

ANALYTICAL REPORT

LOG NO: G95-01-102
Received: 05 JAN 95
Mailed:

Purchase Order: 94-1446346+4370
Requisition: 624880195
Project: FKEP1015L

Mr. Brian Garber
Groundwater Technology, Inc.
1401 Halyard Drive, Suite 140
West Sacramento, California 95691

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020) Date Analyzed	Dilution Factor Times	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L	
RDL			1		0.5	0.5	0.5	0.5	
1*INF	01/05/95	01/19/95	1	440	24	4.4	3.4	24	
2*BT-2	01/05/95	01/19/95	1	100	<0.5	<0.5	0.54	2.3	

Karen Petryna
2225 Telegraph Ave., Oakland
Alameda County

Mark A. Valentini, PhD, Laboratory Director

: ORDER PLACED FOR CLIENT: Groundwater Technology, Inc. 9501102 :
: BC ANALYTICAL : GLEN LAB : 14:27:05 20 JAN 1995 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9501102*1	INF	GAS.BTX.TESNC	01.19.95	8015M.TX	516-20	958079	8658
9501102*2	BT-2	GAS.BTX.TESNC	01.19.95	8015M.TX	516-20	958079	8658

***

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

BC ANALYTICAL

ORDER QC REPORT FOR G9501102

ATE REPORTED : 01/20/95

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
. TPH-gas/BTEX (CADHS/80 C5011939*1						
Date Analyzed	01.18.95	958079	01/18/95	01/18/95	Date	N/A
Benzene	01.18.95	958079	15.5	12.5	ug/L	124
Toluene	01.18.95	958079	55.0	55.5	ug/L	99
Ethylbenzene	01.18.95	958079	11.8	12.5	ug/L	94
Total Xylene Isomers	01.18.95	958079	63.2	66.5	ug/L	95
TPH (as Gasoline)	01.18.95	958079	1100	1000	ug/L	110

BC ANALYTICAL

ORDER QC REPORT FOR G9501102

ATE REPORTED : 01/20/95

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. TPH-gas/BTEX (CADHS/80	9501126*13						
Date Analyzed		01.19.95	958079	01/19/95	01/19/95	Date	N/A
Benzene		01.19.95	958079	16.1	16.9	ug/L	5
Toluene		01.19.95	958079	57.2	59.6	ug/L	4
Ethylbenzene		01.19.95	958079	12.9	14.1	ug/L	9
Total Xylene Isomers		01.19.95	958079	64.7	67.7	ug/L	5
TPH (as Gasoline)		01.19.95	958079	1030	1160	ug/L	12

BC ANALYTICAL

ORDER QC REPORT FOR G9501102

ATE REPORTED : 01/20/95

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %		MSD %		TRUE RESULT	UNIT	
. TPH-gas/BTEX (CADHS/80	9501126*13									
Benzene		01.19.95	958079	129	Q	135	Q	12.5	ug/L	Q
Toluene		01.19.95	958079	103		107		55.5	ug/L	
Ethylbenzene		01.19.95	958079	103		113		12.5	ug/L	
Total Xylene Isomers		01.19.95	958079	97		102		66.5	ug/L	
TPH (as Gasoline)		01.19.95	958079	103		116		1000	ug/L	

BC ANALYTICAL

ORDER QC REPORT FOR G9501102

ATE REPORTED : 01/20/95

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
. TPH-gas/BTEX (CADHS/80 B5011031*1						
Date Analyzed	01.18.95	958079	01/18/95	NA	Date	8015M.TX
Benzene	01.18.95	958079	0	0.5	ug/L	8015M.TX
Toluene	01.18.95	958079	0.32	0.5	ug/L	8015M.TX
Ethylbenzene	01.18.95	958079	0	0.5	ug/L	8015M.TX
Total Xylene Isomers	01.18.95	958079	0	0.5	ug/L	8015M.TX
TPH (as Gasoline)	01.18.95	958079	27	50	ug/L	8015M.TX

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 14:27:41 20 JAN 1995 - P. 1 :

ETHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
501102*1							
3015M.TX	a,a,a-Trifluorotoluene	958079	01/19/95	47.8	50.0	96	
501102*2							
3015M.TX	a,a,a-Trifluorotoluene	958079	01/19/95	48.7	50.0	97	

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 14:27:45 20 JAN 1995 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9501126*13*R1							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/19/95	49.3	50.0	99	
9501126*13*S1							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/19/95	51.3	50.0	103	
9501126*13*S2							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/19/95	52.8	50.0	106	
9501126*13*T							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/19/95	50.0	50.0	100	
B5011031*1*MB							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/18/95	46.9	50.0	94	
C5011939*1*LC							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/18/95	50.0	50.0	100	
C5011939*1*LT							
8015M.	TXa,a,a-Trifluorotoluene	958079	01/18/95	50.0	50.0	100	

