Brown and Caldwell

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November 10, 1994

Mr. Brian Cobb
E-Z Serve Management Company
2550 N. Loop West, Suite 600
Houston, Texas 77292

11-1564-04/1

Subject: Third Quarter Groundwater Monitoring Report
Former E-Z Serve Station #100877, 525 West A Street, Hayward, California

Dear Mr. Cobb:

Brown and Caldwell conducted the third quarter groundwater monitoring event at E-Z Serve Management Company's Former Station #100877, 525 West A Street, Hayward, California on September 20, 1994. The work performed at the subject site included collecting depth-to-groundwater measurements from 11 groundwater monitoring wells, purging and sampling 10 wells, and submitting the groundwater samples to SPL Inc., an analytical laboratory located in Houston, Texas and certified by the State of California Department of Toxic Substance Control for analysis of hazardous materials. Field work was performed following the procedures outlined in Attachment A.

Summary of Findings

Depth-to-water measurements were collected using an oil-water interface probe. Free product was identified in Well MW-1A, a petroleum sheen was identified in Well MW-3, and petroleum odor was identified in Wells MW-4 and MW-9. A minimum of three well volumes was purged from each of the monitoring wells prior to sampling. Samples were collected from each of the monitoring wells, transferred to the appropriate sampling vials, and submitted to SPL Inc. within 48 hours of collection, under appropriate chain of custody. Samples were submitted to the laboratory for analysis of total petroleum hydrocarbons as gasoline, benzene, toluene, ethylbenzene, and xylene isomers, following Environmental Protection Agency Methods 8015 modified and 8020. Field work was performed following the procedures outlined in Attachment A.

Field data collected during the sampling event indicate groundwater elevations have decreased relative to last quarter. The groundwater appears to flow in all directions, towards the center of the site under gradients ranging from approximately 0.003 to 0.03 feet per foot. A summary of the depth-to-water measurements, calculated groundwater elevations, and analytical results are included in Table 1. A groundwater contour map, identifying the primary

groundwater flow direction on September 20, 1994 and the analytical results from each sample, is included as Figure 1. Analytical results, including a copy of the chain of custody form, are included in Attachment A.

If you have any question regarding the information presented herein, please contact one of us at your earliest convenience.

Sincerely

BROWN AND CALDWELL

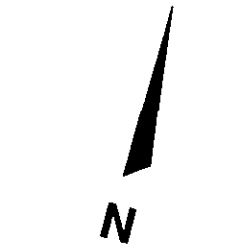
Todd Miller
Project Manager

Thomas K. Wheeler
California Registered Geologist No. 3925.

TM/TKW:

Attachments

e:\ezserve\100877\qtr-rpt.ltr



0 20 40

SCALE

1 inch = 40 feet

TPHg -	7,500
B -	2,200
T -	97
E -	400
X -	1,200

MW8
(76.18)

TPHg -	<100
B -	<1
T -	<1
E -	<1
X -	<1

A" Avenue

EXPLANATION

	LOCATION OF MONITORING WELLS INSTALLED BY OTHERS	TPHg
(87.00)	GROUNDWATER ELEVATION, SEPTEMBER 20, 1994	B
		T
	GROUNDWATER FLOW DIRECTION	E
	GROUNDWATER SURFACE ELEVATION CONTOUR	X

on Map

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (feet)	EPA Methods 8015 and 8020 Concentration (µg/L) TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	5-Feb-92	96.73	20.82		75.91	46,000	76,000	23,000	2,400	6,500
	11-Sep-92		20.08		76.65	48,000	9,000	1,200	1,800	4,600
	22-Dec-92		19.79		76.94	84,000	22,000	1,600	4,800	17,000
	3-Mar-93		16.23		80.50	54,000	16,000	1,600	1,900	4,300
	23-Jun-93		16.86		79.87	30,000	18,000	1,100	1,400	3,700
	30-Sep-93		18.04		78.69	33,000	10,000	440	940	1,700
	6-Feb-94		18.15		78.58	64,000	18,000	1,600	4,700	12,000
	20-Sep-94		20.59		76.14	10,000	3,100	75	440	870
MW-1A	23-Jun-93	97.59	17.80	0.21	80.00	Sample Not Analyzed				
	30-Sep-93			Not Recorded		Well Not Sampled				
	6-Feb-94		18.89		78.70	8,900	1,700	42	1,000	400
	20-Sep-94		21.50		76.09					
MW-2	5-Feb-92	98.06	22.35		75.71	67,000	13,000	4,700	820	1,300
	11-Sep-92		21.67		76.39	57,000	9,000	1,400	1,200	8,400
	22-Dec-92		21.39		76.67	31,000	9,900	350	2,000	4,100
	3-Mar-93		17.75		80.31	17,000	5,100	1,300	720	1,900
	23-Jun-93		18.42		79.64	60,000	23,000	1,500	4,500	17,000
	30-Sep-93		19.63		78.43	38,000	12,000	780	1,500	6,500
	6-Feb-94		19.61		78.45	34,000	8,900	450	2,000	5,500
	20-Sep-94		22.17		75.89	19,000	4,500	300	1,200	4,000
MW-3	5-Feb-92	97.66	21.85		75.81	5,900	1,100	<1	<1	<1
	11-Sep-92		21.13		76.53	9,400	1,200	180	550	1,100
	22-Dec-92		20.88		76.78	12,000	2,800	190	850	1,600
	3-Mar-93		17.29		80.37	11,000	2,200	360	570	900
	23-Jun-93		17.88		79.78	33,000	12,000	2,700	1,300	3,500
	30-Sep-93		19.18		78.48	4,300	1,100	160	690	670
	6-Feb-94		19.21		78.45	20,000	4,800	430	1,500	2,900
	20-Sep-94		21.64		76.02	8,200	2,200	130	670	930

