ALISTO ENGINEERING GROUP

October 14, 1996

Mr. Raymond Maxwell
East Bay Municipal Utility District
Source Control Division
Post Office Box 24055
Oakland, California 94623-1055

10-025-10-002

Subject: Groundwater Remediation System Semi-Annual Report - October 1996
BP Oil Company Service Station 11133
2220 98th Avenue
Oakland, California
Wastewater Discharge Permit No. 503-00381

Dear Mr. Maxwell:

On behalf of BP Oil Company, we have enclosed a summary of analytical results for the groundwater remediation system sampling events and quantity discharged for BP Oil Company Service Station No. 11133, 2220 98th Avenue, Oakland, California. This report covers April 1, 1996 through September 30, 1996.

The results of sample analysis indicate that petroleum constituents were not detected above the reported detection limits in the effluent samples during this reporting period. 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 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."

Please call if you have questions regarding this report.

Sincerely,

ALISTO ENGINEERING GROUP

Peter Beaver
Engineering Manager

Enclosures

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

TABLE 1 - FLOW DATA FOR GROUNDWATER REMEDIATION 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)	Total Effluent Discharged (gallons)	Average Flow Rate (gpd)	Average Flow Rate (gpm)	Influent TPH-G Concentration (ug/l)	Period Hydrocarbon Removed (lb)	Cumulative Hydrocarbon Removed (lb)
03/21/95		0	0	0	---	---	180,000	NC	NC
03/27/95		3,069	3,069	3,069	512	0.71	210,000	5.4	5.4
05/02/95		4,280	1,211	4,280	34	0.05	160,000	1.6	7.0
06/01/95		5,390	1,110	5,390	37	0.05	330,000	3.1	10.1
06/28/95		7,634	2,244	7,634	83	0.12	200,000	3.7	13.8
07/31/95		9,480	1,846	9,480	56	0.08	200,000	3.1	16.9
08/30/95		11,869	2,389	11,869	80	0.11	160,000	3.2	20.1
09/28/95		19,572	7,703	19,572	266	0.37	230,000	14.8	34.9
10/18/95		21,266	1,694	21,266	85	0.12	280,000	4.0	38.8
11/14/95		28,880	7,614	28,880	282	0.39	150,000	9.5	48.3
12/27/95		39,395	10,515	39,395	245	0.34	99,000	8.7	57.0
01/22/96		42,994	3,599	42,994	138	0.19	150,000	4.5	61.5
02/27/96		53,058	10,064	53,058	280	0.39	230,000	19.3	80.8
03/01/96		55,609	2,551	55,609	850	1.18	230,000	4.9	85.7
03/25/96		59,409	3,800	59,409	158	0.22	180,000	5.7	91.4
04/30/96		65,132	5,723	65,132	159	0.22	95,000	4.5	96.0
05/30/96		82,551	17,419	82,551	581	0.81	170,000	24.7	120.7
07/01/96	(a)	83,210	659	83,210	21	0.03	96,000	0.5	121.2
07/31/96	(b)	84,444	1,234	84,444	41	0.06	96,000	1.0	122.2
08/27/96		98,824	14,380	98,824	533	0.74	75,000	9.0	131.2
09/30/96		107,482	8,658	107,482	255	0.35	210,000	15.2	146.4

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline	ug/l	Micrograms per liter
gpd	Gallons per day	lb	Pounds
gpm	Gallons per minute	NC	Not calculated

NOTES:

* Hydrocarbon removal is calculated by: Effluent discharged (gal) x TPH-G concentration (ug/liter) x 3.785(liter/gal) x 1 (lb) / 453.6E6 (ug).

(a) System shut down due to equipment failure.

(b) Operation of system resumed.

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

ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DCA (ug/l)	Lead (mg/l)	Lab
I-1	03/21/95	180,000	32,000	55,000	5,100	27,000	---	---	---	ATI
I-1	04/03/95	210,000	31,000	68,000	6,600	35,000	---	---	---	ATI
I-1	05/23/95	160,000	17,000	38,000	4,400	26,000	---	---	0.006	ATI
I-1	06/20/95	330,000	27,000	55,000	7,600	41,000	---	---	---	ATI
QC-1	06/20/95	200,000	21,000	45,000	5,300	30,000	---	---	---	ATI
I-1	08/29/95	160,000	34,000	54,000	4,700	24,000	7,600	ND<500	---	ATI
I-1	09/19/95	230,000	28,000	40,000	3,800	21,000	---	440	---	ATI
I-1	10/18/95	280,000	38,000	51,000	4,200	23,000	3,000	580	---	ATI
I-1	11/14/95	150,000	32,000	33,000	4,100	19,000	---	560	---	ATI
I-1	12/11/95	99,000	24,000	26,000	2,100	14,000	1,000	420	---	ATI
I-1	01/09/96	150,000	28,000	37,000	3,400	18,000	2,000	720	---	ATI
I-1	02/21/96	230,000	22,000	57,000	10,000	61,000	---	ND<5	---	SPL
I-1	03/13/96	180,000	29,000	35,000	3,300	19,000	---	ND<5	---	SPL
I-1	04/18/96	95,000	37,000	34,000	4,000	19,000	---	ND<5	---	SPL
I-1	05/14/96	170,000	28,000	43,000	5,200	30,000	---	ND<5	---	SPL
I-1	06/13/96	96,000	16,000	23,000	2,200	13,800	ND<10,000	---	---	SPL
I-1	08/08/96	75,000	23,000	13,000	2,500	11,000	2,300	---	---	SPL
I-1	09/17/96	210,000	23,000	33,000	5,100	35,000	ND<10,000	---	---	SPL
PS-1	03/21/95	47,000	690	4,200	1,400	8,400	---	---	---	ATI
PS-1	04/03/95	150,000	26,000	42,000	3,500	18,000	---	---	---	ATI
PS-1	05/23/95	35,000	1,400	4,900	1,100	6,800	---	---	---	ATI
PS-1	06/20/95	60,000	5,200	11,000	1,400	9,000	---	---	---	ATI
PS-1	08/29/95	25,000	150	1,000	500	3,300	ND<250	---	---	ATI
PS-1	09/19/95	55,000	---	---	---	---	---	---	---	ATI
PS-1	10/18/95	12,000	86	660	190	1,400	---	ND<10		ATI
PS-1	11/14/95	630	9	11	3	20	---	ND<1	---	ATI
PS-1	12/11/95	470	34	52	8	81	---	ND<1	---	ATI
PS-1	01/09/96	110	ND<1	ND<2	ND<1	1	---	ND<1	---	ATI
PS-1	02/21/96	75,000	4,100	12,000	3,000	20,000	---	ND<5	---	SPL
PS-1	03/13/96	71,000	1,200	5,700	2,300	14,000	---	ND<5	---	SPL
PS-1	04/18/96	190	ND<5	ND<5	ND<5	5	---	ND<5	---	SPL
PS-1	05/14/96	15,000	11	360	600	3,700	---	ND<5	---	SPL
PS-1	06/13/96	18,000	2,000	3,300	460	3,060	ND<1,000	---	---	SPL
PS-1	08/08/96	180	3.2	6.8	1.6	21.2	37	---	---	SPL
PS-1	09/17/96	600	5.8	7.7	1.9	18.7	39	---	---	SPL

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

ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DCA (ug/l)	Lead (mg/l)	Lab
A-1	03/21/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
A-1	04/03/95	ND<50	ND<0.50	0.50	ND<0.50	ND<1.0	---	---	---	ATI
A-1	05/23/95	1,200	ND<1.0	2.2	3.4	22	---	---	---	ATI
A-1	06/20/95	88	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
A-1	08/29/95	340	7.1	68	5.3	92	5.2	---	---	ATI
A-1	09/19/95	ND<500	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	10/18/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	12/11/95	1,200	4	5	3	82	---	ND<1	---	ATI
A-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
A-1	02/21/96	4,100	20	90	87	580	---	ND<5	---	SPL
A-1	03/13/96	11,000	50	860	650	4,100	---	ND<5	---	SPL
A-1	04/18/96	60	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
A-1	05/14/96	60	ND<5	ND<5	ND<5	10	---	ND<5	---	SPL
A-1	06/13/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	---	SPL
A-1	08/08/96	60	16	12	1.8	10.9	51	---	---	SPL
A-1	09/17/96	140	1.4	1.6	ND<1.0	7.5	ND<10	---	---	SPL
B-1	03/21/95	88	ND<0.50	2	ND<0.50	2	---	---	---	ATI
B-1	04/03/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
B-1	05/23/95	240	ND<0.50	0.68	0.93	7.2	---	---	---	ATI
B-1	06/20/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
B-1	08/29/95	37,000	54	420	600	3500	260	---	---	ATI
B-1	09/19/95	550	ND<1	ND<2	ND<1	9	---	ND<1	---	ATI
B-1	10/18/95	---	---	---	---	---	---	---	---	ATI
B-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
B-1	12/11/95	270	ND<1	ND<2	ND<1	1	---	ND<1	---	ATI
B-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
B-1	02/21/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
B-1	03/13/96	ND<50	ND<5	ND<5	ND<5	14	---	ND<5	---	SPL
B-1	04/18/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
B-1	05/14/96	ND<50	ND<5	8	ND<5	11	---	ND<5	---	SPL
B-1	06/13/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	---	SPL
B-1	08/08/96	ND<50	2.3	1.2	ND<1.0	1.3	48	---	---	SPL
B-1	09/17/96	52	0.78	1.6	ND<1.0	ND<1.0	14	---	---	SPL