CHAIN OF CUSTODY RECORD

BCA Log Number

Client name	Ground Water Technology, Inc.
Address	1401 Halyard Suite 140
City, State, Zip	West Sacramento, CA
Project or PO#	020200008.051005
Phone #	(916) 372-4700
Report attention	Brian Garber

Sampled by: Mark Czipka

Page 1 of 1

Lab sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	BTEX, TPH as Gas	Hazardous sample Special handling required	Remarks
	11/5/95	10:37	GW	INF	2	X		
	1	10:40	GW	BT-2	2	X		

Analyses required

Relinquished by / Received by / Relinquished by / Received by / Relinquished by / Received by Laboratory	Signature	Print Name	Company	Date	Time
Relinquished by	MCM	Mark N Czipka	Ground Water Ground Water Technology	11/5/95	14:27
Received by	Jan Winder	Jan Winder	BCA	11/5/95	14:27
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

1085 Shary Circle, Concord, CA 94518 (510) 825-3864

1801 Western Avenue, Glendale, CA 91201 (818) 247-5737

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: _____

*KEY: AG--Aqueous NA Nonaqueous SL Sludge
GW--Groundwater SO- Soil PE Petroleum

B C Analytical

801 Western Avenue
Glendale, CA 91201
818/247-5737
Fax: 818/247-9797

ANALYTICAL REPORT

LOG NO: G95-02-020

Received: 01 FEB 95

Mailed: FEB 14 [illegible]

Purchase Order: 94-1446346+4370

Requisition: 624880195
Project: FKEP1015L

Mr. Brian Garber
Groundwater Technology, Inc.
1401 Halyard Drive, Suite 140
West Sacramento, California 95691

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020) Date Analyzed	Dilution Factor Times	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L
RDL			1		0.5	0.5	0.5	0.5
1*INF	02/01/95	02/05/95	1	340	12	3.2	1.5	20
2*BT-2	02/01/95	02/05/95	1	<50	5.1	<0.5	<0.5	<0.5

Karen Petryna
2225 Telegraph Ave., Oakland
Alameda County

Mark A. Valentini, PhD, Laboratory Director

ORDER PLACED FOR CLIENT: Groundwater Technology, Inc. 9502020 :
BC ANALYTICAL : GLEN LAB : 13:43:29 13 FEB 1995 - P. 1 :

\MPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
502020*1	INF	GAS.BTX.TESNC	02.05.95	8015M.TX	516-20	958092	8658
502020*2	BT-2	GAS.BTX.TESNC	02.05.95	8015M.TX	516-20	958092	8658

**

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

BC ANALYTICAL

ORDER QC REPORT FOR G9502020

DATE REPORTED : 02/13/95

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. TPH-gas/BTEX (CADHS/80 C5021056*1						
Date Analyzed	02.04.95	958092	02/04/95	02/04/95	Date	N/A
Benzene	02.04.95	958092	13.9	12.5	ug/L	111
Toluene	02.04.95	958092	50.9	55.5	ug/L	92
Ethylbenzene	02.04.95	958092	11.6	12.5	ug/L	93
Total Xylene Isomers	02.04.95	958092	58.7	66.5	ug/L	88
TPH (as Gasoline)	02.04.95	958092	902	1000	ug/L	90

BC ANALYTICAL

ORDER QC REPORT FOR G9502020

ATE REPORTED : 02/13/95

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
. TPH-gas/BTEX (CADHS/80	9501481*5						
Date Analyzed		02.05.95	958092	02/05/95	02/05/95	Date	N/A
Benzene		02.05.95	958092	14.8	14.0	ug/L	6
Toluene		02.05.95	958092	55.5	52.4	ug/L	6
Ethylbenzene		02.05.95	958092	12.2	11.8	ug/L	3
Total Xylene Isomers		02.05.95	958092	61.5	59.0	ug/L	4
TPH (as Gasoline)		02.05.95	958092	944	924	ug/L	2

BC ANALYTICAL

ORDER QC REPORT FOR G9502020

ATE REPORTED : 02/13/95

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
TPH-gas/BTEX (CADHS/80 9501481*5							
Benzene		02.05.95	958092	118	112	12.5	ug/L
Toluene		02.05.95	958092	100	94	55.5	ug/L
Ethylbenzene		02.05.95	958092	98	94	12.5	ug/L
Total Xylene Isomers		02.05.95	958092	92	89	66.5	ug/L
TPH (as Gasoline)		02.05.95	958092	94	92	1000	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR G9502020