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (feet)	EPA Methods 8015 and 8020 Concentration (µg/L)				
						TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW-4	5-Feb-92	97.10	21.31		75.79	16,000	2,700	410	<1	3,400
	11-Sep-92		20.62		76.48	43,000	7,600	1,600	1,400	4,100
	22-Dec-92		20.37		76.73	29,000	8,800	1,200	1,500	3,700
	3-Mar-93		16.78		80.32	17,000	5,000	1,500	680	1,700
	23-Jun-93		17.45		79.65	5,700	3,000	120	560	790
	30-Sep-93		18.64		78.46	21,000	7,000	2,100	970	2,600
	6-Feb-94		18.59		78.51	24,000	7,200	1,600	990	3,200
	20-Sep-94		21.13		75.97	7,200	2,000	360	380	1,000
MW-5	5-Feb-92	96.73	20.93		75.80	78,000	7,900	5,000	2,900	1,800
	11-Sep-92		20.27		76.46	49,000	4,700	400	1,400	4,100
	22-Dec-92		19.99		76.74	34,000	8,600	340	2,200	4,800
	3-Mar-93		16.49		80.24	22,000	7,500	640	1,300	3,400
	23-Jun-93		17.02		79.71	15,000	5,800	120	1,100	2,100
	30-Sep-93		18.25		78.48	25,000	7,600	410	1,000	4,400
	6-Feb-94		18.26		78.47	23,000	6,000	180	2,000	5,900
	20-Sep-94		20.77		75.96	8,400	1,600	54	650	1,400
duplicate	20-Sep-94					9,300	1,700	56	670	1,600
MW-6	5-Feb-92	97.09	21.29		75.80	51,000	5,400	3,500	3,600	10,000
	11-Sep-92		20.56		76.53	24,000	2,500	830	1,400	2,300
	22-Dec-92		20.31		76.78	23,000	5,100	630	2,000	3,100
	3-Mar-93		16.83		80.26	18,000	4,400	820	1,400	2,400
	23-Jun-93		17.30		79.79	18,000	4,600	850	2,700	3,400
	30-Sep-93		19.05	0.03	78.07	Sample Not Analyzed				
	6-Feb-94		18.55		78.54	20,000	4,600	690	2,100	2,500
	20-Sep-94		21.05		76.04	11,000	2,000	140	1,200	760
MW-7	23-Jun-93	97.44	17.87		79.57	29,000	4,200	71	4,400	5,600
	30-Sep-93		18.94		78.50	30,000	3,200	71	2,800	3,400
	6-Feb-94		19.11	0.06	78.39	Sample Not Analyzed				
	20-Sep-94		21.41		76.03	6,100	540	6	750	730

Table 1. Summary of Groundwater Elevation Data and Analytical Laboratory Results for Groundwater Samples Collected at Former E-Z Serve Station # 100877 525 West A Street, Hayward, California

Well I.D.	Date Sampled	Well Elevation (feet)	Depth to Water (feet)	Product Thickness (feet)	Groundwater Elevation (feet)	EPA Methods 8015 and 8020 Concentration (μg/L)				
						TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
MW-8	23-Jun-93	97.61	17.64		79.97	350	43	9	35	67
	30-Sep-93		18.85		78.76	2,700	190	340	170	720
	6-Feb-94		18.91		78.70	<100	<1	1	1	2
	20-Sep-94		21.43		76.18	<100	<1	<1	<1	<1
MW-9	23-Jun-93	95.41	15.94		79.47	45,000	14,000	1,200	2,800	12,000
	30-Sep-93		17.05		78.36	86,000	22,000	1,100	3,300	15,000
	6-Feb-94		17.07		78.34	43,000	10,000	460	2,100	7,500
	20-Sep-94		19.61		75.80	7,500	2,200	97	400	1,200
MW-10	23-Jun-93	97.11	17.39		79.72	35,000	980	640	3,500	12,000
	30-Sep-93		18.58		78.53	4,000	230	12	100	680
	6-Feb-94		18.61		78.50	2,000	69	12	220	120
	20-Sep-94		21.15		75.96	2,800	34	16	270	560
QA/QC Field blank	20-Sep-94				97.09	<100	<1	<1	<1	<1

ATTACHMENT A

GROUNDWATER SAMPLING PROCEEDURES
GROUNDWATER SAMPLE COLLECTION RECORDS
ANALYTICAL LABORATORY DATA SHEETS

EZ-SERVE
QUARTERLY GROUNDWATER MONITORING PROGRAM
SAMPLING AND ANALYSIS PLAN

The following sections describe the procedures and protocols to be followed during the quarterly groundwater monitoring events at all EZ-Serve sites.

Depth-to-Water Measurements

Prior to sampling the groundwater monitoring wells, the wells will be opened to the atmosphere for approximately one-quarter of one hour, to allow the static water level to adjust to the open barometric pressure. The depth-to-groundwater will then be measured, using an oil-water interface probe, and a check for free-product on top of the water column will be made. The interface probe will be lowered slowly until free product or water is encountered. At this point, the mark on the interface probe wire will be read to the nearest 0.01 feet at the permanent reference point on the top of the well casing. If free product is encountered the probe will be lowered until water is encountered. The difference between the two depths will correspond to the thickness of the free product. The total depth of the well will then be measured using the same probe. A bailer will then be lowered into the water to approximately one-half the bailer length. The bailer will be checked for the presence of a product sheen.

In the event that a dedicated bailer or purge tubing exists in the well the dedicated equipment will be removed prior to checking the depth-to-water, and temporarily stored in a clean, plastic garbage bag.

The depth-to-water and bottom of well measurements, and the presence or absence of free product, will be recorded on the field sampling form. In addition, comments regarding the condition of the well and/or containment box will also be noted on the field sampling sheet at this time. Wells observed to contain a product sheen or free product on top of the water column will not be purged or sampled.

Groundwater Monitoring Well Purging

The depth-to-water and bottom of well measurements will be used to calculate the volume of water contained in one well volume. The following values will be used to calculate the volume of water contained in the well casing and filter pack surrounding the well.