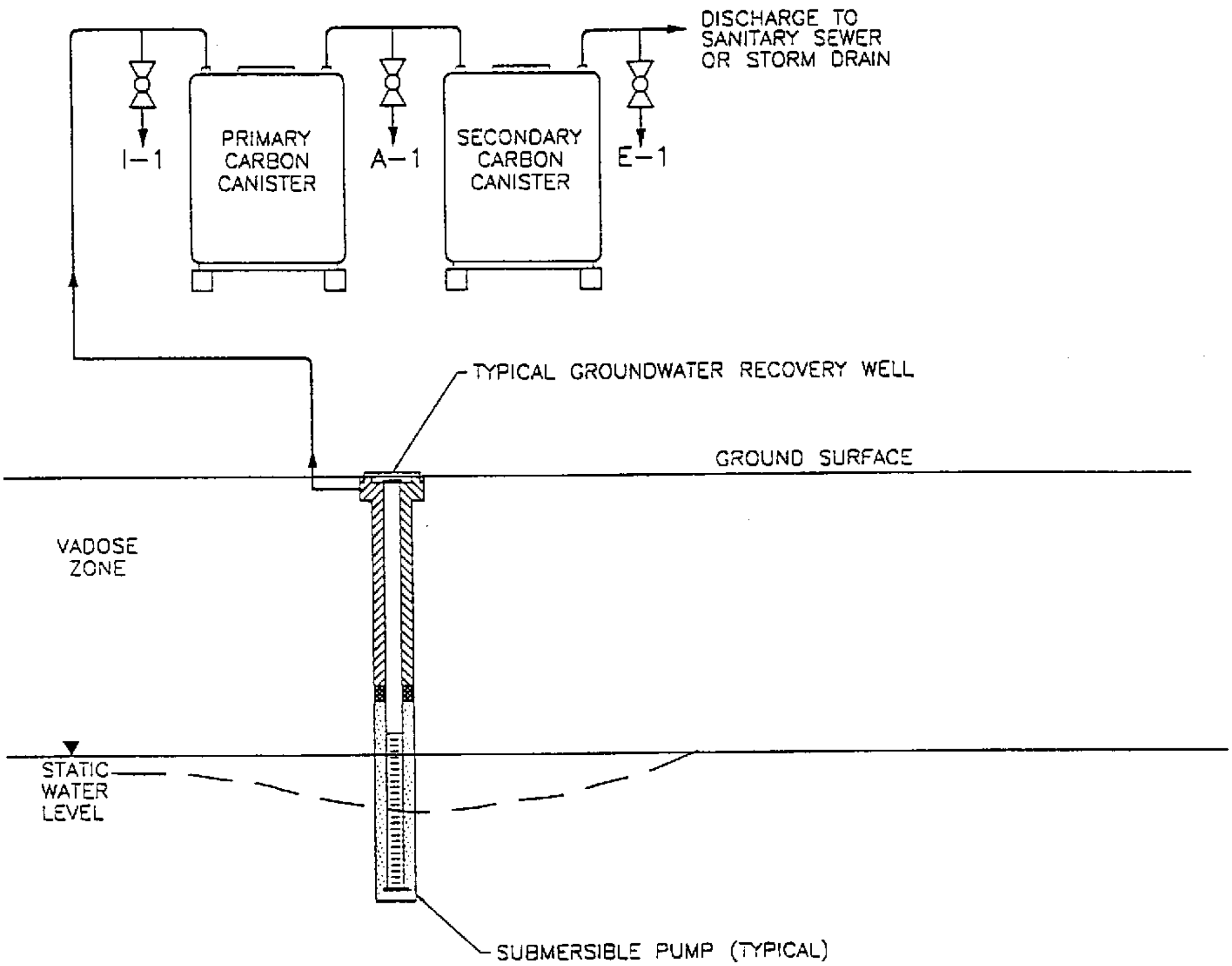
TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER REMEDIATION SYSTEM SAMPLE ANALYSIS
BP OIL COMPANY SERVICE STATION NO. 11133
2220 98TH AVENUE, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-025

Sample ID	Date	TPH-G (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	DCA (ug/l)	Lead (mg/l)	Lab
E-1	03/21/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	ND<0.002	ATI
E-1	04/03/95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	0.007	ATI
E-1	05/23/95	140	ND<0.50	ND<0.50	ND<0.50	2.3	---	---	---	ATI
QC-1	05/23/95	250	ND<0.50	ND<0.50	1.0	7.5	---	---	---	ATI
E-1	06/20/95	ND<50	ND<0.50	ND<0.50	ND<0.50	1.1	---	---	---	ATI
E-1	08/29/95	200	ND<1	ND<2	ND<1	ND<1	ND<5	---	---	ATI
E-1	09/19/95	ND<500	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	09/19/95	ND<500	---	---	---	---	---	---	---	ATI
E-1	10/18/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	10/18/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	11/14/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	12/11/95	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
QC-1	01/09/96	ND<50	ND<1	ND<2	ND<1	ND<1	---	ND<1	---	ATI
E-1	02/21/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
E-1	03/13/96	2,600	ND<5	19	49	320	---	ND<5	---	SPL
E-1	04/18/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
E-1	05/14/96	ND<50	ND<5	ND<5	ND<5	ND<5	---	ND<5	---	SPL
E-1	06/13/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<10	---	---	SPL
E-1	08/08/96	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	55	---	---	SPL
E-1	09/17/96	ND<50	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	---	SPL

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
DCA	1,2-Dichloroethane
ug/l	Micrograms per liter
mg/l	Milligrams per liter
I-1	Sample collected from influent sampling port
PS-1	Sample collected from post air stripper sampling port
A-1	Sample collected from intermediate sampling port
B-1	Sample collected from intermediate sampling port
E-1	Sample collected from effluent sampling port
QC-1	Blind duplicate sample
ND	Not detected above reported detection limit
---	Not analyzed
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories



LEGEND

I = INFLUENT
A = INTERMEDIATE
E = EFFLUENT
SAMPLE PORT

FIGURE 1

ACTIVATED CARBON TREATMENT SYSTEM SAMPLING LOCATIONS

BP OIL SERVICE STATION NO. 11133
2220 98TH AVENUE
OAKLAND, CALIFORNIA

PROJECT NO. 10-025

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

ATTACHMENT A

LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 04 - A64

Approved for release by:

Brent Barron, Client Services Supervisor Date: 5/8/96

Ed Fry, Project Manager Date: 5/8/96

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-01

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
DATE: 05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 Inf

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:00:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	95	25 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	103
4-Bromofluorobenzene	166 «

CA LUFT - Gasoline
Analyzed by: LJ
Date: 05/02/96 02:24:00

(P) - Practical Quantitation Limit « - Recovery beyond control limits.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-01

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 Inf

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:00:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	37000	1000	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	4000	1000	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	34000	1000	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	19000	1000	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-01

Alisto Engineering **SAMPLE ID:** 11133 Inf

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	104	86	115
1,2-Dichloroethane-d4	50 ug/L	108	76	114
Toluene-d8	50 ug/L	98	88	110

ANALYZED BY: JC DATE/TIME: 04/24/96 05:52:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
DATE: 05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 Ps

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:10:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	0.19	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	103
4-Bromofluorobenzene	130

CA LUFT - Gasoline
Analyzed by: LJ
Date: 05/02/96 02:50:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 Ps

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:10:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	5	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-02

Alisto Engineering

SAMPLE ID: 11133 Ps

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	108	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 04/24/96 03:42:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-03

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
DATE: 05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:20:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	0.06	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	95
4-Bromofluorobenzene	146

CA LUFT - Gasoline
Analyzed by: LJ
Date: 05/02/96 06:21:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-03

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:20:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-03

Alisto Engineering **SAMPLE ID:** 11133 A

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	104	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 04/24/96 04:08:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
DATE: 05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:30:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	94
4-Bromofluorobenzene	89

CA LUFT - Gasoline
Analyzed by: LJ
Date: 05/02/96 03:17:00

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:30:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-04

Alisto Engineering **SAMPLE ID:** 11133 B

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	98	86	115
1,2-Dichloroethane-d4	50 ug/L	106	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 04/24/96 04:34:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-05

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
DATE: 05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 Eff

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:40:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	92
4-Bromofluorobenzene	78

CA LUFT - Gasoline
Analyzed by: AA
Date: 04/28/96 11:33:00

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-05

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: 11133 Eff

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96 16:40:00
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-05

Alisto Engineering **SAMPLE ID:** 11133 Eff

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	98	86	115
1,2-Dichloroethane-d4	50 ug/L	108	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 04/24/96 05:01:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9604A64-06

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
, COC# 055892
DATE: 05/07/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: LPS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 04/18/96
DATE RECEIVED: 04/20/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	190	5 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	111
4-Bromofluorobenzene	90

CA LUFT - Gasoline
Analyzed by: VHZ
Date: 05/03/96 03:15:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No.: 9604A80 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: MW-12

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	500	0	490	98	61-145
Trichloroethene	500	0	490	98	71-120
Benzene	500	0	530	106	76-127
Toluene	500	180	680	100	76-125
Chlorobenzene	500	0	490	98	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	500	490	98	0	14	61-145
Trichloroethene	500	500	100	2	14	71-120
Benzene	500	530	106	0	11	76-127
Toluene	500	680	100	0	13	76-125
Chlorobenzene	500	500	100	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

QC/QA Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960423104642

Reported on: 04/25/96 18:16
Analyzed on: 04/23/96 21:35
Analyst: JC

METHOD 624 L114B02

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Notes
ND - Not detected.

QC officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960423104642

Reported on: 04/25/96 18:16
Analyzed on: 04/23/96 21:35
Analyst: JC

METHOD 624 L114B02

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	102	76-114	% Recovery
Toluene-d8	98	88-110	% Recovery
Bromofluorobenzene	98	86-115	% Recovery

Samples in Batch 9604A64-01 9604A64-02 9604A64-03 9604A64-04 9604A64-05

Notes
ND - Not detected.

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960424104642

Reported on: 04/25/96 18:16
Analyzed on: 04/24/96 10:29
Analyst: JC

METHOD 8240/624 L115B01

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
m,p-Xylene(s)	ND	5	ug/L
Bromoform	ND	5	ug/L
o-Xylene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Notes
ND - Not detected.

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960424104642

Reported on: 04/25/96 18:16
Analyzed on: 04/24/96 10:29
Analyst: JC

METHOD 8240/624 L115B01

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	102	76-114	% Recovery
Toluene-d8	100	88-110	% Recovery
Bromofluorobenzene	100	86-115	% Recovery

Samples in Batch 9604A64-01

Notes

ND - Not detected.