ATE REPORTED : 02/13/95

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
. TPH-gas/BTEX (CADHS/80 B502554*1						
Date Analyzed	02.04.95	958092	02/04/95	NA	Date	8015M.TX
Benzene	02.04.95	958092	0	0.5	ug/L	8015M.TX
Toluene	02.04.95	958092	0	0.5	ug/L	8015M.TX
Ethylbenzene	02.04.95	958092	0	0.5	ug/L	8015M.TX
Total Xylene Isomers	02.04.95	958092	0	0.5	ug/L	8015M.TX
TPH (as Gasoline)	02.04.95	958092	32	50	ug/L	8015M.TX

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 13:43:57 13 FEB 1995 - P. 1 :

ETHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
502020*1							
015M.TX	a,a,a-Trifluorotoluene	958092	02/05/95	46.4	50.0	93	
502020*2							
015M.TX	a,a,a-Trifluorotoluene	958092	02/05/95	45.0	50.0	90	

SURROGATE RECOVERIES :
BC ANALYTICAL : GLEN LAB : 13:44:01 13 FEB 1995 - P. 1 :

ETHOD ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
501481*5*R1						
015M.TXa,a,a-Trifluorotoluene	958092	02/05/95	45.0	50.0	90	
501481*5*S1						
015M.TXa,a,a-Trifluorotoluene	958092	02/05/95	47.8	50.0	96	
501481*5*S2						
015M.TXa,a,a-Trifluorotoluene	958092	02/05/95	47.8	50.0	96	
501481*5*T						
015M.TXa,a,a-Trifluorotoluene	958092	02/05/95	50.0	50.0	100	
502554*1*MB						
015M.TXa,a,a-Trifluorotoluene	958092	02/04/95	45.8	50.0	92	
5021056*1*LC						
015M.TXa,a,a-Trifluorotoluene	958092	02/04/95	46.5	50.0	93	
5021056*1*LT						
015M.TXa,a,a-Trifluorotoluene	958092	02/04/95	50.0	50.0	100	

CHAIN OF CUSTODY RECORD

BCA Log Number: 9502-446

Client name	GroundWater Technology Inc.
Project or PO#	020700008.051005
Address	1401 Halyard Suite 140
Phone #	(916) 372-4700
City, State, Zip	West Sacramento, CA
Report attention	Brian Garber
Sampled by	Mark Czipka

Analyses required: BTEX, TPH as G; Hazardous sample / Special handling required

Pg 1 of 1

Lab sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	BTEX, TPH as G	Hazardous sample / Special handling required	Remarks
	2/1/95	12:20	GW	INF	2	X	- 1	Preserved w/ HCL
	↓	12:22	↓	BT-2	2	X	- 2	↓

Remarks (continued): 604 020195 / Alameda Cty. / EKGP 1015 / KGP

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Mark N Czipka	GroundWater Technology, Inc	2/1/95	1400
Received by	J. Winter	Jan Winter	BCA	2/1/95	1400
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

☒ 1085 Shary Circle, Concord, CA 94518 (510) 825-3894
☐ 1401 Western Avenue, Glendale, CA 91201 (818) 247-5737

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements:

*KEY: AQ—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil PE—Petroleum

B C Analytical

801 Western Avenue
Glendale, CA 91201
818/247-5737
Fax: 818/247-9797

ANALYTICAL REPORT

LOG NO: G95-04-099
Received: 07 APR 95
Mailed: APR 19 1995

Mr. Brian Garber
Groundwater Technology, Inc.
1401 Halyard Drive, Suite 140
West Sacramento, California 95691

Purchase Order: 94-1446346+4370
Requisition: 624881095
Project: FKEP1015L

REPORT OF ANALYTICAL RESULTS

AQUEOUS

SAMPLE DESCRIPTION	DATE SAMPLED	TPH/BTEX (CADHS/8020) Date Analyzed Date	Dilution Factor Times	TPH-g ug/L	Benzene ug/L	Toluene ug/L	Ethyl-Benzene ug/L	Total Xylenes Isomers ug/L
RDL			1	50	0.5	0.5	0.5	0.5
1*INF	04/06/95	04/14/95	1	<50	<0.5	<0.5	<0.5	<0.5
2*BT-1	04/06/95	04/14/95	1	150	14	1.9	0.86	14
3*EFF	04/06/95	04/14/95	1	<50	29	<0.5	<0.5	<0.5

Karen Petryna
2225 Telegraph, Oakland
Alameda County
Sample ID and data were checked to confirm the presence of benzene in the Effluent and the less than detection limit level of benzene in the Influent.
J. Winter, 4/18/95