Well Diameter	Gallons/linear foot
2-inch	0.16
4-inch	0.65
8-inch filter pack	0.78
10-inch filter pack	1.21

The minimum purge volume will be three times the calculated well volume. Once the minimum purge volume has been calculated purging will begin. Purging will be conducted

using either a centrifugal pump connected to a dedicated Wattera pump or a pre-cleaned submersible pump. Temperature, pH, and specific conductance of the purge water will be monitored during the purging process at regular intervals. Purging will cease when the monitored parameters have stabilized (three consecutive readings not varying by more than 10-percent) **and** a minimum of three well volumes have been purged.

In the event a well dries out during purging, the well will be allowed to recover to 80-percent of it's original well volume, or for 24-hours, whichever is less, prior to collecting a groundwater sample.

Groundwater Monitoring Well Sampling

Once a well has been successfully purged a groundwater sample will be collected using a disposable polyethylene bailer connected to clean nylon or polyethylene cord. The bailer will be lowered slowly into the water to avoid agitation of the sample. A portion of the sample will be placed in a container and the monitoring parameters will be recorded. The remaining portion of the sample will be transferred from the bailer to the appropriate, laboratory supplied sampling bottles, using a bottom emptying device. Containers for volatile organic analyses will be filled completely, leaving a positive meniscus, so no airspace remains in the vial after sealing.

The sample bottles will be labeled with the well identification (i.e. MW-1, MW-2, etc), date and time of the sample collection, the field technicians initials, job number, analyses to be performed, and other relevant information. Samples will immediately be placed in an insulated cooler containing blue ice. The samples will be maintained at approximately 4°C until reaching the analytical laboratory.

Laboratory Analysis

Samples will be shipped, under appropriate chain-of-custody procedures, to SPL Laboratory in Houston, Texas, within 48-hours following collection. SPL Laboratory is certified by the State of California for performing the requested analyses. Samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg), diesel fuel, (TPHd), and benzene, toluene, ethylbenzene, and xylene isomers, following Environmental Protection Agency Methods 5030, 8015 modified, and 8020. Samples will be analyzed on a standard two week turn-around time.

QA/QC Procedures

Instrument calibration. Equipment used to monitor groundwater parameters will be calibrated prior to beginning purging at the site. Monitoring equipment will be calibrated following the manufactures instructions using laboratory grade standards.

Equipment Decontamination. Non-disposable and non-dedicated sampling equipment will be cleaned prior to use and between uses in each well. Downhole equipment will be

cleaned by washing the equipment using a non-phosphate soap solution and rinsing the equipment twice with distilled water.

Trip Blank. Trip blanks will be prepared by the analytical laboratory and will accompany the sample bottles throughout the sampling event. One trip blank will be prepared for each site. Trip blanks will be analyzed for volatile constituents (TPHg and BTEX) only.

Field Blank. Field blanks will be collected in the field by the field technician. A field blank will be prepared, prior to sampling, by filling three 40-ml. VOAs with distilled water. Field blanks will be analyzed for volatile constituents (TPHg and BTEX) only.

Brown and Caldwell
Consultants

FIELD DATA

JOB NAME: EZ-SERV · HAYWARD
CLIENT: EZ-SERV
LOCATION: GARDEN AVE. @ 'A' ST. - HAYWARD, CA
CONTACT: TODD MILLER
JOB NO: 1564-04
PHONE: 710-2278
DATE: 9-20-94
SECONDARY:
PROJ. MGR: TOM WHEELER
PHONE:
FIELD PERSONNEL: MCIVENNA
SAFETY OFFICER: MCIVENNA
H&S PLAN ONSITE? (YES) (NO)
WEATHER: CLEAR, WARMING
pH INSTRUMENT: YSI #3500
SER. NO:
pH 4.0 = 4.0
pH 7.0 = 7.0
pH 10.0 = 10.0
CONDUCTIVITY INSTRUMENT: YSI #3500
SER. NO:
INTERNAL CALIBRATION PERFORMED (YES) / (NO)
OTHER INSTRUMENTATION: OILS OIL/WATER INTERFACE PROBE

* NO WELLS HAVE FOOT VALVES ON TUBES *

~~0835~~
1) 0800 - ARRIVE BC-CONCORD, PICK UP TRAILER (REPAIRED FLAT), COOLER W/ BOTTLES & ICE
2) 0820 - LEAVE FOR SITE
3) 0925 - ARRIVE SITE, MEET W/ TOM WHEELER, TOUR SITE, MARK WELLS W/ ORANGE SPRAY PAINT. INVENTORY SITE IS OVERGROWN W/ THISTLES, SCATTERED W/ TRASH & DEBRIS. 16 - 55 GAL DRUMS ON SITE APPEAR TO CONTAIN SOIL, WATER - WILL PLACE # 2402 MASTER LOCK @ GATE
4) 1012 - BEGIN TAKING SWLs, TDs *SEE SEPERATE SHEET
5) 1145 - COMPLETE SWLs.
6) 1235 - BEGIN PURGING MW-8
7) 1300 - SAMPLE MW-8
8) 1308 - BEGIN PURGING MW-10
9) 1330 - SAMPLE MW-10
10) 1343 - BEGIN SAMPLING MW-7
11) 1417 - SAMPLE MW-7
12) 1445 - BEGIN PURGING MW-9
13) 1515 - SAMPLE MW-9
14) 1533 - BEGIN PURGING MW-1
15) 1605 - SAMPLE MW-1
16) 1610 - BEGIN PURGING MW-2
17) 1650 - SAMPLE MW-2
18) 1700 - BEGIN PURGING MW-4
19) 1732 - SAMPLE MW-4
20) 1745 - BEGIN PURGING MW-5
21) 1812 - SAMPLE MW-5, & DUPLICATE # MW-5D
22) 1820 - COLLECT FIELD BLANK # MW-6FB
23) 1823 - BEGIN PURGING MW-6
24) 1853 - SAMPLE MW-6
25) 1904 - BEGIN PURGING MW-3
26) 1935 - SAMPLE MW-3
27) 1945 - LEAVE SITE