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

Matrix: Aqueous
Units: mg/L

Batch Id: HP_J960501010200

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons-Gas	ND	1.0	0.75	75.0	50 - 150

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
PETROLEUM HYDROCARBONS-GAS	ND	0.9	0.85	94.4	0.85	94.4	0	50	50 - 150

Analyst: LJ
Sequence Date: 05/01/96
SPL ID of sample spiked: 9604D46-14A
Sample File ID: JJ__465.TX0
Method Blank File ID:
Blank Spike File ID: JJ__449.TX0
Matrix Spike File ID: JJ__471.TX0
Matrix Spike Duplicate File ID: JJ__472.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: Temporary Limits
(***) = Source: Temporary Limits

SAMPLES IN BATCH(SPL ID):

9604A44-03A 9604A44-05A 9604A44-06A 9604A44-07A
9604D46-14A 9604A44-04A 9604A64-01A 9604A64-02A
9604A64-04A 9604A84-02A 9604A96-04A 9604A96-05A
9604A96-06A 9604A96-07A 9604A96-08A 9604A64-03A

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **

CA LUFT

Matrix: Aqueous

Batch Id: HP_J960428085500

Units: mg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons-Gas	ND	0.9	0.72	80.0	50 - 150

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
PETROLEUM HYDROCARBONS-GAS	ND	0.9	0.76	84.4	0.74	82.2	2.64	50	50 - 150

Analyst: AA

Sequence Date: 04/28/96

SPL ID of sample spiked: 9604A96-13A

Sample File ID: JJ__419.TX0

Method Blank File ID:

Blank Spike File ID: JJ__415.TX0

Matrix Spike File ID: JJ__416.TX0

Matrix Spike Duplicate File ID: JJ__417.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: Temporary Limits

(***) = Source: Temporary Limits

SAMPLES IN BATCH(SPL ID): 9604A30-08A 9604834-18A 9604A84-01A 9604841-19A 9604A96-13A 9604A64-05A 9604A43-07A 9604A43-08A 9604A43-09A 9604A43-10A 9604A43-11A 9604A43-12A 9604A04-04A

QC Officer

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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **

Modified 8015 - Gasoline

PAGE

Matrix: Aqueous

Units: mg/L

Batch Id: HP_J960503011000

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Petr. Hydrocarbon	ND	1.0	0.95	95.0	56 - 130

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE PETR. HYDROCARBON	ND	0.9	1.06	118	0.99	110	7.02	22	37 - 169

Analyst: LJ

Sequence Date: 05/03/96

SPL ID of sample spiked: 9604B67-05A

Sample File ID: JJ__567.TX0

Method Blank File ID:

Blank Spike File ID: JJ__539.TX0

Matrix Spike File ID: JJ__556.TX0

Matrix Spike Duplicate File ID: JJ__557.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5>) / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID): 9604B67-01A 9604B67-02A 9604B67-03A 9604B67-04A 9604B67-05A 9604C02-01A 9604A64-06A 9604A96-09A 9604A96-10A

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020/602

Matrix: Aqueous
Units: µg/L

Batch Id: HP_J960501022100

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	43	86.0	20 - 110
Benzene	ND	50	48	96.0	62 - 121
Toluene	ND	50	47	94.0	66 - 136
EthylBenzene	ND	50	48	96.0	70 - 136
O Xylene	ND	50	49	98.0	74 - 134
M & P Xylene	ND	100	100	100	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	63	20	79	80.0	79	80.0	0	20	39 - 150
BENZENE	1	20	25	120	24	115	4.26	25	39 - 150
TOLUENE	ND	20	24	120	23	115	4.26	26	56 - 134
ETHYLBENZENE	ND	20	23	115	22	110	4.44	38	61 - 128
O XYLENE	ND	20	24	120	24	120	0	29	40 - 130
M & P XYLENE	ND	40	48	120	47	118	1.68	20	43 - 152

Analyst: LJ
Sequence Date: 05/01/96
SPL ID of sample spiked: 9604A64-03A
Sample File ID: J___485.TX0
Method Blank File ID:
Blank Spike File ID: J___452.TX0
Matrix Spike File ID: J___473.TX0
Matrix Spike Duplicate File ID: J___474.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9604A44-05A 9604A44-06A 9604A44-07A 9604D46-14A
9604A44-04A 9604A84-02A 9604A96-04A 9604A96-05A
9604A96-07A 9604A96-08A 9604A64-03A 9604871-01A
9604871-02A 9604871-03A 9604871-04A 9604A44-03A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

TCLP 4/20/96

9604A164

CHAIN OF CUSTODY

No. 055892

Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering	ADDRESS: 1575 Treat Blvd. Ste 207	CITY: Walnut Creek	STATE: CA	ZIP CODE: 94598
BP SITE NUMBER: 11133	BP CORNER ADDRESS/CITY: 2220 98th Ave Oakland, CA			CONSULTANT PROJECT NUMBER: 10-025-10-001
CONSULTANT PROJECT MANAGER: Pete Beaver	PHONE NUMBER: 510 295-1650	FAX NUMBER: 510 295 1823		CONSULTANT CONTRACT NUMBER: Pending
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA	PHONE NUMBER: —		FAX NO.: —
LAB CONTACT: ED FRY	LABORATORY ADDRESS: Houston, TX	PHONE NUMBER: —		FAX NO.: —
SAMPLED BY (Please Print Name): JOHN BICKING	SAMPLED BY (Signature): John K. Bicking	SHIPMENT DATE: 4-19-96		SHIPMENT METHOD: Fed Ex

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER: 936071 6820

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE LAB SAMPLE #	HCL TPH-G pH	HCL 624 pH	COMMENTS
11133 INF	4/18/96 1600	GW	6	VOA		1 ✓	1 ✓	
11133 PS	1610		6			1 ✓	1 ✓	
11133 A	1620		6			1 ✓	1 ✓	
11133 B	1630		6			1 ✓	1 ✓	
11133 EFF	1640		6			1 ✓	1 ✓	
							ARS 4/20/96	
LPS			4			✓		

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
John K. Bicking	4/19/96	0800	Patricia Lyelton	4/19/96	0800
Patricia Lyelton	4/19/96	1400	S. West	4/20/96	1000

ADDITIONAL COMMENTS: 6°C Intact

CIV 16722

Distribution: White - Original (with Data); Yellow - BP; Pink - Lab; Blue - Consultant Field Staff

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 4/20/96	Time: 1000

SPL Sample ID: 9604A64

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		6° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	936071 6820	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name: Adriana Salas	Date: 4/20/96

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL, INC.

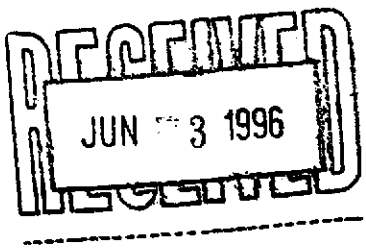
REPORT APPROVAL SHEET

WORK ORDER NUMBER: 96 - 05 - 834

Approved for release by:

Greg Grandits, Laboratory Director — Date: 5/29/96

Ed Fry, Project Manager — Date: 5/28/96



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-01

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
DATE: 05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 INF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:00:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	170	50 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	118
4-Bromofluorobenzene	77

CA LUFT - Gasoline
Analyzed by: VHZ
Date: 05/24/96 12:05:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-01

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 INF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:00:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	28000	1000	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	5200	1000	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	43000	1000	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	30000	1000	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-01

Alisto Engineering

SAMPLE ID: STA #11133 INF

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	104	86	115
1,2-Dichloroethane-d4	50 ug/L	104	76	114
Toluene-d8	50 ug/L	94	88	110

ANALYZED BY: JC DATE/TIME: 05/17/96 16:12:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
DATE: 05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 PS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:05:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	15	12 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	109
4-Bromofluorobenzene	74

CA LUFT - Gasoline
Analyzed by: VHZ
Date: 05/23/96 11:39:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-02

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 PS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:05:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	11	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	600	50	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	360	50	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	3700	50	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
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Certificate of Analysis No. H9-9605834-02

Alisto Engineering

SAMPLE ID: STA #11133 PS

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	100	86	115
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 05/17/96 11:57:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-03

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
DATE: 05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:10:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	0.06	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	126
4-Bromofluorobenzene	76

CA LUFT - Gasoline
Analyzed by: VHZ
Date: 05/23/96 11:12:00

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-03

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:10:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	10	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-03

Alisto Engineering

SAMPLE ID: STA #11133 A

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	92	86	115
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 05/17/96 15:44:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
DATE: 05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:15:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	118
4-Bromofluorobenzene	66

CA LUFT - Gasoline
Analyzed by: VHZ
Date: 05/24/96 02:43:00

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-04

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:15:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	8	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	11	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-04

Alisto Engineering

SAMPLE ID: STA #11133 B

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	94	86	115
1,2-Dichloroethane-d4	50 ug/L	102	76	114
Toluene-d8	50 ug/L	100	88	110

ANALYZED BY: JC DATE/TIME: 05/17/96 12:57:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-05

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
DATE: 05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 EFF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:20:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L

Surrogate	% Recovery
1,4-Difluorobenzene	111
4-Bromofluorobenzene	53

CA LUFT - Gasoline
Analyzed by: VHZ
Date: 05/24/96 03:10:00

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-05

Alisto Engineering
1575 Treat Blvd.
Walnut Creek, CA 94598
ATTN: Peter Beaver

P.O.#
COC# 070729
05/28/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 EFF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 05/14/96 09:20:00
DATE RECEIVED: 05/16/96

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
Carbon Tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chloroethane	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
total-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
Vinyl Chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L

METHOD: 624

(continued on next page)

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9605834-05

Alisto Engineering

SAMPLE ID: STA #11133 EFF

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
4-Bromofluorobenzene	50 ug/L	92	86	115
1,2-Dichloroethane-d4	50 ug/L	100	76	114
Toluene-d8	50 ug/L	98	88	110

ANALYZED BY: JC DATE/TIME: 05/17/96 13:25:00
METHOD: 624
NOTES: * - Practical Quantitation Limit ND - Not Detected
NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL Contract:

Lab Code: Case No.: 9605204 SAS No.: SDG No.:

Matrix Spike - EPA Sample No.: BIOREACTOR

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	20	0	17	85	61-145
Trichloroethene	20	0	18	90	71-120
Benzene	20	0	18	90	76-127
Toluene	20	0	18	90	76-125
Chlorobenzene	20	0	20	100	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	20	18	90	6	14	61-145
Trichloroethene	20	18	90	0	14	71-120
Benzene	20	18	90	0	11	76-127
Toluene	20	18	90	0	13	76-125
Chlorobenzene	20	20	100	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

QC/QA Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960517104642

Reported on: 05/21/96 09:13
Analyzed on: 05/17/96 08:46
Analyst: JC

METHOD 8240/624 L138B01

Compound	Result	Detection Limit	Units
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Dibromochloromethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L

Notes
ND - Not detected.

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

SPL Blank QC Report

Matrix: Aqueous
Sample ID: VLBLK
Batch: L960517104642

Reported on: 05/21/96 09:13
Analyzed on: 05/17/96 08:46
Analyst: JC

METHOD 8240/624 L138B01

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	97	76-114	% Recovery
Toluene-d8	97	88-110	% Recovery
Bromofluorobenzene	96	86-115	% Recovery

Samples in Batch 9605834-01 9605834-02 9605834-03 9605834-04 9605834-05

Notes
ND - Not detected.