Jane Freemyer, Program Manager

ORDER PLACED FOR CLIENT: Groundwater Technology, Inc. 9504099 :
BC ANALYTICAL : GLEN LAB : 16:27:32 18 APR 1995 - P. 1 :

AMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
504099*1	INF	GAS.BTX.TESNC	04.14.95	8015M.TX	536-23	95538	8042
504099*2	BT-1	GAS.BTX.TESNC	04.14.95	8015M.TX	536-23	95538	8042
504099*3	EFF	GAS.BTX.TESNC	04.14.95	8015M.TX	536-23	95538	8042

***

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

BC ANALYTICAL

ORDER QC REPORT FOR G9504099

DATE REPORTED : 04/18/95

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. TPH (8015M/8020)	C5041410*1					
Date Analyzed	04.14.95	95538	04/14/95	04/14/95	Date	N/A
Benzene	04.14.95	95538	15.7	15.2	ug/L	103
Toluene	04.14.95	95538	84.5	97.4	ug/L	87
Ethylbenzene	04.14.95	95538	18.8	20.4	ug/L	92
Total Xylene Isomers	04.14.95	95538	97.5	119	ug/L	82
TPH (Gasoline Range)	04.14.95	95538	1150	1100	ug/L	105
2. TPH (8015M/8020)	C5041411*1					
Date Analyzed	04.14.95	95538	04/14/95	04/14/95	Date	N/A
Benzene	04.14.95	95538	16.0	15.2	ug/L	105
Toluene	04.14.95	95538	86.0	97.4	ug/L	88
Ethylbenzene	04.14.95	95538	18.3	20.4	ug/L	90
Total Xylene Isomers	04.14.95	95538	99.2	119	ug/L	83
TPH (Gasoline Range)	04.14.95	95538	1140	1100	ug/L	104

BC ANALYTICAL

ORDER QC REPORT FOR G9504099

)ATE REPORTED : 04/18/95

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

?ARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
1. TPH (8015M/8020)							
Date Analyzed		04.14.95	95538	04/14/95	04/14/95	Date	N/A
Benzene		04.14.95	95538	15.7	16.0	ug/L	2
Toluene		04.14.95	95538	84.5	86.0	ug/L	2
Ethylbenzene		04.14.95	95538	18.8	18.3	ug/L	3
Total Xylene Isomers		04.14.95	95538	97.5	99.2	ug/L	2
TPH (Gasoline Range)		04.14.95	95538	1150	1140	ug/L	1

BC ANALYTICAL

ORDER QC REPORT FOR G9504099

DATE REPORTED : 04/18/95

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
1. TPH (8015M/8020)	9504085*12						
Benzene		04.14.95	95538	122	111	15.2	ug/L
Toluene		04.14.95	95538	105	94	97.4	ug/L
Ethylbenzene		04.14.95	95538	106	97	20.4	ug/L
Total Xylene Isomers		04.14.95	95538	94	86	119	ug/L
TPH (Gasoline Range)		04.14.95	95538	105	102	1100	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR G9504099

)ATE REPORTED : 04/18/95

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. TPH (8015M/8020)	9504085*12						
Date Analyzed		04.14.95	95538	04/14/95	04/14/95	Date	N/A
Benzene		04.14.95	95538	18.6	16.8	ug/L	10
Toluene		04.14.95	95538	102	91.8	ug/L	11
Ethylbenzene		04.14.95	95538	21.7	19.7	ug/L	10
Total Xylene Isomers		04.14.95	95538	112	102	ug/L	9
TPH (Gasoline Range)		04.14.95	95538	1150	1120	ug/L	3

BC ANALYTICAL

ORDER QC REPORT FOR G9504099

DATE REPORTED : 04/18/95

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
1. TPH (8015M/8020)	B504804*1					
Date Analyzed	04.14.95	95538	04/14/95	NA	Date	8015M.TX
Benzene	04.14.95	95538	0	0.5	ug/L	8015M.TX
Toluene	04.14.95	95538	0	0.5	ug/L	8015M.TX
Ethylbenzene	04.14.95	95538	0	0.5	ug/L	8015M.TX
Total Xylene Isomers	04.14.95	95538	0	0.5	ug/L	8015M.TX
TPH (Gasoline Range)	04.14.95	95538	0	50	ug/L	8015M.TX