JOB NUMBER		EZ-SERV HAYWARD, 1/4 TRLY MONITORING SUBJECT	9-20-94 DATE	SHEET NO. 1

Brown and Caldwell

BROWN & CALDWELL
WELL INFORMATION DATA

DATE: 9-20-94

JOB NAME: EZ-SERV

JOB #: 1564-04

B&C PERSONNEL: McIVENNA

LOCK TYPE: _____ EMCO-WHEATON

WEATHER: OVERCAST - 68°F

LID TYPE: _____

INSTRUMENT: ORS OIL/WATER INTERFACE

WELL ID	SWL	TD	DIA	TIME	COMMENTS
MW-8	21.43'	32.15'	2"	1012	PARK LOT OF SHOPPING CENTER ON 'A' ST. NO ODOR, BAILER IN WELL
MW-6	21.05'	32.10'	4"	1041	NO ODOR, BAILER IN WELL
MW-7	21.41'	30.06'	2"	1135	KLM
~~MW-8~~					
MW-9	19.61'	31.60'	2"	1018	FUEL ODOR 20' IN FRONT OF 553 'A' ST., BAILER IN WELL
MW-10	21.15'	31.80'	2"	1145	SOUTH SIDE OF 'A' ST. NO ODOR, BAILER IN WELL
MW-1A	21.50' 21.72'	28.40'	2"	1032	BAILER IN WELL, .22' FREE PRODUCT
MW-1	20.59'	32.10'	4"	1102	NO ODOR, BAILER IN WELL
MW-2	22.17'	32.30'	4"	1107	NO ODOR
MW-3	21.69' ~~DRY~~	32.10'	4"	1124	~~NO ODOR~~, BAILER IN WELL, 3/8" TUBING IN WELL ODOR, PRODUCT SHEEN COVER
MW-4	21.13'	32.11'	4"	1116	FUEL ODOR, BAILER DOWNHOLE IN WELL
MW-5	20.77'	32.48'	4"	1055	BAILER IN WELL, NO ODOR

BROWN AND CALDWELL

Well No. MW-6

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERVE, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN AVE & 'A' ST.

Samplers Name: McIVENJA

Weather Conditions: CLEAR, WARM - 75°F

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	=	21.05'	
b. Total Well Depth	=	32.10'	
c. Length of Water Column	=	11.05'	(b. - a.)
d. Casing Volume	=	7.18g	(c. x [gal/ft casing])
e. Length of filter pack	=	10'	
f. Filter pack volume	=	6.82g	(e. x [gal/ft filter pack])
g. **TOTAL WELL VOLUME**	=	14g	(d. + f.)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4" x 8"

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/ WATERRA

b. Required Purge Volume (@ 4 gallons per well volume) = 42 GAL

c. Field Testing; Equipment Used YSI # 3500 pH, S.C., TEMP.

d. Pump Rate _____

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% >60 min), Medium (90% 30-60 min), Fast (90% <10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1823					PUMP ON		
14	1831	22.0	6.50	1,259		GRAY-GREEN, FUEL ODOR, FINE SILTS, TURBID		32'
28	1839	22.0	6.51	1,271		CLEANER, CLEARER		"
42	1847	22.1	6.47	1,266		SAME		"
	1853	20.3	6.47	1,254		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40ml VOA Preservation HCL

Analysis TPH(G), 8015, BTEX

COMMENTS, REMARKS

* COLLECT FIELD BLANK # MW-6FB @ 1820

BROWN AND CALDWELL Well No. MW-5

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERVE, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN AVE & 'A' ST.

Samplers Name: M'CIVENNA

Weather Conditions: CLEAR, WARM-75°F

1. WATER LEVEL DATA: (from TOC)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4" x 8"

a. Depth to water (ft)	= 20.77'	
b. Total Well Depth	= 32.48'	
c. Length of Water Column	= 11.71'	(b. - a.)
d. Casing Volume	= 7.61 g	(c. x [gal/ft casing])
e. Length of filter pack	= 10'	
f. Filter pack volume	= 6.82g	(e. x [gal/ft filter pack])
g. **TOTAL WELL VOLUME**	= 14.43g	(d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/ WATERRA

b. Required Purge Volume (@ 14.43 gallons per well volume) = 43.29 GAL

c. Field Testing; Equipment Used YSI #3500 PH, S.C., TEMP.

d. Pump Rate 2 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% >60 min), Medium (90% 30-60 min), ~~Fast (90% < 10 min)~~

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1745					PUMP ON		
14.5	1752	20.9	6.41	1,289		SLIGHTLY CLOUDY, FINE SILTS, FUEL ODOR		32'
29	1759	20.9	6.41	1,240		CLEANER, CLEARER		↓
44	1806	20.2	6.47	1,239		SAME		
	1812	19.7	6.47	1,207		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40ml VOA Preservation HCL

Analysis TPH(G), 8015, BTE

COMMENTS, REMARKS

*COLLECT DUPLICATE # MW-5D

BROWN AND CALDWELL

Well No. MW-3

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERV, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN & 'A' ST., HAYWARD

Samplers Name: MCIVENNA

Weather Conditions: CLEAR, WARM - 75°F

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4" x 8"

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft) = 21.64'

b. Total Well Depth = 32.10'

c. Length of Water Column = 10.46' (b. - a.)

d. Casing Volume = 6.79 g (c. x [gal/ft casing])

e. Length of filter pack = 10'

f. Filter pack volume = 6.82 g (e. x [gal/ft filter pack])

g. **TOTAL WELL VOLUME** = 13.58 g (d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/ WATERRA

b. Required Purge Volume (@ 13.58 gallons per well volume) = 40.76 GAL

c. Field Testing; Equipment Used YSI #3500 pH, S.C., TEMP.

d. Pump Rate 1.8 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% > 60 min), Medium (90% 30-60 min), Fast (90% < 10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
0	1904					PUMP ON		
14	1912	21.4	6.61	1,177		GRAY-GREEN, SILTY FINE SANDS, FUEL ODOR		32'
28	1920	21.2	6.61	1,161		CLEANER, CLEARER		1
42	1928	21.4	6.63	1,181		SAME		1
	1935	19.4	6.58	1,153		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40 ml VOA Preservation HCL