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **
Modified 8015 - Gasoline

Matrix: Aqueous
Units: mg/L

Batch Id: HP_J960523140600

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Petr. Hydrocarbon	ND	1.0	0.98	98.0	56 - 130

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE PETR. HYDROCARBON	ND	0.9	0.76	84.4	0.78	86.7	2.69	22	37 - 169

Analyst: VHZ
Sequence Date: 05/23/96
SPL ID of sample spiked: 9605A81-05A
Sample File ID: JJ__350.TX0
Method Blank File ID:
Blank Spike File ID: JJ__341.TX0
Matrix Spike File ID: JJ__345.TX0
Matrix Spike Duplicate File ID: JJ__346.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID): 9605A81-05A 9605A81-02A 9605A81-03A 9605A81-06A 9605834-03A 9605834-02A 9605834-01A 9605834-04A 9605834-05A 9605A81-01A 9605A81-04A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9605834

CHAIN OF CUSTODY

No. 070729 Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering Group	ADDRESS: 1575 Treat Blvd. Ste 201	CITY: Walnut Creek	STATE: CA	ZIP CODE: 94598
BP SITE NUMBER: 11133	BP CORNER ADDRESS/CITY: 2220 98th Ave Oakland, CA			CONSULTANT PROJECT NUMBER: 10-025-10-001
CONSULTANT PROJECT MANAGER: Peter Beaker	PHONE NUMBER: 510 295-1650	FAX NUMBER: 510 295-1823		CONSULTANT CONTRACT NUMBER: Pending
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA	PHONE NUMBER: —		FAX NO.: —
LAB CONTACT: Ed Fry	LABORATORY ADDRESS: Houston, TX	PHONE NUMBER: (713) 660-0901		FAX NO.: —
SAMPLED BY (Please Print Name): John Bicking	SAMPLED BY (Signature): John K. Bicking	SHIPMENT DATE: 5-15-96		SHIPMENT METHOD: Fed Ex

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER: 936071 7096

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	TPH-G (8015)	624 (8240)	COMMENTS
STA# 11133 INF	0900	GW	6	VOA		✓	✓	~~LABELS NOTE~~ TPH-G/BTEX ONLY RUN TPH-G!!! JB
STA# 11133 RS	0905	↓	6	↓		✓	✓	
STA# 11133-A	0910		6			✓	✓	
STA# 11133 B	0915		6			✓	✓	
STA# 11133 EFF	0920		6			✓	✓	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
John K. Bicking	5/14/96	1500	Patricia Lyeton	5/15/96	0800
Patricia Lyeton 5/15/96		1340		5/16/96	1000

ADDITIONAL COMMENTS: intact 4°C ROI

CLV-16722
PKG/50

Distribution: White - Original (with Data); Yellow - BP; Pink - Lab; Blue - Consultant Field Staff

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 5/16/96	Time: 10:00

SPL Sample ID: 9605834

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		4° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	936071096	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name: Elida Brown	Date: 5/16/96

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 96-06-750

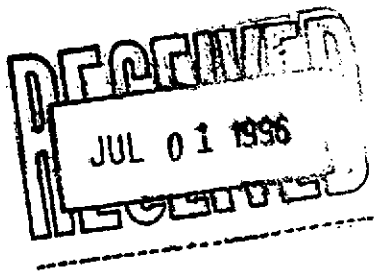
Approved for Release by:

Ed Fry, Project Manager

Date: 6/26/96

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9606750-01

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588,COC#078697
DATE: 06/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 Inf

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 06/13/96 13:15:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10000 P	µg/L
Benzene	16000	500.0 P	µg/L
Toluene	23000	500 P	µg/L
Ethylbenzene	2200	500 P	µg/L
Total Xylene	13800	500 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	94		
4-Bromofluorobenzene	96		
METHOD 8020***			
Analyzed by: LJ			
Date: 06/24/96			
Total Petroleum Hydrocarbons-Gasoline	96	50 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 06/23/96 03:54:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9606750-02

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588,COC#078697
DATE: 06/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 PS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 06/13/96 13:20:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	1000 P	µg/L
Benzene	2000	50.0 P	µg/L
Toluene	3300	50 P	µg/L
Ethylbenzene	460	50 P	µg/L
Total Xylene	3060	50 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	94		
4-Bromofluorobenzene	94		
METHOD 8020***			
Analyzed by: LJ			
Date: 06/24/96			
Total Petroleum Hydrocarbons-Gasoline	18	5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 06/23/96 04:23:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9606750-03

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588,COC#078697
DATE: 06/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 06/13/96 13:25:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	0.5 P	µg/L
Ethylbenzene	ND	0.5 P	µg/L
Total Xylene	ND	0.5 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: LJ			
Date: 06/24/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 06/23/96 04:51:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9606750-04

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588,COC#078697
DATE: 06/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 06/13/96 13:30:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	0.5 P	µg/L
Ethylbenzene	ND	0.5 P	µg/L
Total Xylene	ND	0.5 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: LJ			
Date: 06/24/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 06/23/96 05:19:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9606750-05

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588,COC#078697
DATE: 06/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA #11133 Eff

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 06/13/96 13:35:00
DATE RECEIVED: 06/15/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	0.5 P	µg/L
Ethylbenzene	ND	0.5 P	µg/L
Total Xylene	ND	0.5 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: LJ			
Date: 06/24/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 06/23/96 01:32:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **

METHOD 8020/602

Matrix: Aqueous

Batch Id: HP_N960622104200

Units: µg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	47	94.0	20 - 110
Benzene	ND	50	48	96.0	62 - 121
Toluene	ND	50	47	94.0	66 - 136
EthylBenzene	ND	50	51	102	70 - 136
O Xylene	ND	50	49	98.0	74 - 134
M & P Xylene	ND	100	100	100	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	23	115	23	115	0	20	39 - 150
BENZENE	ND	20	23	115	23	115	0	25	39 - 150
TOLUENE	ND	20	22	110	22	110	0	26	56 - 134
ETHYLBENZENE	ND	20	24	120	23	115	4.26	38	61 - 128
O XYLENE	ND	20	23	115	23	115	0	29	40 - 130
M & P XYLENE	ND	40	49	122	50	125	2.43	20	43 - 152

Analyst: LJ

Sequence Date: 06/24/96

SPL ID of sample spiked: 9606750-05A

Sample File ID: N___757.TX0

Method Blank File ID:

Blank Spike File ID: N___750.TX0

Matrix Spike File ID: N___772.TX0

Matrix Spike Duplicate File ID: N___773.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9606751-01A 9606A02-05A 9606751-03A 9606751-03D
9606751-04A 9606751-05A 9606A02-01A 9606A02-03A
9606A02-04A 9606751-02A 9606750-05A 9606749-08A
9606749-09A 9606749-10A 9606749-11A 9606750-01A
9606750-02A 9606750-03A 9606750-04A

QC Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

Matrix: Aqueous
Units: mg/L

Batch Id: HP_N960623123500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons-Gas	ND	1.0	1.1	110	50 - 150

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
PETROLEUM HYDROCARBONS-GAS	ND	0.9	0.94	104	0.94	104	0	50	50 - 150

Analyst: LJ
Sequence Date: 06/22/96
SPL ID of sample spiked: 9606750-03A
Sample File ID: NN__764.TX0
Method Blank File ID:
Blank Spike File ID: NN__753.TX0
Matrix Spike File ID: NN__774.TX0
Matrix Spike Duplicate File ID: NN__775.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: Temporary Limits
(***) = Source: Temporary Limits

SAMPLES IN BATCH(SPL ID):

9606749-09A 9606749-10A 9606749-11A 9606750-01A
9606750-02A 9606750-03A 9606750-04A 9606751-01A
9606A02-05A 9606751-03A 9606751-04A 9606751-05A
9606A02-01A 9606A02-02A 9606A02-03A 9606A02-04A
9606751-02A 9606750-05A 9606749-08A

QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9606750

TC/GLB 6/19/96

CHAIN OF CUSTODY

No. 078697 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
Alisto Engineering	1575 TREAT Blvd Ste 201	Walnut Creek	CA	94598

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11133	2220 98th AVE OAKLAND, CA	10-025-10-001

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
PETE BEAVOR	510 295-1650	510 295-1823	G749588

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
SCOTT HOOTON	Renton, WA	—	—

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
ED FRY	Houston, TX	—	—

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
JOHN BICKING	John K. Bicking	6-14-96	Fed Ex

AIRBILL NUMBER: ~~0578697~~ 9404778062

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

SAMPLE DESCRIPTION	COLLECTION DATE 6/13/96 / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	HCL TPH-G BTEX										COMMENTS
STA# 11133 INF	1315	GW	3	VOA												
STA# 11133 PS	1320	↓	3	↓												
STA# 11133 A	1325	↓	3	↓												
STA# 11133 B	1330	↓	3	↓												
STA# 11133 EFF	1335	↓	3	↓												

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
John K. Bicking	6/13/96	1730	Patricia Gelton	6/14/96	0800
Patricia Gelton	6/14/96		[illegible] SPL	6-15-96	1000

ADDITIONAL COMMENTS: 2°C Intact

CLV-16722
PKG/50

Distribution: White - Original (with Data) Yellow - BP Pink - Lab Blue - Consultant Field Staff

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 6/15/96	Time: 1000

SPL Sample ID: 96006750

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		2° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #) 940477880 62		
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name: [signature]	Date: 6/15/96

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
Client : ALISTO ENGINEERING ATI I.D. : 505267
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
1	STA#11133 INF	WATER	23-MAY-95	N/A	02-JUN-95	250.00