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 16:27:04 18 APR 1995 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9504099*1							
8015M.	TXa,a,a-Trifluorotoluene	95538	04/14/95	51.0	50.0	102	
9504099*2							
8015M.	TXa,a,a-Trifluorotoluene	95538	04/14/95	50.8	50.0	102	
9504099*3							
8015M.	TXa,a,a-Trifluorotoluene	95538	04/14/95	51.5	50.0	103	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : GLEN LAB : 16:27:07 18 APR 1995 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9504085*12*R1							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	51.9	50.0	104	
9504085*12*S1							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	50.7	50.0	101	
9504085*12*S2							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	51.0	50.0	102	
9504085*12*T							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	50.0	50.0	100	
8504804*1*MB							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	51.2	50.0	102	
C5041410*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	51.4	50.0	103	
C5041410*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	50.0	50.0	100	
C5041411*1*LC							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	51.4	50.0	103	
C5041411*1*LT							
8015M.TX	a,a,a-Trifluorotoluene	95538	04/14/95	50.0	50.0	100	

CHAIN OF CUSTODY RECORD

Client: GroundWater Technology Inc.
Address: 1401 Halyard Suite 140
City, State, Zip: West Sacramento, CA
Project or PO#: 020700008.051005
Phone #: (916) 372-4700
Report attention: Brian Garber
Sampled by: Mark N Czipka

Pg 1 of 1

Analyses required: BTEX, TPH as Gas

Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	BTEX, TPH as Gas						Hazardous sample / Special handling required	Remarks
4/6/95	11:59	GW	INF	2	X					-1		Presv. w/ HCL
↓	11:57	↓	BT-1	2	X					-2		Presv. w/ HCL
↓	11:55	↓	EFF	2	X					-3		Presv. w/ HCL
												Req# 624880195
												Proj# FKEP 1015 L
												KEP
												Alameda

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	Mark N Czipka	GroundWater Technology, Inc.	4/7/95	810
Received by	J. Winter	Jan Winter	BCA	4/7/95	810
Relinquished by	J. Winter	Jan Winter	BCA	4/7/95	1600
Received by					
Relinquished by					
Received by Laboratory					

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense

Disposal arrangements

*KEY AG - Aqueous, HA - Hazardous ... GW - Groundwater, SO - Soil, FE - ...

BC ANALYTICAL
... CA 94518 (510) 825-3894
... CA 91201 (818) 247-5737

ANALYTICAL REPORT

B C Analytical

1085 Shary Circle
Concord, CA 94518
510/825-3894
Fax: 510/825-3924

LOG NO: C95-06-007

Received: 07 JUN 95

Mailed: JUN 19 1995

Mr. Brian Garber
Groundwater Technology, Inc.
1401 Halyard Drive, Suite 140
West Sacramento, California 95691

Purchase Order: 94-1446346+4370

Requisition: 624880195
Project: FKEP1015L

REPORT OF ANALYTICAL RESULTS

LOG NO	06-007-1	06-007-2	06-007-3
DATE SAMPLED	06 JUN 95	06 JUN 95	06 JUN 95
SAMPLE DESCRIPTION	Eff	Inf	Bt-2
GROUND WATER			
TPH/BTEX (8015M)			
Date Analyzed	06/13/95	06/13/95	06/13/95
Dilution Factor, Times	1	1	1
Benzene, ug/L	<0.5	<0.5	<0.5
Carbon Range, .	C6-C12	C6-C12	C6-C12
Toluene, ug/L	<0.5	<0.5	<0.5
Ethylbenzene, ug/L	<0.5	<0.5	<0.5
Total Xylene Isomers, ug/L	4.0	<0.5	<0.5
TPH (Gasoline Rang·), ug/L	<50	<50	<50

Karen Petryna
2225 Telegraph Ave., Oakland
Alameda County
The xylene isomers quantitated in the effluent
and influent samples were confirmed.
J. Winter, 6/19/95

Marina Adriance, Project Manager

BCA

: ORDER PLACED FOR CLIENT: Groundwater Technology, Inc. 9506007 :
: BC ANALYTICAL : COND LAB : 12:51:23 19 JUN 1995 - P. 1 :

SAMPLES...	SAMPLE DESCRIPTION..	DETERM.....	DATE..... ANALYZED	METHOD.....	EQUIP.	BATCH..	ID.NO
9506007*1	Eff	GAS.MTBE.TES.AQ	06.13.95	8015M	516-24	957216	8658
9506007*2	Inf	GAS.MTBE.TES.AQ	06.13.95	8015M	516-24	957216	8658
9506007*3	Bt-2	GAS.MTBE.TES.AQ	06.13.95	8015M	516-20	958133	8658

***

Notes: Equipment = BC Analytical identification number for a particular piece of analytical equipment.

ID.NO = BC Analytical employee identification number of analyst.