Analysis TPH(G), 8015, BTEX

COMMENTS, REMARKS

BROWN AND CALDWELL

Well No. MW-4

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ SERVE, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN AVE. & 'A' STREET, HAYWARD

Samplers Name: McIVENNA

Weather Conditions: CLEAR, WARM - 78°F

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4" - 8"

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft) = 20.77'

b. Total Well Depth = 32.11'

c. Length of Water Column = 11.34' (b. - a.)

d. Casing Volume = 7.37g (c. x [gal/ft casing])

e. Length of filter pack = 10'

f. Filter pack volume = 6.82g (e. x [gal/ft filter pack])

g. **TOTAL WELL VOLUME** = 14.74g (d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/ WATERRA

b. Required Purge Volume (@ 14.74 gallons per well volume) = 44.22 GAL

c. Field Testing; Equipment Used YSI # 3500 pH, S.C., TEMP.

d. Pump Rate 1.8 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% >60 min), Medium (90% 30-60 min), Fast (90% <10 min)

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1700					PUMP ON		
15	1708	20.4	6.62	1,285		SOME SLIGHT GURGLING, FUEL ODOR, FINE SILTS		32'
30	1716	20.4	6.60	1,283		SAME		
45	1724	20.4	6.62	1,271		SAME		
	1732	18.6	6.64	1,253		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40ml VOA Preservation HCL

Analysis TPH(G), 8015, BTEX

COMMENTS, REMARKS

BROWN AND CALDWELL

Well No. MW-2

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERVE, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN AVE & 'A' ST., HAYWARD

Samplers Name: McIVENNA

Weather Conditions: CLEAR, WARM - 78°F

1. WATER LEVEL DATA: (from TOC)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4" x 8"

a. Depth to water (ft) = 22.17

b. Total Well Depth = 32.30'

c. Length of Water Column = 10.13' (b. - a.)

d. Casing Volume = 6.58 g (c. x [gal/ft casing])

e. Length of filter pack = 10'

f. Filter pack volume = 6.82 g (e. x [gal/ft filter pack])

g. **TOTAL WELL VOLUME** = 19.98 g (d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/WATERRA

b. Required Purge Volume (@ 19.98 gallons per well volume) = 59.94 GAL

c. Field Testing; Equipment Used YSI # 3500 pH, S.C., TEMP.

d. Pump Rate 2.5 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% > 60 min), Medium (90% 30-60 min), Fast (90% < 10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1610					PUMP ON		
20	1618	22.0	6.55	1,365		SOME CLOUDING, FINE SILTS FUEL ODOR		32'
40	1626	22.2	6.58	1,371		CLEANER, CLEARER, FUEL ODOR		↓
60	1634	21.1	6.59	1,346		SAME		
	1650	19.5	6.60	1,298		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40ml VOA Preservation HCL

Analysis TPH(G), BTEX, 8015

COMMENTS, REMARKS

01/31/94\E:\MEMOS\9011\9011-ZZ\GSCR2.WPS
HPLaserIIID

BROWN AND CALDWELL

Well No. MW-1

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERV, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN AVE. & 'A' ST., HAYWARD

Samplers Name: M°CIVENNA

Weather Conditions: CLEAR, WARM-77°F

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 4" x 8"

1. WATER LEVEL DATA: (from TOC)
   - a. Depth to water (ft) = 20.59'
   - b. Total Well Depth = 32.10'
   - c. Length of Water Column = 11.51' (b. - a.)
   - d. Casing Volume = 7.48 G (c. x [gal/ft casing])
   - e. Length of filter pack = 10'
   - f. Filter pack volume = 6.82 G (e. x [gal/ft filter pack])
   - g. **TOTAL WELL VOLUME** = 14.30 G (d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:
   - a. Purge Method TRASH W/ WATERRA
   - b. Required Purge Volume (@ 1.5 gallons per well volume) = 42.91 GAL
   - c. Field Testing; Equipment Used YSI # 3500 PH, SC, TEMP
   - d. Pump Rate 1.8 GPM
   - e. Method of GW Disposal 55 GAL DRUM
   - f. Recovery Rate: Slow (90% >60 min), Medium (90% 30-60 min), Fast (90% <10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1535					PUMP ON		
15	1540	21.5	6.37	1,267		CLEAR, CLEAR, SLIGHT FUEL ODOR		30'
30	1548	21.4	6.32	1,268		SAME		"
44	1555	21.2	6.35	1,270		SAME		"
	1605	19.8	6.40	1,231		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40ml VOA Preservation HCL
   Analysis TPH(G), BTEX, 8015

COMMENTS, REMARKS

01/31/94\E:\MEMOS\9011\9011-22\GSCR2.WP5
HPLaserIIID

BROWN AND CALDWELL

Well No. MW-9

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERV, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN & A' ST, HAYWARD

Samplers Name: MCIVENNA

Weather Conditions: WARM - 77°F

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	= 19.61'	
b. Total Well Depth	= 31.60'	
c. Length of Water Column	= 11.99'	(b. - a.)
d. Casing Volume	= 1.91g	(c. x [gal/ft casing])
e. Length of filter pack	= 10'	
f. Filter pack volume	= 5.46g	(e. x [gal/ft filter pack])
g. TOTAL WELL VOLUME	= 7.37g	(d. + f.)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2" x 6.5"

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/ WATERRA

b. Required Purge Volume (@ 7.37 gallons per well volume) = 22.13 GAL

c. Field Testing; Equipment Used YSI # 3500 PH, S.C., TEMP

d. Pump Rate 1.3 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% > 60 min), Medium (90% 30-60 min), Fast (90% < 10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1445					PUMP ON		
7.5	1452	23.4	6.47	1,371		GREEN-BROWN, FUEL ODOR, FINE SANDS, SILTS		
15	1458	22.7	6.43	1,317		CLEANER, CLEARER		
23	1505	22.7	6.45	1,312		SAME		
	1515	20.5	6.49	1,245		SAMPLED		

