



ALISTO ENGINEERING GROUP

July 11, 1995

Ms. Cynthia Adkinson  
East Bay Municipal Utility District  
Source Control Division  
P.O. Box 24055  
Oakland, California 94623

10-025-07-002

Subject: Sewer Discharge Permit - Semi-Annual Report  
BP Oil Company Service Station 11133  
2220 98th Avenue  
Oakland, California  
Wastewater Discharge Permit No. 503-00381

Dear Ms. Adkinson:

On behalf of BP Oil Company, we have enclosed a summary of analytical results for the remediation system sampling events and quantity discharged for BP Oil Company Service Station No. 11133, 2220 98th Avenue, Oakland, California. The previous report covered the period from January 1 to March 31, 1995, therefore, this report covers the period from April 1 to June 30, 1995. The next report will cover the period from July 1 to December 31, 1995.

The groundwater treatment system was started in March 1995. The total volume discharged for the period is presented in Table 1. The results of influent, intermediate, and effluent sample analysis are presented in Table 2. The sampling point locations are shown in Figure 1. The laboratory reports and chain of custody records are presented in Attachment A.

"I certify under penalty of law that 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."

Ms. Cynthia Adkinson  
July 11, 1995  
Page 2

Please call if you have questions regarding this report.

Sincerely,

ALISTO ENGINEERING GROUP



Peter Beaver  
Engineering Manager

cc: Scott Hooton, BP Oil Company  
Eva Chu, Alameda County Health Care Services Agency



ALISTO ENGINEERING GROUP

ENVIRONMENTAL  
PROTECTION  
95 APR 17 PM 2:35

April 14, 1995

Ms. Eva Chu  
Department of Environmental Health  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-657780

10-025-07-002

Subject: Sewer Discharge Permit - Monthly Report  
BP Oil Company Service Station 11133  
2220 98th Avenue  
Oakland, California  
Wastewater Discharge Permit No. 503-00381

Dear Ms. Chu:

On behalf of BP Oil Company, we have enclosed a summary of analytical results for the remediation system sampling events and quantity discharged for BP Oil Company Service Station No. 11133, 2220 98th Avenue, Oakland, California. The last quarterly report covered the period from October 1 to December 31, 1994, therefore, this report covers the period from January 1 to March 31, 1995. The next report will cover the period from April 1 to September 30, 1995.

The groundwater ~~treatment system~~ was started in March 1995. Results of sample analysis indicate that petroleum hydrocarbon constituents were not present above the reported detection limits in the effluent samples. The total volume discharged for the period is presented in Table 1. The results of influent, intermediate, and effluent sample analysis are presented in Table 2. The sampling point locations are shown in Figure 1. The laboratory report and chain of custody record are presented in Attachment A.

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Ms. Eva Chu  
April 14, 1995  
Page 2

Please call if you have questions regarding this report.

Sincerely,

ALISTO ENGINEERING GROUP

A handwritten signature in cursive script, appearing to read 'Peter Beaver', written in dark ink.

Peter Beaver  
Engineering Manager

cc: Scott Hooton, BP Oil Company  
Cynthia Adkinson, East Bay Municipal Utility District



**ALISTO ENGINEERING GROUP**

April 14, 1995

Ms. Cynthia Adkinson  
Source Control Division  
East Bay Municipal Utility District  
P.O. Box 24055  
Oakland, California 94623

10-025-07-002

Subject: Sewer Discharge Permit - Semi-Annual Monthly Report  
BP Oil Company Service Station 11133  
2220 98th Avenue  
Oakland, California  
Wastewater Discharge Permit No. 503-00381

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Ms. Cynthia Adkinson  
April 14, 1995  
Page 2

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Sincerely,

ALISTO ENGINEERING GROUP

A handwritten signature in black ink, appearing to read 'Peter Beaver', with a long horizontal flourish extending to the right.