Parameter	Units	1
CHLOROMETHANE	UG/L	<2500
VINYL CHLORIDE	UG/L	<1300
BROMOMETHANE	UG/L	<2500
CHLOROETHANE	UG/L	<1300
ACETONE	UG/L	7200
1,1-DICHLOROETHENE	UG/L	<250
METHYLENE CHLORIDE	UG/L	<1300
CARBON DISULFIDE	UG/L	<500
TRANS-1,2-DICHLOROETHENE	UG/L	<250
1,1-DICHLOROETHANE	UG/L	<250
CIS-1,2-DICHLOROETHENE	UG/L	<250
CHLOROFORM	UG/L	<250
2-BUTANONE (MEK)	UG/L	<2500
1,1,1-TRICHLOROETHANE	UG/L	<250
CARBON TETRACHLORIDE	UG/L	<250
1,2-DICHLOROETHANE	UG/L	270
BENZENE	UG/L	17000
TRICHLOROETHENE	UG/L	<250
1,2-DICHLOROPROPANE	UG/L	<250
BROMODICHLOROMETHANE	UG/L	<250
4-METHYL-2-PENTANONE (MIBK)	UG/L	<2500
CIS-1,3-DICHLOROPROPENE	UG/L	<250
TOLUENE	UG/L	40000
TRANS-1,3-DICHLOROPROPENE	UG/L	<250
2-HEXANONE (MBK)	UG/L	<2500
1,1,2-TRICHLOROETHANE	UG/L	<250
TETRACHLOROETHENE	UG/L	<250
DIBROMOCHLOROMETHANE	UG/L	<250
CHLOROBENZENE	UG/L	<250
ETHYLBENZENE	UG/L	4500
XYLENES (TOTAL)	UG/L	27000
STYRENE	UG/L	<500
BROMOFORM	UG/L	<1300
1,1,2,2-TETRACHLOROETHANE	UG/L	<250
DICHLORODIFLUOROMETHANE	UG/L	<2500
TRICHLOROFLUOROMETHANE	UG/L	<1300
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<1300
1,2-DICHLOROBENZENE	UG/L	<1300

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY RESULTS

Test : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND, CA

ATI I.D. : 505267

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	STA#11133 INF	WATER	23-MAY-95	N/A	02-JUN-95	250.00

Parameter	Units	1
1,3-DICHLOROBENZENE	UG/L	<1300
1,4-DICHLOROBENZENE	UG/L	<1300
SURROGATES		
1,2-DICHLOROETHANE-D4	%	96
TOLUENE-D8	%	99
BFB	%	94

ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Method : EPA 624 (GC/MS FOR VOLATILE ORGANICS)
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND, CA

WATER
ATI I.D.: 505267

Sample	Parameters	Units	Results
1	UNKNOWN HYDROCARBON	UG/L	2000
	ALIPHATIC HYDROCARBON C5	UG/L	3000
	CYCLIC HYDROCARBON	UG/L	2000
	ETHYLMETHYL BENZENE ISOMER	UG/L	4000
	TRIMETHYL BENZENE ISOMER	UG/L	3000

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank I.D. : 35591
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND, CA

ATI I.D. : 505267
Date Extracted: N/A
Date Analyzed : 02-JUN-95
Dil. Factor : 1.00

Parameters	Units	Results
CHLOROMETHANE	UG/L	<10
VINYL CHLORIDE	UG/L	<5
BROMOMETHANE	UG/L	<10
CHLOROETHANE	UG/L	<5
ACETONE	UG/L	<10
1,1-DICHLOROETHENE	UG/L	<1
METHYLENE CHLORIDE	UG/L	<5
CARBON DISULFIDE	UG/L	<2
TRANS-1,2-DICHLOROETHENE	UG/L	<1
1,1-DICHLOROETHANE	UG/L	<1
CIS-1,2-DICHLOROETHENE	UG/L	<1
CHLOROFORM	UG/L	<1
2-BUTANONE (MEK)	UG/L	<10
1,1,1-TRICHLOROETHANE	UG/L	<1
CARBON TETRACHLORIDE	UG/L	<1
1,2-DICHLOROETHANE	UG/L	<1
BENZENE	UG/L	<1
TRICHLOROETHENE	UG/L	<1
1,2-DICHLOROPROPANE	UG/L	<1
BROMODICHLOROMETHANE	UG/L	<1
4-METHYL-2-PENTANONE (MIBK)	UG/L	<10
CIS-1,3-DICHLOROPROPENE	UG/L	<1
TOLUENE	UG/L	<2
TRANS-1,3-DICHLOROPROPENE	UG/L	<1
2-HEXANONE (MBK)	UG/L	<10
1,1,2-TRICHLOROETHANE	UG/L	<1
TETRACHLOROETHENE	UG/L	<1
DIBROMOCHLOROMETHANE	UG/L	<1
CHLOROBENZENE	UG/L	<1
ETHYLBENZENE	UG/L	<1
XYLENES (TOTAL)	UG/L	<1
STYRENE	UG/L	<2
BROMOFORM	UG/L	<5
1,1,2,2-TETRACHLOROETHANE	UG/L	<1
DICHLORODIFLUOROMETHANE	UG/L	<10
TRICHLOROFLUOROMETHANE	UG/L	<5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UG/L	<5
1,2-DICHLOROBENZENE	UG/L	<5
1,3-DICHLOROBENZENE	UG/L	<5
1,4-DICHLOROBENZENE	UG/L	<5
SURROGATES		
1,2-DICHLOROETHANE-D4	%	92
TOLUENE-D8	%	96
BFB	%	92

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

REAGENT BLANK
ADDITIONAL COMPOUNDS (SEMI-QUANTITATED)

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank I.D. : 35591 ATI I.D. : 505267
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name: BP SITE#11133/2220 98TH AVE. OAKLAND, CA

Parameters	Units	Results
NONE DETECTED	N/A	N/A

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

MSMSD

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
MSMSD # : 76115
Client : ALISTO ENGINEERING

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

ATI I.D. : 505267
Date Extracted: N/A
Date Analyzed : 02-JUN-95
Sample Matrix : WATER
REF I.D. : 505267-01

Parameters	Units	Sample Result	Conc Spike	Spiked Sample	% Rec	Dup Spike	Dup % Rec	RPD
1,1-DICHLOROETHENE	UG/L	<250	13000	13000	100	13000	100	0
BENZENE	UG/L	17000	13000	32000	115	31000	108	3
TRICHLOROETHENE	UG/L	<250	13000	12000	92	13000	100	8
TOLUENE	UG/L	40000	13000	58000	138	57000	131	2
CHLOROBENZENE	UG/L	<250	13000	14000	108	14000	108	0

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

GAS CHROMATOGRAPHY/MASS SPECTROSCOPY - QUALITY CONTROL

BLANK SPIKE

Test : EPA 8240 (GC/MS FOR VOLATILE ORGANICS)
Blank Spike #: 56878
Client : ALISTO ENGINEERING
Project # : G418846/10-025-07-001
Project Name : BP SITE#11133/2220 98TH AVE. OAKLAND, CA

ATI I.D. : 505267
Date Extracted: N/A
Date Analyzed : 02-JUN-95
Sample Matrix : WATER

Parameters	Units	Blank Result	Spiked Sample	Spike Conc.	% Rec
1,1-DICHLOROETHENE	UG/L	<1	48	50	96
BENZENE	UG/L	<1	49	50	98
TRICHLOROETHENE	UG/L	<1	47	50	94
TOLUENE	UG/L	<2	50	50	100
CHLOROBENZENE	UG/L	<1	53	50	106

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

CHAIN OF CUSTODY

No. 061523 Page 1 of 1

CONSULTANT'S NAME	ADDRESS	CITY	STATE	ZIP CODE
ALISTO ENGINEERING GROUP	1575 TREAT Blvd. Ste 201	WALNUT CREEK	CA	94596

BP SITE NUMBER	BP CORNER ADDRESS/CITY	CONSULTANT PROJECT NUMBER
11133	2220 98th AVE OAKLAND, CA	10-025-07-001

CONSULTANT PROJECT MANAGER	PHONE NUMBER	FAX NUMBER	CONSULTANT CONTRACT NUMBER
PETE BENNETT	510 295-1650	510 295-1823	G418846

BP CONTACT	BP ADDRESS	PHONE NUMBER	FAX NO.
SCOTT HOOTON	Renton, WA		

LAB CONTACT	LABORATORY ADDRESS	PHONE NUMBER	FAX NO.
Gary Stuart	San Diego, CA		

SAMPLED BY (Please Print Name)	SAMPLED BY (Signature)	SHIPMENT DATE	SHIPMENT METHOD
JOHN BIDGANEG	John K. Bidg		

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER

SAMPLE DESCRIPTION	COLLECTION DATE / COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	HCL / 624	COMMENTS
STA# 11133 INF	1630	GW	3	VOA	01	✓	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
John K. Bidg	5/24/95	1000			
			C. Trost	5/25/95	10:00

ADDITIONAL COMMENTS

505267

2.0°c

CLV-16722

Distribution: White - Original (with Data)
Yellow - BP
Pink - Lab
Blue - Consultant Field Staff

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 96-08-554

Approved for Release by:

Ed Fry, Project Manager

Date: 8/21/96

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

SPL®

Certificate of Analysis No. H9-9608554-01

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588 , COC#082736
DATE: 08/20/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA#11133 INF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 08/08/96 13:00:00
DATE RECEIVED: 08/13/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	2300	1000 P	µg/L
Benzene	23000	50 P	µg/L
Toluene	13000	100 P	µg/L
Ethylbenzene	2500	100 P	µg/L
Total Xylene	11000	100 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	123 «		
4-Bromofluorobenzene	103		
METHOD 8020***			
Analyzed by: YN			
Date: 08/17/96			
Total Petroleum Hydrocarbons-Gasoline	75	5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	137		
4-Bromofluorobenzene	100		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 08/17/96 04:34:00			

(P) - Practical Quantitation Limit « - Recovery beyond control limits.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

Certificate of Analysis No. H9-9608554-05

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588 , COC#082736
DATE: 08/20/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA#11133 PS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 08/08/96 13:02:00
DATE RECEIVED: 08/13/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	37	10 P	µg/L
Benzene	3.2	0.5 P	µg/L
Toluene	6.6	1.0 P	µg/L
Ethylbenzene	1.6	1.0 P	µg/L
Total Xylene	21.2	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: YN			
Date: 08/17/96			
Total Petroleum Hydrocarbons-Gasoline	0.18	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	113		
4-Bromofluorobenzene	93		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 08/17/96 05:33:00			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

Certificate of Analysis No. H9-9608554-02

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588 , COC#082736
DATE: 08/20/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA#11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 08/08/96 13:05:00
DATE RECEIVED: 08/13/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	61	10 P	µg/L
Benzene	16	0.5 P	µg/L
Toluene	12	1.0 P	µg/L
Ethylbenzene	1.8	1.0 P	µg/L
Total Xylene	10.9	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: YN			
Date: 08/17/96			
Total Petroleum Hydrocarbons-Gasoline	0.060	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	117		
4-Bromofluorobenzene	90		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 08/17/96 04:05:00			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