3. SAMPLE COLLECTION: Method DSP. BAILER Container 3-40ml VOA Preservation HCL

Analysis TPH(G), BTEX, 8015

COMMENTS, REMARKS

NEEDS LOCK

BROWN AND CALDWELL

Well No. MW-10

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EB-SERV, HAYWARD Job No.: 1564-04 Date: 9-20-94

Location: GARDEN AVE & 'A' ST., HAYWARD, CA

Samplers Name: McIVENNA

Weather Conditions: CLEAR, WARM - 77°F

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft)	=	21.15'
b. Total Well Depth	=	31.80'
c. Length of Water Column	=	10.65' (b. - a.)
d. Casing Volume	=	1.7g (c. x [gal/ft casing])
e. Length of filter pack	=	10'
f. Filter pack volume	=	5.46 (e. x [gal/ft filter pack])
g. **TOTAL WELL VOLUME**	=	7.16 (d. + f.)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2" x 6.5"

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH W/ WATERRA

b. Required Purge Volume (@ 7.16 gallons per well volume) = 21.48 GAL

c. Field Testing; Equipment Used YSI #3500 pH, S.C., TEMP.

d. Pump Rate 1.45 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% >60 min), ~~Medium (90% 30-60 min)~~, Fast (90% < 10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1308					PUMP ON		
7.25	1313	22.0	6.54	1,009		GRAY-GREEN, FUEL ODOR, FINE SILTS, SANDS		30'
14.5	1318	22.1	6.54	996		SOME CLEARING		
23	1323	22.2	6.56	993		SAME, FEW SANDS, FINE SILTS		
	1330	20.7	6.57	958		SAMPLED		

3. SAMPLE COLLECTION: Method DISP BAILER Container 3-40ml VOA Preservation HCL

Analysis TPH, 8015, BTEX

COMMENTS, REMARKS

NEEDS LOCK

BROWN AND CALDWELL

Well No. MW-7

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERV, HAYWARD Job No.: 154-04 Date: 9-20-94

Location: GARDEN AVE & 'A' ST., HAYWARD

Samplers Name: M°IVENNA

Weather Conditions: CLEAR, WARM - 77°F

1. WATER LEVEL DATA: (from TOC)

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2" x 6.5"

a. Depth to water (ft) = 21.15'

b. Total Well Depth = 31.80'

c. Length of Water Column = 10.65' (b. - a.)

d. Casing Volume = 1.7g (c. x [gal/ft casing])

e. Length of filter pack = 10'

f. Filter pack volume = 5.46g (e. x [gal/ft filter pack])

g. **TOTAL WELL VOLUME** = 7.16g (d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH w/ WATERRA

b. Required Purge Volume (@ 7.16 gallons per well volume) = 21.48 GAL

c. Field Testing; Equipment Used YSI #3500 pH, SC., TEMP.

d. Pump Rate 1.07 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% >60 min), Medium (90% 30-60 min), Fast (90% <10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1343					→ PUMP ON		
7.25	1348	24.3	6.51	1,328		GRAY-GREEN, SANDY, SILTY FUEL ODOR, TURBID		30'
14.5	1353	26.9	6.49	1,382		SAME		↓
22.5	1405	26.9	6.46	1,400		SOME CLEARING		↓
	1417	20.4	6.53	1,324		SAMPLED		

3. SAMPLE COLLECTION: Method DISP. BAILER Container 3-40ml VOA Preservation HCl

Analysis TPH(G), BTEX, 8015

COMMENTS, REMARKS

NEEDS LOCK

BROWN AND CALDWELL Well No. MW-8

GROUNDWATER SAMPLE COLLECTION RECORD

Project Name: EZ-SERV, HAYWARD Job No.: 15CA-04 Date: 9-20-94

Location: GARDEN AVE & 'A' ST, HAYWARD, CA

Samplers Name: McIVENNA

Weather Conditions: CLEAR, WARM - 75°F

TOC Elevation (from LS) _____

Water Table Elev. _____

Tape Corr. (TC) _____

Well Dia. 2" x 6.5"

1. WATER LEVEL DATA: (from TOC)

a. Depth to water (ft) = 21.43'

b. Total Well Depth = 32.15'

c. Length of Water Column = 10.72' (b. - a.)

d. Casing Volume = 1.71 g (c. x [gal/ft casing])

e. Length of filter pack = 10'

f. Filter pack volume = 5.46 g (e. x [gal/ft filter pack])

g. **TOTAL WELL VOLUME** = 7.17 g (d. + f.)

2-in. casing	=0.16 gal/ft
4-in. casing	=0.65 gal/ft
6-in. casing	=1.47 gal/ft
6.5-in. casing	=1.7 gal/ft
8-in. casing	=2.60 gal/ft
10-in. casing	= 4.1 gal/ft
12-in. casing	= 5.0 gal/ft

2. WELL PURGING DATA:

a. Purge Method TRASH PUMP W/ WATERRA

b. Required Purge Volume (@ 7.17 gallons per well volume) = 21.51 GAL

c. Field Testing; Equipment Used YSI # 3500 pH, S.C., TEMP.

d. Pump Rate 1.95 GPM

e. Method of GW Disposal 55 GAL DRUM

f. Recovery Rate: Slow (90% > 60 min), Medium (90% 30-60 min), Fast (90% < 10 min) _____

Volume Removed (gal)	Time	T°c	pH	Spec. Conductivity	Turbidity (NTU's)	Color/ Description	SWL	Pump Placement
	1235					PUMP ON		
7.25	1240	23.0	6.50	1,306		FINE SANDS, SILTS, TURBID		30'
14.5	1245	21.8	6.49	1,274		CLEANER, CLEARER, FINE SILTS, SANDS		
23	1251	21.8	6.51	1,269		SAME		
	1300	20.7	6.53	1,265		SAMPLED		