Peter Beaver  
Engineering Manager

cc: Scott Hooton, BP Oil Company  
Eva Chu, Alameda County Health Care Services Agency

ENVIRONMENTAL  
PROTECTION  
95 APR 17 11 25 AM '95

TABLE 1. FLOW DATA FOR GROUNDWATER TREATMENT SYSTEM  
BP OIL COMPANY SERVICE STATION NO. 11133  
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

DATE	FLOW METER READING (Gallons)	EFFLUENT DISCHARGED (Gallons)	AVERAGE FLOW RATE (GPD)	AVERAGE FLOW RATE (GPM)
03/21/95	0	0	0	0.00
03/27/95	3069	3069	512	0.36

ABBREVIATIONS:

GPD Gallons per day  
GPM Gallons per minute  
--- Not available/applicable

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER  
TREATMENT SYSTEM OPERATION  
BP OIL COMPANY SERVICE STATION NO. 11133  
2220 98TH AVENUE, OAKLAND, CALIFORNIA

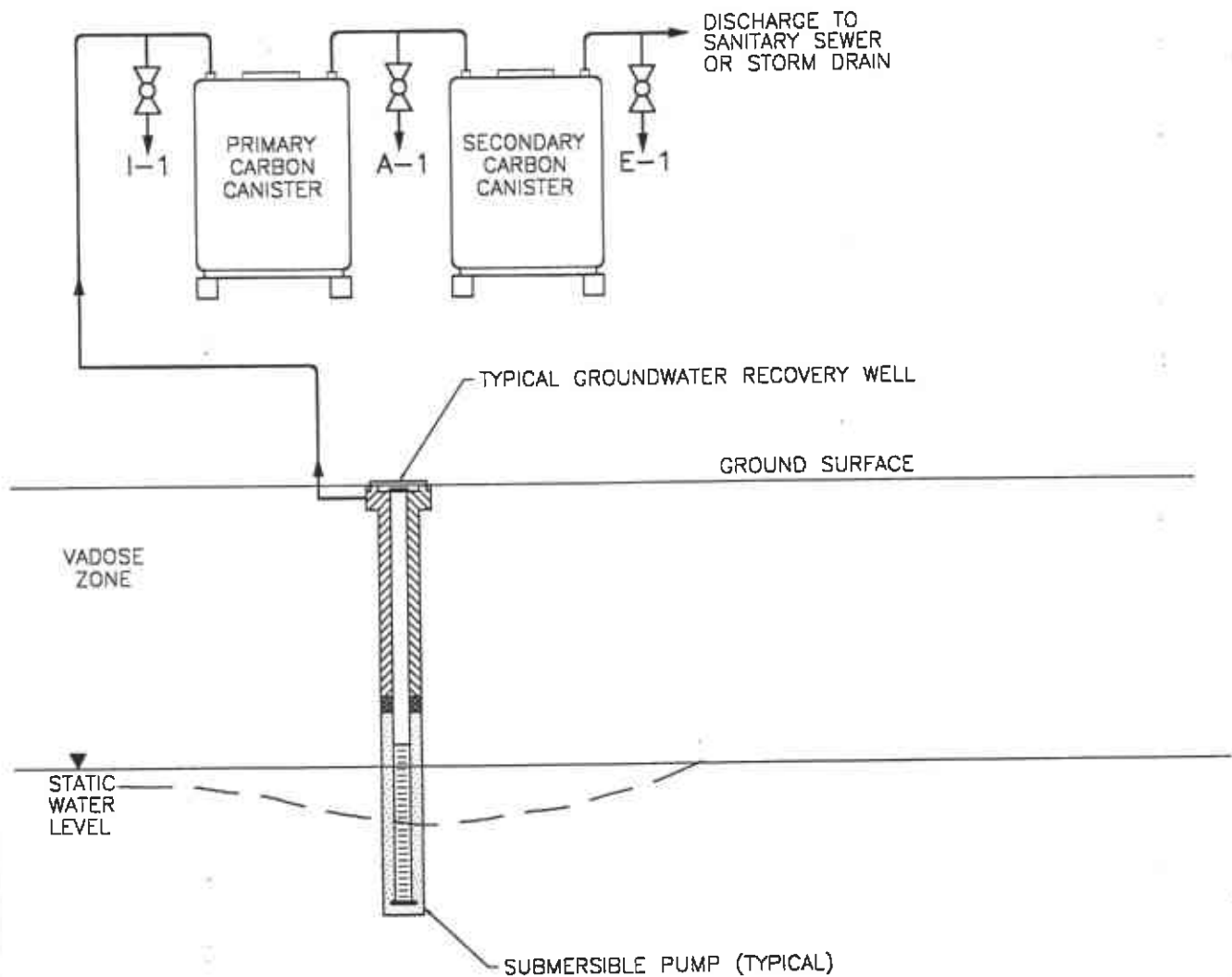
ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	Lead (ppm)	LAB
F-1	03/21/95	180000	32000	55000	5100	27000	—	ATI
PS-1	03/21/95	47000	900	4200	1400	8400	—	ATI
A-1	03/21/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	—	ATI
B-1	03/21/95	88	ND<0.50	2	ND<0.50	2	—	ATI
E-1	03/21/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.002	ATI


ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
	Parts per billion
	Intermediate sampling port
PS-1	Intermediate sampling port
A-1	Intermediate sampling port
B-1	Intermediate sampling port
E-1	Effluent sampling port
ND	Not detected above reported detection limit
—	Not analyzed
ATI	Analytical Technologies, Inc.





**LEGEND**

- I = INFLUENT
- A = INTERMEDIATE
- E = EFFLUENT
-  SAMPLE PORT

**FIGURE 1**

**ACTIVATED CARBON TREATMENT SYSTEM SAMPLING LOCATIONS**

BP OIL SERVICE STATION NO. 11138  
 2220 98TH AVENUE  
 OAKLAND, CALIFORNIA

PROJECT NO. 10-025



**ALISTO ENGINEERING GROUP**  
 WALNUT CREEK, CALIFORNIA

**ATTACHMENT A**

**LABORATORY REPORT AND CHAIN OF CUSTODY RECORD**



ATI I.D.: 503289

March 28, 1995

ALISTO ENGINEERING  
1777 OAKLAND BOULEVARD, SUITE 200  
WALNUT CREEK, CA 94596

Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA  
Project # : G418846/10-025-07-001


Attention: PETE BEAVER

Analytical Technologies, Inc. has received the following sample(s):

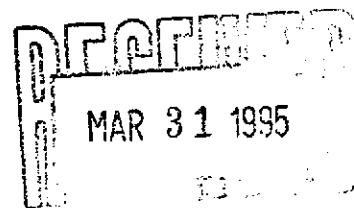
<u>Date Received</u>	<u>Quantity</u>	<u>Matrix</u>
March 23, 1995	5	WATER

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. If any flags appear next to the analytical data in this report, please see the attached list of flag definitions.

The results of these analyses and the quality control data are enclosed. Please note that the Sample Condition Upon Receipt Checklist is included at the end of this report.

  
CHRISTOPHER MYERS  
PROJECT MANAGER

  
FOR ALAN J. KLEINSCHMIDT  
LABORATORY MANAGER





## SAMPLE CROSS REFERENCE

Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

Report Date: March 28, 1995  
ATI I.D. : 503289

ATI #	Client Description	Matrix	Date Collected
1	STA#11133-INF	WATER	21-MAR-95
2	STA#11133-PS	WATER	21-MAR-95
3	STA#11133-A	WATER	21-MAR-95
4	STA#11133-B	WATER	21-MAR-95
5	STA#11133-EFF	WATER	21-MAR-95

## ---TOTALS---

<u>Matrix</u>	<u># Samples</u>
WATER	5

ATI STANDARD DISPOSAL PRACTICE

The sample(s) from this project will be disposed of in twenty-one (21) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.