BC ANALYTICAL

ORDER QC REPORT FOR C9506007

DATE REPORTED : 06/20/95

LABORATORY CONTROL STANDARDS
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER	DATE ANALYZED	BATCH NUMBER	LC RESULT	LT RESULT	UNIT	PERCENT RECOVERY
1. TPH/BTEX	C506006*1					
Date Analyzed	06.13.95	957216	06/13/95	06/13/95	Date	N/A
Benzene	06.13.95	957216	20.1	20.0	ug/L	101
Toluene	06.13.95	957216	21.2	20.0	ug/L	106
Ethylbenzene	06.13.95	957216	20.4	20.0	ug/L	102
Total Xylene Isomers	06.13.95	957216	66.3	60.0	ug/L	111
TPH (Gasoline Range)	06.13.95	957216	1010	1000	ug/L	101
2. TPH/BTEX	C506009*1					
Date Analyzed	06.15.95	957216	06/15/95	06/15/95	Date	N/A
Benzene	06.15.95	957216	18.9	20.0	ug/L	95
Toluene	06.15.95	957216	20.2	20.0	ug/L	101
Ethylbenzene	06.15.95	957216	20.1	20.0	ug/L	101
Total Xylene Isomers	06.15.95	957216	65.0	60.0	ug/L	108
TPH (Gasoline Range)	06.15.95	957216	960	1000	ug/L	96
3. TPH/BTEX	C506010*1					
Date Analyzed	06.16.95	957216	06/16/95	06/16/95	Date	N/A
Benzene	06.16.95	957216	19.4	20.0	ug/L	97
Toluene	06.16.95	957216	21.1	20.0	ug/L	106
Ethylbenzene	06.16.95	957216	19.6	20.0	ug/L	98
Total Xylene Isomers	06.16.95	957216	64.7	60.0	ug/L	108
TPH (Gasoline Range)	06.16.95	957216	986	1000	ug/L	99
4. TPH/BTEX	C506007*1					
Date Analyzed	06.12.95	958133	06/12/95	06/12/95	Date	N/A
Benzene	06.12.95	958133	22.3	20.0	ug/L	112
Toluene	06.12.95	958133	20.4	20.0	ug/L	102
Ethylbenzene	06.12.95	958133	20.9	20.0	ug/L	105
Total Xylene Isomers	06.12.95	958133	63.2	60.0	ug/L	105
TPH (Gasoline Range)	06.12.95	958133	959	1000	ug/L	96
5. TPH/BTEX	C506008*1					
Date Analyzed	06.13.95	958133	06/13/95	06/13/95	Date	N/A
Benzene	06.13.95	958133	21.5	20.0	ug/L	108
Toluene	06.13.95	958133	20.3	20.0	ug/L	102
Ethylbenzene	06.13.95	958133	20.3	20.0	ug/L	102
Total Xylene Isomers	06.13.95	958133	61.9	60.0	ug/L	103
TPH (Gasoline Range)	06.13.95	958133	1070	1000	ug/L	107

BC ANALYTICAL

ORDER QC REPORT FOR C9506007

DATE REPORTED : 06/20/95

ADDITIONAL LCS PRECISION (DUPLICATES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	LC1 RESULT	LC2 RESULT	UNIT	RELATIVE % DIFF
1. TPH/BTEX							
Date Analyzed		06.13.95	957216	06/13/95	06/15/95	Date	N/A
Benzene		06.13.95	957216	20.1	18.9	ug/L	6
Toluene		06.13.95	957216	21.2	20.2	ug/L	5
Ethylbenzene		06.13.95	957216	20.4	20.1	ug/L	1
Total Xylene Isomers		06.13.95	957216	66.3	65.0	ug/L	2
TPH (Gasoline Range)		06.13.95	957216	1010	960	ug/L	5
2. TPH/BTEX							
Date Analyzed		06.12.95	958133	06/12/95	06/13/95	Date	N/A
Benzene		06.12.95	958133	22.3	21.5	ug/L	4
Toluene		06.12.95	958133	20.4	20.3	ug/L	0
Ethylbenzene		06.12.95	958133	20.9	20.3	ug/L	3
Total Xylene Isomers		06.12.95	958133	63.2	61.9	ug/L	2
TPH (Gasoline Range)		06.12.95	958133	959	1070	ug/L	11

BC ANALYTICAL

ORDER QC REPORT FOR C9506007

DATE REPORTED : 06/20/95

MATRIX QC ACCURACY (SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS %	MSD %	TRUE RESULT	UNIT
1. TPH/BTEX	9506013*1						
Benzene		06.13.95	957216	94	96	20.0	ug/L
Toluene		06.13.95	957216	102	102	20.0	ug/L
Ethylbenzene		06.13.95	957216	100	100	20.0	ug/L
Total Xylene Isomers		06.13.95	957216	110	110	60.0	ug/L
TPH (Gasoline Range)		06.13.95	957216	101	98	1000	ug/L