Certificate of Analysis No. H9-9608554-03

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588 , COC#082736
DATE: 08/20/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA#11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 08/08/96 13:10:00
DATE RECEIVED: 08/13/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	48	10 P	µg/L
Benzene	2.3	0.5 P	µg/L
Toluene	1.2	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	1.3	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	83		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: YN			
Date: 08/17/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	123		
4-Bromofluorobenzene	90		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 08/17/96 05:04:00			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

Certificate of Analysis No. H9-9608554-04

BP Oil Company
295 SW 41st St, Bldg 13,Ste N
Renton, WA 98055
ATTN: Scott Hooton

P.O.# G749588 , COC#082736
DATE: 08/20/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave, Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: STA#11133 EFF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 08/08/96 13:15:00
DATE RECEIVED: 08/13/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	55	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	80		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: YN			
Date: 08/16/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	110		
4-Bromofluorobenzene	87		
CA LUFT - Gasoline			
Analyzed by: YN			
Date: 08/16/96 05:50:00			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020***

PAGE

Matrix: Aqueous
Units: µg/L

Batch Id: HP_J960816074600

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	46	92.0	20 - 110
Benzene	ND	50	41	82.0	62 - 121
Toluene	ND	50	43	86.0	66 - 136
EthylBenzene	ND	50	43	86.0	70 - 136
O Xylene	ND	50	45	90.0	74 - 134
M & P Xylene	ND	100	92	92.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	22	110	22	110	0	20	39 - 150
BENZENE	53	20	71	90.0	70	85.0	5.71	25	39 - 150
TOLUENE	28	20	47	95.0	46	90.0	5.41	26	56 - 134
ETHYLBENZENE	29	20	47	90.0	46	85.0	5.71	38	61 - 128
O XYLENE	33	20	52	95.0	51	90.0	5.41	29	40 - 130
M & P XYLENE	89	40	120	77.5	120	77.5	0	20	43 - 152

Analyst: YN
Sequence Date: 08/16/96
SPL ID of sample spiked: 9608553-03A
Sample File ID: J_H6633.TX0
Method Blank File ID:
Blank Spike File ID: J_H6620.TX0
Matrix Spike File ID: J_H6626.TX0
Matrix Spike Duplicate File ID: J_H6627.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (4th Q '95)
(***) = Source: SPL-Houston Historical Data (4th Q '95)

SAMPLES IN BATCH(SPL ID):

9608605-03A 9608609-03A 9608553-03A 9608546-09A
9608601-03A 9608546-05A 9608554-02A 9608554-01A
9608554-03A 9608554-05A 9608553-01A 9608626-09A
9608626-12A 9608626-15A 9608626-16A

** SPL BATCH QUALITY CONTROL REPORT **

METHOD 8020/602

PAGE

Matrix: Aqueous

Batch Id: HP_J960816002700

Units: µg/L

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	51	102	20 - 110
Benzene	ND	50	43	86.0	62 - 121
Toluene	ND	50	44	88.0	66 - 136
EthylBenzene	ND	50	44	88.0	70 - 136
O Xylene	ND	50	47	94.0	74 - 134
M & P Xylene	ND	100	97	97.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	38	190 *	41	205 *	7.59	20	39 - 150
BENZENE	13	20	33	100	33	100	0	25	39 - 150
TOLUENE	7.2	20	25	89.0	26	94.0	5.46	26	56 - 134
ETHYLBENZENE	6.9	20	27	100	27	100	0	38	61 - 128
O XYLENE	93	20	110	NC	110	NC	NC	29	40 - 130
M & P XYLENE	64	40	110	115	100	90.0	24.4 *	20	43 - 152

Analyst: YN

Sequence Date: 08/16/96

SPL ID of sample spiked: 9608546-02A

Sample File ID: J_H6608.TX0

Method Blank File ID:

Blank Spike File ID: J_H6603.TX0

Matrix Spike File ID: J_H6587.TX0

Matrix Spike Duplicate File ID: J_H6588.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical Data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9608554-04A 9608552-01A 9608552-02A 9608552-03A
9608546-07A 9608552-04A 9608546-02A 9608672-04A
9608672-02A 9608546-01A 9608546-08A 9608546-10A
9608546-07A 9608546-06A 9608546-04A

SPL BATCH QUALITY CONTROL REPORT ** PAGE

Modified 8015 - Gasoline

Matrix: Aqueous Batch Id: HP_J960816091400

Units: mg/L

L A B O R A T O R Y C O N T R O L S A M P L E

S P I K E C O M P O U N D S	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Petr. Hydrocarbon	ND	1.00	0.88	88.0	56 - 130

M A T R I X S P I K E S

S P I K E C O M P O U N D S	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE PETR. HYDROCARBON	ND	0.9	0.76	84.4	0.85	94.4	11.2	22	37 - 169

Analyst: YN

Sequence Date: 08/16/96

SPL ID of sample spiked: 9608546-05A

Sample File ID: HH6_636.TX0

Method Blank File ID:

Blank Spike File ID: HH6_623.TX0

Matrix Spike File ID: HH6_628.TX0

Matrix Spike Duplicate File ID: HH6_629.TX0

* = Values Outside QC Range

NC = Not Calculated (Sample exceeds spike by factor of 4 or more)

ND = Not Detected/Below Detection Limit

% Recovery = [(<1> - <2>) / <3>] x 100

LCS % Recovery = (<1> / <3>) x 100

Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100

(**) = Source: SPL-Houston Historical data (3rd Q '95)

(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID): 9608609-03A 9608553-03A 9608546-09A 9608546-05A 9608554-02A 9608554-01A 9608554-03A 9608554-05A 9608553-01A 9608626-09A 9608626-10A 9608626-11A 9608626-14A 9608626-15A 9608626-17A

Matrix: Aqueous
Units: mg/L

Batch Id: HP_J960816015500

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Gasoline Petr. Hydrocarbon	ND	0.9	0.93	103	56 - 130

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
GASOLINE PETR. HYDROCARBON	ND	0.9	1.03	114	1.04	116	1.74	22	37 - 169

Analyst: YN
Sequence Date: 08/16/96
SPL ID of sample spiked: 9608546-08A
Sample File ID: HH6_612.TX0
Method Blank File ID:
Blank Spike File ID: JJH6584.TX0
Matrix Spike File ID: HH6_618.TX0
Matrix Spike Duplicate File ID: HH6_619.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (3rd Q '95)

SAMPLES IN BATCH(SPL ID):

9608546-01A 9608546-08A 9608546-10A 9608546-07A
9608546-06A 9608546-04A 9608552-04A 9608554-04A
9608546-02A 9608552-01A 9608552-02A 9608552-03A
9608552-04A 9608546-02A

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
METHOD 8020* **				**BATCH#:**HP_J960816002700
WORK ORDER: 9608554-04A				**CLIENT SAMPLE ID:**STA#11133 EFF
1,4-Difluorobenzene	30	24	80	74- 120
4-Bromofluorobenzene	30	30	100	58- 144
METHOD 8020A * **				**BATCH#:**HP_J960816002700
WORK ORDER: Method Blank				**CLIENT SAMPLE ID:**
1,4-Difluorobenzene	30	25	83	74- 120
4-Bromofluorobenzene	30	30	100	58- 144
METHOD 8020A * **				**BATCH#:**HP_J960816002700
WORK ORDER: LCS				**CLIENT SAMPLE ID:**
1,4-Difluorobenzene	30	28	93.3	74- 120
4-Bromofluorobenzene	30	30	100	58- 144
METHOD 8020A * **				**BATCH#:**HP_J960816002700
WORK ORDER: Matrix Spike				**CLIENT SAMPLE ID:**9608546-02A
1,4-DIFLUOROBENZENE	30	26	87	74- 120
4-BROMOFLUOROBENZENE	30	31	103	58- 144
METHOD 8020A * **				**BATCH#:**HP_J960816002700
WORK ORDER: Matrix Spike Dup.				**CLIENT SAMPLE ID:**9608546-02A
1,4-Difluorobenzene	30	25	83	74- 120
4-Bromofluorobenzene	30	29	97	58- 144
CA LUFT - Gasoline				**BATCH#:**HP_J960816015500
WORK ORDER: 9608554-04A				**CLIENT SAMPLE ID:**STA#11133 EFF
1,4-Difluorobenzene	30	33	110	50- 150
4-Bromofluorobenzene	30	26	87	50- 150
Modified 8015 - Gasoline				**BATCH#:**HP_J960816015500
WORK ORDER: Method Blank				**CLIENT SAMPLE ID:**
4-Bromofluorobenzene	30	26	25.8	52- 152
1,4-Difluorobenzene	30	35	34.6	54- 137
Modified 8015 - Gasoline				**BATCH#:**HP_J960816015500
WORK ORDER: Matrix Spike				**CLIENT SAMPLE ID:**9608546-08A
4-Bromofluorobenzene	50	28	56	52- 152

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	50	32	64	54- 137

Modified 8015 - Gasoline **BATCH#:**HP_J960816015500
WORK ORDER: Matrix Spike Dup. **CLIENT SAMPLE ID:**9608546-08A

4-Bromofluorobenzene	50	29	58	52- 152
1,4-Difluorobenzene	50	32	64	54- 137

METHOD 8020* **BATCH#:**HP_J960816074600
WORK ORDER: 9608554-01A **CLIENT SAMPLE ID:**STA#11133 INF

1,4-Difluorobenzene	30	37.0000	123 «	74- 120
4-Bromofluorobenzene	30	31.0000	103	58- 144