3. SAMPLE COLLECTION: Method ~~TPH, 8015, BTEX~~ DISP. BAILER Container 3-40 ml VOA Preservation HCL

Analysis TPH, 8015, BTEX

COMMENTS, REMARKS

* NEEDS 2" EXPANDING CAP w/ LOCK

CHAIN OF CUSTODY RECORD

Client name: BSC - P.H.	Project or PO#: 1564-04
Address: 3480 BUSKIRK AVE.	Phone #: (510) 937-9010
City, State, Zip: PLEASANT HILL, CA. 94523	Report attention: TODD MILLER

Analyses required: TPH(g) 5030/8015 BTEX 8020; Hazardous sample Special handling required

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sampled by: KEVIN McINENNA / Sample description	Number of containers	TPH(g) 5030/8015 BTEX 8020	Remarks
1	9/20/94	1300	GW	MW-8	3	3	
2		1330		MW-10	3	3	
3		1417		MW-7	3	3	
4		1515		MW-9	3	3	
5		~~1455~~ 1505		MW-1	3	3	
6		1650		MW-2	3	3	
7		1732		MW-4	3	3	
8		1812		MW-5	3	3	
9		1813		MW-5D	3	3	
10		1820	AQ	MW-6FB	3	3	
11		1853	GW	MW-6	3	3	
12		1935		MW-3	3	3	

	Signature	Print Name	Company	Date	Time
Relinquished by		KEVIN McINENNA	BROWN & CALDWELL-P.H.	9/21/94	1500
Received by					
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory					

B C ANALYTICAL

☐ 1255 Powell Street, Emeryville, CA 94608 (510) 428-2300
☐ 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
☐ 1200 Gene Autry Way, Anaheim, CA 92805 (714) 978-0113

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

Disposal arrangements: _____

*KEY WW—Wastewater SU—Surface Water SO—Soil SL—Sludge PE—Petroleum OT—Other NA—Nonaqueous GW—Groundwater AQ—Aqu

SPL, INC.

REPORT APPROVAL SHEET

WORK ORDER NUMBER: 94-09-861

Approved for release by:

Date: 10/03/94

Brent Barron, Project Manager

Date: 10/03/94

S. Sample, Laboratory Director

****SUMMARY REPORT*****

09/30/94

Company: EZ Serve Inc.
Site: Hayward,CA
Project No: 1574-04
Project: EZSERV # 100877

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-G PQL	TPH-D	LEAD	MTBE
9409861-01 WATER	MW-8 09/20/94 13:00:00	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 0.1mg/L			
9409861-02 WATER	MW-10 09/20/94 13:30:00	34 1µg/L	16 1µg/L	270 1µg/L	560 1µg/L	2.8 0.1mg/L			
9409861-03 WATER	MW-7 09/20/94 14:17:00	540 5µg/L	6 5µg/L	750 5µg/L	730 5µg/L	6.1 0.5mg/L			
9409861-04 WATER	MW-9 09/20/94 15:15:00	2200 5µg/L	97 5µg/L	400 5µg/L	1200 5µg/L	7.5 0.5mg/L			
9409861-05 WATER	MW-1 09/20/94 16:05:00	3100 10µg/L	75 10µg/L	440 10µg/L	870 10µg/L	10 1.0mg/L			
9409861-06 WATER	MW-2 09/20/94 16:50:00	4500 25µg/L	300 25µg/L	1200 25µg/L	4000 25µg/L	19 2.5mg/L			
9409861-07 WATER	MW-4 09/20/94 17:32:00	2000 5µg/L	360 5µg/L	380 5µg/L	1000 5µg/L	7.2 0.5mg/L			
9409861-08 WATER	MW-5 09/20/94 18:12:00	1600 5µg/L	54 5µg/L	650 5µg/L	1400 5µg/L	8.4 0.5mg/L			
9409861-09 WATER	MW-5D 09/20/94 18:13:00	1700 5µg/L	56 5µg/L	670 5µg/L	1600 5µg/L	9.3 0.5mg/L			
9409861-10 WATER	MW-6FB 09/20/94 18:20:00	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 1µg/L	ND 0.1mg/L			
9409861-11 WATER	MW-6 09/20/94 18:53:00	2000 10µg/L	140 10µg/L	1200 10µg/L	760 10µg/L	11 1.0mg/L			

BTEX - METHOD 8020***
TPH-G - Modified 8015 - Gasoline

****SUMMARY REPORT*****

09/30/94

Company: EZ Serve Inc.
Site: Hayward,CA
Project No: 1574-04
Project: EZSERV # 100877

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE PQL	TOLUENE PQL	ETHYLBENZ. PQL	XYLENE PQL	TPH-G PQL	TPH-D	LEAD	MTBE
9409861-12 WATER	MW-3 09/20/94 19:35:00	2200 10µg/L	130 10µg/L	670 10µg/L	930 10µg/L	8.2 1.0mg/L			

SPL®

Certificate of Analysis No. 9409861-01

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-8

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 13:00:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	106		
4-Bromofluorobenzene	78		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/28/94			
Petroleum Hydrocarbons - Gasoline	ND	0.1 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	64		
4-Bromofluorobenzene	72		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/28/94			

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, 17th 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

SPL, Inc., - Project Manager

SPL®

Certificate of Analysis No. 9409861-02

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-10

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 13:30:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	34	1 P	µg/L
TOLUENE	16	1 P	µg/L
ETHYLBENZENE	270	1 P	µg/L
TOTAL XYLENE	560	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	880		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	122		
4-Bromofluorobenzene	152 «		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/28/94			
Petroleum Hydrocarbons - Gasoline	2.8	0.1 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	125		
4-Bromofluorobenzene	241 «		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/28/94			

(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, 17th 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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SPL, Inc., - Project Manager

Certificate of Analysis No. 9409861-03

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-7

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 14:17:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	540	5 P	µg/L
TOLUENE	6	5 P	µg/L
ETHYLBENZENE	750	5 P	µg/L
TOTAL XYLENE	730	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	2026		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	119		
4-Bromofluorobenzene	115		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/28/94			
Petroleum Hydrocarbons - Gasoline	6.1	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	85		
4-Bromofluorobenzene	149 «		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/28/94			