BC ANALYTICAL

ORDER QC REPORT FOR C9506007

DATE REPORTED : 06/20/95

MATRIX QC PRECISION (DUPLICATE SPIKES)
BATCH QC REPORT

PARAMETER	SAMPLE NUMBER	DATE ANALYZED	BATCH NUMBER	MS RESULT	MSD RESULT	UNIT	RELATIVE % DIFF
1. TPH/BTEX	9506013*1						
Date Analyzed		06.15.95	957216	06/15/95	06/15/95	Date	N/A
Benzene		06.15.95	957216	18.7	19.1	ug/L	2
Toluene		06.15.95	957216	20.4	20.3	ug/L	0
Ethylbenzene		06.15.95	957216	19.9	19.9	ug/L	0
Total Xylene Isomers		06.15.95	957216	66.1	65.9	ug/L	0
TPH (Gasoline Range)		06.15.95	957216	1010	975	ug/L	4

BC ANALYTICAL

ORDER QC REPORT FOR C9506007

DATE REPORTED : 06/20/95

METHOD BLANKS AND REPORTING DETECTION LIMIT (RDL)
FOR BATCHES WHICH INCLUDE THIS ORDER

PARAMETER		DATE ANALYZED	BATCH NUMBER	BLANK RESULT	RDL	UNIT	METHOD
1. TPH/BTEX	B506004*1						
Date Analyzed		06.13.95	957216	06/13/95	NA	Date	8015M
Benzene		06.13.95	957216	0.34	0.5	ug/L	8015M
Toluene		06.13.95	957216	0.26	0.5	ug/L	8015M
Ethylbenzene		06.13.95	957216	0	0.5	ug/L	8015M
Methyl-tert-butylether		06.13.95	957216		10	ug/L	8015M
Total Xylene Isomers		06.13.95	957216	0	0.5	ug/L	8015M
TPH (Gasoline Range)		06.13.95	957216	4.0	0.5	ug/L	8015M
2. TPH/BTEX	B506010*1						
Date Analyzed		06.15.95	957216	06/15/95	NA	Date	8015M
Benzene		06.15.95	957216	0.24	0.5	ug/L	8015M
Toluene		06.15.95	957216	0	0.5	ug/L	8015M
Ethylbenzene		06.15.95	957216	0	0.5	ug/L	8015M
Methyl-tert-butylether		06.15.95	957216		10	ug/L	8015M
Total Xylene Isomers		06.15.95	957216	0	0.5	ug/L	8015M
TPH (Gasoline Range)		06.15.95	957216	2.1	50	ug/L	8015M
3. TPH/BTEX	B506006*1						
Date Analyzed		06.12.95	958133	06/12/95	NA	Date	8015M
Benzene		06.12.95	958133	0.072	0.5	ug/L	8015M
Toluene		06.12.95	958133	0.23	0.5	ug/L	8015M
Ethylbenzene		06.12.95	958133	0	0.5	ug/L	8015M
Total Xylene Isomers		06.12.95	958133	0.079	0.5	ug/L	8015M
TPH (Gasoline Range)		06.12.95	958133	15	50	ug/L	8015M
4. TPH/BTEX	B506008*1						
Date Analyzed		06.13.95	958133	06/13/95	NA	Date	8015M
Benzene		06.13.95	958133	0.066	0.5	ug/L	8015M
Toluene		06.13.95	958133	0.30	0.5	ug/L	8015M
Ethylbenzene		06.13.95	958133	0	0.5	ug/L	8015M
Total Xylene Isomers		06.13.95	958133	0.21	0.5	ug/L	8015M
TPH (Gasoline Range)		06.13.95	958133	9.1	50	ug/L	8015M

: SURROGATE RECOVERIES :
: BC ANALYTICAL : CORD LAB : 12:47:27 19 JUN 1995 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9506007*1							
8015M	a,a,a-Trifluorotoluene	957216	06/13/95	55.8	50.0	112	
9506007*2							
8015M	a,a,a-Trifluorotoluene	957216	06/13/95	55.2	50.0	110	
9506007*3							
8015M	a,a,a-Trifluorotoluene	958133	06/13/95	47.9	50.0	96	

: SURROGATE RECOVERIES :
: BC ANALYTICAL : CORD LAB : 12:47:30 19 JUN 1995 - P. 1 :