METHOD 8020* **BATCH#:**HP_J960816074600
WORK ORDER: 9608554-02A **CLIENT SAMPLE ID:**STA#11133 A

1,4-Difluorobenzene	30	27	90	74- 120
4-Bromofluorobenzene	30	30	100	58- 144

METHOD 8020* **BATCH#:**HP_J960816074600
WORK ORDER: 9608554-03A **CLIENT SAMPLE ID:**STA#11133 B

1,4-Difluorobenzene	30	25	83	74- 120
4-Bromofluorobenzene	30	30	100	58- 144

METHOD 8020* **BATCH#:**HP_J960816074600
WORK ORDER: 9608554-05A **CLIENT SAMPLE ID:**STA#11133 PS

1,4-Difluorobenzene	30	26	87	74- 120
4-Bromofluorobenzene	30	30	100	58- 144

METHOD 8020* **BATCH#:**HP_J960816074600
WORK ORDER: Method Blank **CLIENT SAMPLE ID:**

1,4-Difluorobenzene		25	25.0	74- 120
4-Bromofluorobenzene		30	30.0	58- 144

METHOD 8020* **BATCH#:**HP_J960816074600
WORK ORDER: LCS **CLIENT SAMPLE ID:**

1,4-Difluorobenzene	30	28	93.3	74- 120
4-Bromofluorobenzene	30	31	103	58- 144

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS

METHOD 8020* BATCH#:HP_J960816074600**
WORK ORDER: Matrix Spike **CLIENT SAMPLE ID:**9608553-03A

1,4-DIFLUOROBENZENE	30	31	103	74- 120
4-BROMOFLUOROBENZENE	30	31	103	58- 144

METHOD 8020* BATCH#:HP_J960816074600**
WORK ORDER: Matrix Spike Dup. **CLIENT SAMPLE ID:**9608553-03A

1,4-Difluorobenzene	30	31	103	74- 120
4-Bromofluorobenzene	30	30	100	58- 144

CA LUFT - Gasoline BATCH#:HP_J960816091400
WORK ORDER: 9608554-01A **CLIENT SAMPLE ID:**STA#11133 INF

1,4-Difluorobenzene	30	41.0000	137	50- 150
4-Bromofluorobenzene	30	30.0000	100	50- 150

CA LUFT - Gasoline BATCH#:HP_J960816091400
WORK ORDER: 9608554-02A **CLIENT SAMPLE ID:**STA#11133 A

1,4-Difluorobenzene	30	35	117	50- 150
4-Bromofluorobenzene	30	27	90	50- 150

CA LUFT - Gasoline BATCH#:HP_J960816091400
WORK ORDER: 9608554-03A **CLIENT SAMPLE ID:**STA#11133 B

1,4-Difluorobenzene	30	37	123	50- 150
4-Bromofluorobenzene	30	27	90	50- 150

CA LUFT - Gasoline BATCH#:HP_J960816091400
WORK ORDER: 9608554-05A **CLIENT SAMPLE ID:**STA#11133 PS

1,4-Difluorobenzene	30	34	113	50- 150
4-Bromofluorobenzene	30	28	93	50- 150

Modified 8015 - Gasoline BATCH#:HP_J960816091400
WORK ORDER: Method Blank **CLIENT SAMPLE ID:**

4-Bromofluorobenzene	30	26	26.2	52- 152
1,4-Difluorobenzene	30	33	33.1	54- 137

Modified 8015 - Gasoline BATCH#:HP_J960816091400
WORK ORDER: Matrix Spike **CLIENT SAMPLE ID:**9608546-05A

4-Bromofluorobenzene	50	28	56	52- 152

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	50	28	56	54- 137

Modified 8015 - Gasoline **BATCH#:**HP_J960816091400
WORK ORDER: Matrix Spike Dup. **CLIENT SAMPLE ID:**9608546-05A

4-Bromofluorobenzene	50	29	58	52- 152
1,4-Difluorobenzene	50	27	54	54- 137

« = Recovery outside of control limits
*** = Methods for Chemical Analysis of Water & Wastes,1983,EPA**
**** = Standard Methods for Examination of Water & Wastewater,17th**
***** = Test Methods for Evaluating Solid Waste,EPA SW846,3rd**

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

9608554
To BE 8/14

CHAIN OF CUSTODY

No. 082736 Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering Group	ADDRESS: 1575 TREAT Blvd. Ste 201	CITY: Walnut Creek	STATE: CA ZIP CODE: 94598
BP SITE NUMBER: 11133	BP CORNER ADDRESS/CITY: 2220 98th AVE OAKLAND CA		CONSULTANT PROJECT NUMBER: 10-025-10-001
CONSULTANT PROJECT MANAGER: PETER BEAVER	PHONE NUMBER: 510-295-1650	FAX NUMBER: 510 295-1823	CONSULTANT CONTRACT NUMBER: G7749588
BP CONTACT: SCOTT HOOTON	BP ADDRESS: Renton, WA	PHONE NUMBER: —	FAX NO. —
LAB CONTACT: ED FRY	LABORATORY ADDRESS: HOUSTON, TX	PHONE NUMBER: —	FAX NO. —
SAMPLED BY (Please Print Name): JOHN BICKING	SAMPLED BY (Signature): John K. Bicking	SHIPMENT DATE: 8/12/96	SHIPMENT METHOD: Fed Ex
TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks	ANALYSIS REQUIRED		AIRBILL NUMBER: 940477853O

SAMPLE DESCRIPTION	COLLECTION DATE	COLLECTION TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE	LAB SAMPLE #	COMMENTS
STA# 11133	8/12/96	1300	GW			HCL	TPH-17	
11 17 INF		1300		3	VOA		15TER	
11 11 A		1305		3				
11 11 B		1310		3				
11 11 EFF		1315		3				
11 11 PS		1302		3				

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
John K. Bicking	8/12/96	1430	P. Lytton	8/12/96	0800
P. Lytton	8/12/96	1515	S. West	8/13/96	0936

ADDITIONAL COMMENTS: 2°C ROI, Intact

CLV-16722
PKG/50

Distribution: White - Original (with Data)
Yellow - BP
Pink - Lab
Blue - Consultant Field Staff

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
8/13/96	0930

SPL Sample ID:
9608554

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		2° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	9404778530	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
S. West	8/13/96

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 96-09-A41

Approved for Release by:

Ed Fry, Project Manager

Date: 9/26/96

Greg Grandits
Laboratory Director

Idelis Williams
Quality Assurance Officer

The attached analytical data package may not

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9609A41-01

BP Oil Company
1575 Treat Blvd Ste 201
Walnut Creek, CA 94598
ATTN: Scott Hooton

P.O.# G749588 , COC#084362
DATE: 09/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 INF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 09/17/96 11:00:00
DATE RECEIVED: 09/19/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10000 P	µg/L
Benzene	23000	500 P	µg/L
Toluene	33000	1000 P	µg/L
Ethylbenzene	5100	1000 P	µg/L
Total Xylene	35000	1000 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: VHZ			
Date: 09/25/96			
Total Petroleum Hydrocarbons-Gasoline	210	50 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: VHZ			
Date: 09/25/96 03:31:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9609A41-02

BP Oil Company
1575 Treat Blvd Ste 201
Walnut Creek, CA 94598
ATTN: Scott Hooton

P.O.# G749588 , COC#084362
DATE: 09/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 PS

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 09/17/96 11:05:00
DATE RECEIVED: 09/19/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	39	10 P	µg/L
Benzene	5.8	0.5 P	µg/L
Toluene	7.7	1.0 P	µg/L
Ethylbenzene	1.9	1.0 P	µg/L
Total Xylene	18.7	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	110		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: VHZ			
Date: 09/25/96			
Total Petroleum Hydrocarbons-Gasoline	0.60	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	100		
4-Bromofluorobenzene	80		
CA LUFT - Gasoline			
Analyzed by: VHZ			
Date: 09/25/96 03:59:00			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9609A41-03

BP Oil Company
1575 Treat Blvd Ste 201
Walnut Creek, CA 94598
ATTN: Scott Hooton

P.O.# G749588 , COC#084362
DATE: 09/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 A

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 09/17/96 11:10:00
DATE RECEIVED: 09/19/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	1.4	0.5 P	µg/L
Toluene	1.6	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	7.5	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: VHZ			
Date: 09/25/96			
Total Petroleum Hydrocarbons-Gasoline	0.14	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: VHZ			
Date: 09/25/96 04:28:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9609A41-04

BP Oil Company
1575 Treat Blvd Ste 201
Walnut Creek, CA 94598
ATTN: Scott Hooton

P.O.# G749588 , COC#084362
DATE: 09/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 B

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 09/17/96 11:15:00
DATE RECEIVED: 09/19/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	14	10 P	µg/L
Benzene	0.78	0.5 P	µg/L
Toluene	1.6	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	107		
4-Bromofluorobenzene	97		
METHOD 8020***			
Analyzed by: VHZ			
Date: 09/25/96			
Total Petroleum Hydrocarbons-Gasoline	0.052	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: VHZ			
Date: 09/25/96 04:56:00			

(P) - Practical Quantitation Limit ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9609A41-05

BP Oil Company
1575 Treat Blvd Ste 201
Walnut Creek, CA 94598
ATTN: Scott Hooton

P.O.# G749588 , COC#084362
DATE: 09/25/96

PROJECT: BP Oil #11133
SITE: 2220 98th Ave Oakland, CA
SAMPLED BY: Alisto Engineering
SAMPLE ID: Sta# 11133 EFF

PROJECT NO: 10-025-10-001
MATRIX: WATER
DATE SAMPLED: 09/17/96 11:20:00
DATE RECEIVED: 09/19/96

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
MTBE	ND	10 P	µg/L
Benzene	ND	0.5 P	µg/L
Toluene	ND	1.0 P	µg/L
Ethylbenzene	ND	1.0 P	µg/L
Total Xylene	ND	1.0 P	µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	103		
4-Bromofluorobenzene	93		
METHOD 8020***			
Analyzed by: VHZ			
Date: 09/24/96			
Total Petroleum Hydrocarbons-Gasoline	ND	0.05 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	77		
CA LUFT - Gasoline			
Analyzed by: VHZ			
Date: 09/24/96 07:28:00			

ND - Not detected. (P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.
SPL California License # 1903

QUALITY CONTROL

DOCUMENTATION

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **
METHOD 8020/602

Matrix: Aqueous
Units: µg/L

Batch Id: HP_N960924130000

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
MTBE	ND	50	42	84.0	63 - 120
Benzene	ND	50	43	86.0	62 - 121
Toluene	ND	50	40	80.0	66 - 136
EthylBenzene	ND	50	42	84.0	70 - 136
O Xylene	ND	50	44	88.0	74 - 134
M & P Xylene	ND	100	88	88.0	77 - 140

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
MTBE	ND	20	19	95.0	18	90.0	5.41	20	39 - 150
BENZENE	ND	20	18	90.0	16	80.0	11.8	25	39 - 150
TOLUENE	ND	20	17	85.0	14	70.0	19.4	26	56 - 134
ETHYLBENZENE	ND	20	17	85.0	15	75.0	12.5	38	61 - 128
O XYLENE	ND	20	18	90.0	15	75.0	18.2	29	40 - 130
M & P XYLENE	ND	40	37	92.5	31	77.5	17.6	20	43 - 152