ANALYTICAL SCHEDULE

Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D.: 503289

Analysis	Technique/Description
EPA 7421 (LEAD)	ATOMIC ABSORPTION/GRAPHITE FURNACE
MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTEX)	GC/FLAME ION./PHOTO IONIZATION DETECTOR



METALS RESULTS

Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D.: 503289

Sample #	Client ID	Matrix	Date Sampled	Date Received
5	STA#11133-EFF	WATER	21-MAR-95	23-MAR-95

Parameter	Units	5
LEAD	MG/L	<0.002



METALS - QUALITY CONTROL

DUP/MS

Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D. : 503289

Parameters	REF I.D.	Units	Sample Result	Dup Result	RPD	Spiked Sample	Spike Conc	% Rec
LEAD	503282-02	MG/L	0.085	0.090	6	1.83	2.00	87

% Recovery = (Spike Sample Result - Sample Result)\*100/Spike Concentration  
RPD (Relative % Difference) = (Sample Result - Duplicate Result)\*100/Average Result



METALS - QUALITY CONTROL

BLANK SPIKE

Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D. : 503289

Parameters	Blank Spike ID#	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
LEAD	55392	MG/L	<0.002	1.94	2.00	97

% Recovery = (Spike Sample Result - Sample Result)\*100/Spike Concentration  
RPD (Relative % Difference) = (Sample Result - Duplicate Result)\*100/Average Result





Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)  
 Client : ALISTO ENGINEERING  
 Project # : G418846/10-025-07-001  
 Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D. : 503289

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133-INF	WATER	21-MAR-95	N/A	27-MAR-95	1000.00
2	STA#11133-PS	WATER	21-MAR-95	N/A	27-MAR-95	100.00
3	STA#11133-A	WATER	21-MAR-95	N/A	27-MAR-95	1.00

Parameter	Units	1	2	3		
BENZENE	UG/L	32000	690	<0.50		
TOLUENE	UG/L	55000	4200	<0.50		
ETHYLBENZENE	UG/L	5100	1400	<0.50		
XYLENES (TOTAL)	UG/L	27000	8400	<1.0		
FUEL HYDROCARBONS	UG/L	180000	47000	<50		
HYDROCARBON RANGE		C6-C12	C6-C12	C6-C12		
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE	GASOLINE		
<u>SURROGATES</u>						
TRIFLUOROTOLUENE	%	93	102	97		



GAS CHROMATOGRAPHY RESULTS

Test : MOD EPA 8015-CDOHS/8020 (HYDROCARBONS C6-C12/BTXE)  
 Client : ALISTO ENGINEERING ATI I.D. : 503289  
 Project # : G418846/10-025-07-001  
 Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
4	STA#11133-B	WATER	21-MAR-95	N/A	27-MAR-95	1.00
5	STA#11133-EFF	WATER	21-MAR-95	N/A	27-MAR-95	1.00

Parameter	Units	4	5			
BENZENE	UG/L	<0.50	<0.50			
TOLUENE	UG/L	1.7	<0.50			
ETHYLBENZENE	UG/L	<0.50	<0.50			
XYLENES (TOTAL)	UG/L	2.1	<1.0			
FUEL HYDROCARBONS	UG/L	88	<50			
HYDROCARBON RANGE		C6-C12	C6-C12			
HYDROCARBONS QUANTITATED USING		GASOLINE	GASOLINE			
<b>SURROGATES</b>						
TRIFLUOROTOLUENE	%	97	97			



GAS CHROMATOGRAPHY - QUALITY CONTROL

REAGENT BLANK

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTXE)  
Blank I.D. : 34811  
Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name: BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D. : 503289  
Date Extracted: N/A  
Date Analyzed : 27-MAR-95  
Dil. Factor : 1.00

Parameters	Units	Results
BENZENE	UG/L	<0.50
TOLUENE	UG/L	<0.50
ETHYLBENZENE	UG/L	<0.50
XYLENES (TOTAL)	UG/L	<1.0
FUEL HYDROCARBONS	UG/L	<50
HYDROCARBON RANGE		C6-C12
HYDROCARBONS QUANTITATED USING		GASOLINE
<u>SURROGATES</u>		
TRIFLUOROTOLUENE	%	89