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
9506013*1*R1							
8015M	a,a,a-Trifluorotoluene	957216	06/13/95	53.8	50.0	108	
9506013*1*S1							
8015M	a,a,a-Trifluorotoluene	957216	06/15/95	49.6	50.0	99	
9506013*1*S2							
8015M	a,a,a-Trifluorotoluene	957216	06/15/95	51.8	50.0	104	
9506013*1*T							
8015M	a,a,a-Trifluorotoluene	957216	06/15/95	50.0	50.0	100	
B506004*1*MB							
8015M	a,a,a-Trifluorotoluene	957216	06/13/95	54.9	50.0	110	
B506006*1*MB							
8015M	a,a,a-Trifluorotoluene	958133	06/12/95	45.8	50.0	92	
B506010*1*MB							
8015M	a,a,a-Trifluorotoluene	957216	06/15/95	54.3	50.0	109	
C506006*1*LC							
8015M	a,a,a-Trifluorotoluene	957216	06/13/95	54.3	50.0	109	
C506006*1*LT							
8015M	a,a,a-Trifluorotoluene	957216	06/13/95	50.0	50.0	100	
C506007*1*LC							
8015M	a,a,a-Trifluorotoluene	958133	06/12/95	45.6	50.0	91	
C506007*1*LT							
8015M	a,a,a-Trifluorotoluene	958133	06/12/95	50.0	50.0	100	
C506008*1*LC							
8015M	a,a,a-Trifluorotoluene	958133	06/13/95	46.1	50.0	92	
C506008*1*LT							
8015M	a,a,a-Trifluorotoluene	958133	06/13/95	50.0	50.0	100	
C506009*1*LC							
8015M	a,a,a-Trifluorotoluene	957216	06/15/95	53.1	50.0	106	

METHOD	ANALYTE	BATCH	ANALYZED	REPORTED	TRUE	%REC	FLAG
C506009*1*LT							
8015M	a,a,a-Trifluorotoluene	957216	06/15/95	50.0	50.0	100	
C506010*1*LC							
8015M	a,a,a-Trifluorotoluene	957216	06/16/95	52.7	50.0	105	
C506010*1*LT							
8015M	a,a,a-Trifluorotoluene	957216	06/16/95	50.0	50.0	100	

CHAIN OF CUSTODY RECORD

2225 Telegraph Ave, Oakland BCA Log Number C9506007

Project name: GROUNDWATER TECHNOLOGY	Project or PO#: TEST OAKLAND 02070000.05.1005
Address: 1401 HAYWARD STE # 140	Phone #: (916) 372-4700
City, State, Zip: WEST SACRAMENTO CA	Report attention: BRIAN GARBER

Lab sample number	Date sampled	Time sampled	Type* See key below	Sampled by / Sample description	Number of containers	BTEX/TPH-G	Hazardous sample / Special handling required	Remarks
	6-6-95	1025	AGW	EFF	2			-1
	6-6-95	1026	GW	INF	2			-2
	6-6-95	1028	GW	BT-2	2			-3
								624880195
								Alameda
								KEP
								FKEP 1015C

	Signature	Print Name	Company	Date	Time
Relinquished by		STEVEN STREM	GROUNDWATER TECHNOLOGY	6-7-95	1716
Received by	Kimberly Eng	Kimberly Eng	BCA	6/7/95	5:17
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

BC ANALYTICAL
[illegible] Concord CA 94518 (510) 825-3894

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: _____

*KEY: AG - Aqueous NA - Nonaqueous SL - Sludge GW - Groundwater SO - Soil PE - Petroleum

2225 Telegraph, Oakland BCA Log Number

CHAIN OF CUSTODY RECORD

Client name: GROUNDWATER TECHNOLOGY

Address: 4401 HALYARD STE # 140

City, State, Zip: WEST SACRAMENTO CA

Project or PO# TES/OAKLAND 020700008.051005

Phone # (916) 372-4700

Report attention: BRIAN GARBER

Sampled by:

Analyses required: BTEX/TPH-G; Hazardous sample Special handling required

Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	BTEX/TPH-G							Hazardous sample Special handling required	Remarks
6-6-95	1025	GW	EFF		2								-1
6-6-95	1026	GW	INF		2								-2
6-6-95	1028	GW	BT-2		2								-3

Remarks: 62488 0195 / Alameda / KEP / FKEP1015C

	Signature	Print Name	Company	Date	Time
Relinquished by	[signature]	STEVEN STREM	GROUNDWATER TECHNOLOGY	6-7-95	1716
Received by	Kimberly Eng	Kimberly Eng	BCA	6/7/95	5:17
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client's expense.

Disposal arrangements: ____

*KEY: AG—Aqueous NA—Nonaqueous SL—Sludge GW—Groundwater SO—Soil PE—Petroleum

B C ANALYTICAL

Oakland, CA 94518 (510) 825-3894