Analyst: VHZ
Sequence Date: 09/24/96
SPL ID of sample spiked: 9609A37-09A
Sample File ID: N_6I009.TX0
Method Blank File ID:
Blank Spike File ID: N_I6993.TX0
Matrix Spike File ID: N_6I031.TX0
Matrix Spike Duplicate File ID: N_6I032.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: SPL-Houston Historical Data (3rd Q '95)
(***) = Source: SPL-Houston Historical Data (2nd Q '95)

SAMPLES IN BATCH(SPL ID):

9609A37-10A 9609A37-11A 9609A37-12A 9609A37-13A
9609A37-14A 9609A37-15A 9609A37-16A 9609A40-01A
9609A40-02A 9609A41-01A 9609A41-02A 9609A41-03A
9609A41-04A 9609761-01A 9609761-02A 9609761-03A
9609A40-03A 9609A41-05A 9609A37-09A

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL BATCH QUALITY CONTROL REPORT **
CA LUFT

Matrix: Aqueous
Units: mg/L

Batch Id: HP_N960924142600

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Petroleum Hydrocarbons-Gas	ND	1.0	1.08	108	50 - 150

MATRIX SPIKES

SPIKE COMPOUNDS	Sample Results <2>	Spike Added <3>	Matrix Spike Result <1>	Matrix Spike Recovery <4>	Matrix Spike Duplicate Result <1>	Matrix Spike Duplicate Recovery <5>	MS/MSD Relative % Difference	QC Limits(***) (Advisory) RPD Max.	QC Limits(***) (Advisory) Recovery Range
PETROLEUM HYDROCARBONS-GAS	ND	0.9	0.90	100	0.93	103	2.96	50	50 - 150

Analyst: VHZ
Sequence Date: 09/24/96
SPL ID of sample spiked: 9609A41-05A
Sample File ID: NN6I007.TX0
Method Blank File ID:
Blank Spike File ID: NNI6995.TX0
Matrix Spike File ID: NN6I003.TX0
Matrix Spike Duplicate File ID: NN6I004.TX0

* = Values Outside QC Range
NC = Not Calculated (Sample exceeds spike by factor of 4 or more)
ND = Not Detected/Below Detection Limit
% Recovery = [(<1> - <2>) / <3>] x 100
LCS % Recovery = (<1> / <3>) x 100
Relative Percent Difference = |(<4> - <5> | / [(<4> + <5>) x 0.5] x 100
(**) = Source: Temporary Limits
(***) = Source: Temporary Limits

SAMPLES IN BATCH(SPL ID):

9609A37-12A 9609A37-13A 9609A37-14A 9609A37-15A
9609A37-16A 9609A40-01A 9609A40-02A 9609A41-01A
9609A41-02A 9609A41-03A 9609A41-04A 9609761-01A
9609761-02A 9609761-03A 9609A40-03A 9609A41-05A
9609A37-08A 9609A37-09A 9609A37-10A 9609A37-11A

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

METHOD 8020* BATCH#:HP_N960924130000**
WORK ORDER: 9609A41-01A **CLIENT SAMPLE ID:**Sta# 11133 INF

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	31.0000	103	70- 131
4-Bromofluorobenzene	30	28.0000	93	43- 135

METHOD 8020* BATCH#:HP_N960924130000**
WORK ORDER: 9609A41-02A **CLIENT SAMPLE ID:**Sta# 11133 PS

1,4-Difluorobenzene	30	33	110	70- 131
4-Bromofluorobenzene	30	28	93	43- 135

METHOD 8020* BATCH#:HP_N960924130000**
WORK ORDER: 9609A41-03A **CLIENT SAMPLE ID:**Sta# 11133 A

1,4-Difluorobenzene	30	32	107	70- 131
4-Bromofluorobenzene	30	28	93	43- 135

METHOD 8020* BATCH#:HP_N960924130000**
WORK ORDER: 9609A41-04A **CLIENT SAMPLE ID:**Sta# 11133 B

1,4-Difluorobenzene	30	32	107	70- 131
4-Bromofluorobenzene	30	29	97	43- 135

METHOD 8020* BATCH#:HP_N960924130000**
WORK ORDER: 9609A41-05A **CLIENT SAMPLE ID:**Sta# 11133 EFF

1,4-Difluorobenzene	30	31	103	70- 131
4-Bromofluorobenzene	30	28	93	43- 135

METHOD 8020A * BATCH#:HP_N960924130000**
WORK ORDER: Method Blank **CLIENT SAMPLE ID:**

1,4-Difluorobenzene	30	31	103	74- 131
4-Bromofluorobenzene	30	29	97	43- 135

METHOD 8020A * BATCH#:HP_N960924130000**
WORK ORDER: Matrix Spike **CLIENT SAMPLE ID:**9609A37-09A

1,4-DIFLUOROBENZENE	30	29	97	70- 131
4-BROMOFLUOROBENZENE	30	30	100	43- 135

METHOD 8020A * BATCH#:HP_N960924130000**
WORK ORDER: Matrix Spike Dup. **CLIENT SAMPLE ID:**9609A37-09A

1,4-Difluorobenzene	30	28	93	70- 131

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
4-Bromofluorobenzene	30	27	90	43- 135

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: 9609A41-01A **CLIENT SAMPLE ID:**Sta# 11133 INF

1,4-Difluorobenzene	30	27.0000	90	50- 150
4-Bromofluorobenzene	30	23.0000	77	50- 150

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: 9609A41-02A **CLIENT SAMPLE ID:**Sta# 11133 PS

1,4-Difluorobenzene	30	30	100	50- 150
4-Bromofluorobenzene	30	24	80	50- 150

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: 9609A41-03A **CLIENT SAMPLE ID:**Sta# 11133 A

1,4-Difluorobenzene	30	27	90	50- 150
4-Bromofluorobenzene	30	23	77	50- 150

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: 9609A41-04A **CLIENT SAMPLE ID:**Sta# 11133 B

1,4-Difluorobenzene	30	27	90	50- 150
4-Bromofluorobenzene	30	23	77	50- 150

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: 9609A41-05A **CLIENT SAMPLE ID:**Sta# 11133 EFF

1,4-Difluorobenzene	30	27	90	50- 150
4-Bromofluorobenzene	30	23	77	50- 150

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: Method Blank **CLIENT SAMPLE ID:**

1,4-Difluorobenzene	30	27	26.9	50- 150
4-Bromofluorobenzene	30	23	22.5	50- 150

CA LUFT - Gasoline **BATCH#:**HP_N960924142600
WORK ORDER: Matrix Spike **CLIENT SAMPLE ID:**9609A41-05A

1,4-Difluorobenzene	30	26	87	50- 150
4-Bromofluorobenzene	30	23	77	50- 150

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

CA LUFT - Gasoline BATCH#:HP_N960924142600
WORK ORDER: Matrix Spike Dup. CLIENT SAMPLE ID:9609A41-05A

	AMOUNT ADDED	CONC. MEASURED	RECOVERY	LIMITS
1,4-Difluorobenzene	30	27	90	50- 150
4-Bromofluorobenzene	30	24	80	50- 150

« = Recovery outside of control limits
* = Methods for Chemical Analysis of Water & Wastes,1983,EPA
** = Standard Methods for Examination of Water & Wastewater,17th
*** = Test Methods for Evaluating Solid Waste,EPA SW846,3rd

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

96-09-A41

CHAIN OF CUSTODY

No. 084362 Page 1 of 1

CONSULTANT'S NAME: Alisto Engineering Group	ADDRESS: 1575 Treat Blvd. Ste 201	CITY: Walnut Creek	STATE: CA ZIP CODE: 94598
BP SITE NUMBER: 11133	BP CORNER ADDRESS/CITY: 2220 98th Ave Oakland, CA		CONSULTANT PROJECT NUMBER: 10-025-10-007
CONSULTANT PROJECT MANAGER: Peter Beamon	PHONE NUMBER: 510 291 1650	FAX NUMBER: 510 295 1823	CONSULTANT CONTRACT NUMBER: G7495 88
BP CONTACT: Scott Hooton	BP ADDRESS: Renton, WA	PHONE NUMBER: —	FAX NO. —
LAB CONTACT: ED Fry	LABORATORY ADDRESS: Houston, TX	PHONE NUMBER: —	FAX NO. —
SAMPLED BY (Please Print Name): John Bicking	SAMPLED BY (Signature): John K. Bicking	SHIPMENT DATE: 9/18/96	SHIPMENT METHOD: Fed Ex

TAT: ☐ 24 Hours ☐ 48 Hours ☐ 1 Week ☒ Standard 2 Weeks

ANALYSIS REQUIRED

AIRBILL NUMBER: 940477287 3

SAMPLE DESCRIPTION	COLLECTION DATE / TIME	MATRIX SOIL/WATER	CONTAINERS NO.	CONTAINERS TYPE (VOL.)	PRESERVATIVE / LAB SAMPLE #	TPH G/BTEX	COMMENTS
STA# 11133 INF	9/17/96 1100	GW	3	VOA	HCL	✓	
PS	1105		3			✓	
A	1110		5			✓	
B	1115		3			✓	
EFF	1120		3			✓	

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
John K. Bicking	9/17/96	1500	Patricia Yelton	9/18/96	0800
Patricia Yelton	9/18/96	1515	SW West	9/19/96	1020

ADDITIONAL COMMENTS: 30C Ref, Int Std

CLV-16722
PKG/50

Distribution: White - Original (with Data)
Yellow - BP
Pink - Lab
Blue - Consultant Field Staff

SPL Houston Environmental Laboratory

Sample Login Checklist

Date:	Time:
9-19-96	1030

SPL Sample ID:
96-09-A41

			Yes	No
1	Chain-of-Custody (COC) form is present.		✓	
2	COC is properly completed.		✓	
3	If no, Non-Conformance Worksheet has been completed.			
4	Custody seals are present on the shipping container.		✓	
5	If yes, custody seals are intact.		✓	
6	All samples are tagged or labeled.		✓	
7	If no, Non-Conformance Worksheet has been completed.			
8	Sample containers arrived intact		✓	
9	Temperature of samples upon arrival:		3° C	
10	Method of sample delivery to SPL:	SPL Delivery		
		Client Delivery		
		FedEx Delivery (airbill #)	940 4778734	
		Other:		
11	Method of sample disposal:	SPL Disposal	✓	
		HOLD		
		Return to Client		

Name:	Date:
[signature]	9-19-96