**GAS CHROMATOGRAPHY - QUALITY CONTROL**
**MSMSD**

**Test** : MOD EPA 8015-CDOHS (FUEL-HYDROCARBONS/BTXE)  
**MSMSD #** : 74272  
**Client** : ALISTO ENGINEERING

**ATI I.D.** : 503289  
**Date Extracted:** N/A  
**Date Analyzed** : 27-MAR-95  
**Sample Matrix** : WATER  
**REF I.D.** : 503276-02

**Project #** : G418846/10-025-07-001  
**Project Name:** BP SITE #11133/2220 98TH AVE, OAKLAND, CA

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
BENZENE	UG/L	<0.50	5.0	4.7	94	4.6	92	2
TOLUENE	UG/L	<0.50	5.0	4.9	98	4.7	94	4

$\% \text{ Recovery} = (\text{Spike Sample Result} - \text{Sample Result}) * 100 / \text{Spike Concentration}$

$\text{RPD (Relative \% Difference)} = (\text{Spiked Sample Result} - \text{Duplicate Spike Result}) * 100 / \text{Average Result}$



GAS CHROMATOGRAPHY - QUALITY CONTROL

BLANK SPIKE

Test : MOD EPA 8015-CDOHS (FUEL HYDROCARBONS/BTEX)  
Blank Spike #: 55375  
Client : ALISTO ENGINEERING  
Project # : G418846/10-025-07-001  
Project Name : BP SITE #11133/2220 98TH AVE, OAKLAND, CA

ATI I.D. : 503289  
Date Extracted: N/A  
Date Analyzed : 27-MAR-95  
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
BENZENE	UG/L	<0.50	4.8	5.0	96
TOLUENE	UG/L	<0.50	5.0	5.0	100

% Recovery = (Spike Sample Result - Sample Result)\*100/Spike Concentration  
RPD (Relative % Difference) = (Spiked Sample - Blank Result)\*100/Average Result



# CHAIN OF CUSTODY

No 051247

Page 1 of 1

CONSULTANT'S NAME <b>Alisto Engineering Group</b>		ADDRESS <b>1777 OAKLAND BLVD # 200 W.C.</b>		CITY <b>CA</b>	STATE <b>CA</b>	ZIP CODE <b>94596</b>
BP SITE NUMBER <b>11133</b>	BP CORNER ADDRESS/CITY <b>2220 98th AVE OAKLAND CA</b>				CONSULTANT PROJECT NUMBER <b>10-025-07-001</b>	
CONSULTANT PROJECT MANAGER <b>PETE BEAVER</b>		PHONE NUMBER <b>(510) 295-1650</b>	FAX NUMBER <b>(510) 295-1823</b>		CONSULTANT CONTRACT NUMBER <b>6418846</b>	
BP CONTACT <b>Scott Hooper</b>	BP ADDRESS <b>Penion WA</b>		PHONE NUMBER <b>(206) 251-0667</b>		FAX NO.	
LAB CONTACT	LABORATORY ADDRESS <b>5550 MINEHOUSE DR</b>		PHONE NUMBER <b>419-4583-9141</b>		FAX NO.	
SAMPLED BY (Please Print Name) <b>SCOTT POLSTON</b>		SAMPLED BY (Signature) <i>[Signature]</i>		SHIPMENT DATE		SHIPMENT METHOD

TAT:  24 Hours  48 Hours  1 Week  Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE 3/21/95 COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS		PRESERVATIVE LAB SAMPLE #	HCl	HCl	HNO3								COMMENTS	
			NO.	TYPE (VOL.)		TOH GAS	BTEX	Pb									
Sta # 11133 - INF	1205	GW	3	VOA	01	X	X										
Sta # 11133 - PS	1209	↓	↓	↓	02	X	X										
Sta # 11133 - A	1214	↓	↓	↓	03	X	X										
Sta # 11133 - B	1216	↓	↓	↓	04	X	X										
Sta # 11133 - Eff	1220	↓	4	↓	05	X	X	X									

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	ADDITIONAL COMMENTS
<i>[Signature]</i>	3/22/95		<i>[Signature]</i>	3/23/95	9:15	503289 60°C