(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, 17th 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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SPL, Inc., - Project Manager

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Certificate of Analysis No. 9409861-04

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-9

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 15:15:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2200	5 P	µg/L
TOLUENE	97	5 P	µg/L
ETHYLBENZENE	400	5 P	µg/L
TOTAL XYLENE	1200	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3897		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	125		
4-Bromofluorobenzene	100		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/28/94			
Petroleum Hydrocarbons - Gasoline	7.5	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	90		
4-Bromofluorobenzene	120		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/28/94			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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SPL, Inc., Project Manager

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Certificate of Analysis No. 9409861-05

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-1

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 16:05:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	3100	10 P	µg/L
TOLUENE	75	10 P	µg/L
ETHYLBENZENE	440	10 P	µg/L
TOTAL XYLENE	870	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	4485		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	120		
4-Bromofluorobenzene	69		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	10	1.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	93		
4-Bromofluorobenzene	82		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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SPL, Inc., - Project Manager

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Certificate of Analysis No. 9409861-06

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-2

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 16:50:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	4500	25 P	µg/L
TOLUENE	300	25 P	µg/L
ETHYLBENZENE	1200	25 P	µg/L
TOTAL XYLENE	4000	25 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	10000		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	115		
4-Bromofluorobenzene	98		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	19	2.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	76		
4-Bromofluorobenzene	105		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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SPL California License # 1903

SPL, Inc., - Project Manager

Certificate of Analysis No. 9409861-07

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-4

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 17:32:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2000	5 P	µg/L
TOLUENE	360	5 P	µg/L
ETHYLBENZENE	380	5 P	µg/L
TOTAL XYLENE	1000	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3740		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	123		
4-Bromofluorobenzene	77		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	7.2	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	87		
4-Bromofluorobenzene	92		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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SPL, Inc., - Project Manager

Certificate of Analysis No. 9409861-08

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-5

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 18:12:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1600	5 P	µg/L
TOLUENE	54	5 P	µg/L
ETHYLBENZENE	650	5 P	µg/L
TOTAL XYLENE	1400	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3704		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	124		
4-Bromofluorobenzene	80		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	8.4	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	108		
4-Bromofluorobenzene	111		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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SPL, Inc., Project Manager

Certificate of Analysis No. 9409861-09

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-5D

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 18:13:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	1700	5 P	µg/L
TOLUENE	56	5 P	µg/L
ETHYLBENZENE	670	5 P	µg/L
TOTAL XYLENE	1600	5 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	4026		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	125		
4-Bromofluorobenzene	108		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	9.3	0.5 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	105		
4-Bromofluorobenzene	134 «		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(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, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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Certificate of Analysis No. 9409861-10

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-6FB

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 18:20:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	ND	1 P	µg/L
TOLUENE	ND	1 P	µg/L
ETHYLBENZENE	ND	1 P	µg/L
TOTAL XYLENE	ND	1 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	ND		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	106		
4-Bromofluorobenzene	76		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/28/94			
Petroleum Hydrocarbons - Gasoline	ND	0.1 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	66		
4-Bromofluorobenzene	73		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/28/94			

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, 17th 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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SPL, Inc., - Project Manager

Certificate of Analysis No. 9409861-11

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-6

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 18:53:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2000	10 P	µg/L
TOLUENE	140	10 P	µg/L
ETHYLBENZENE	1200	10 P	µg/L
TOTAL XYLENE	760	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	4100		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	126		
4-Bromofluorobenzene	113		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	11	1.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	101		
4-Bromofluorobenzene	137 «		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(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, 17th 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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SPL, Inc., - Project Manager

Certificate of Analysis No. 9409861-12

EZ Serve Inc.
3550 North Loop West, #600
Houston, TX 77292
ATTN: Brian Cobb

DATE: 09/30/94

PROJECT: EZSERV # 100877
SITE: Hayward,CA
SAMPLED BY: Brown & Cadwell
SAMPLE ID: MW-3

PROJECT NO: 1574-04
MATRIX: WATER
DATE SAMPLED: 09/20/94 19:35:00
DATE RECEIVED: 09/22/94

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
BENZENE	2200	10 P	µg/L
TOLUENE	130	10 P	µg/L
ETHYLBENZENE	670	10 P	µg/L
TOTAL XYLENE	930	10 P	µg/L
TOTAL VOLATILE AROMATIC HYDROCARBONS	3930		µg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	120		
4-Bromofluorobenzene	78		
METHOD 8020***			
Analyzed by: JZL			
Date: 09/29/94			
Petroleum Hydrocarbons - Gasoline	8.2	1.0 P	mg/L
Surrogate	**% Recovery**		
1,4-Difluorobenzene	86		
4-Bromofluorobenzene	87		
Modified 8015 - Gasoline			
Analyzed by: JZL			
Date: 09/29/94			

(P) - Practical Quantitation Limit

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 17th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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SPL, Inc., - Project Manager

QUALITY CONTROL DOCUMENTATION

Matrix: Aqueous
Units: µg/L

Batch Id: HP_R940928151900

LABORATORY CONTROL SAMPLE

SPIKE COMPOUNDS	Method Blank Result <2>	Spike Added <3>	Blank Spike Result <1>	Blank Spike Recovery %	QC Limits(**) (Mandatory) % Recovery Range
Benzene	ND	50	50	100	54 - 126
Toluene	ND	50	49	98.0	61 - 125
EthylBenzene	ND	50	46	92.0	57 - 129
O Xylene	ND	50	45	90.0	32 - 160
M & P Xylene	ND	100	100	100	32 - 160

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
Benzene	35	20	53	90.0	56	105	15.4	19	61 - 131
Toluene	3	20	21	90.0	23	100	10.5	18	57 - 127
EthylBenzene	23	20	41	90.0	43	100	10.5	18	55 - 131
O Xylene	2	20	20	90.0	21	95.0	5.41	20	40 - 130
M & P Xylene	18	40	56	95.0	59	102	7.11	16	43 - 152

Analyst: JZL
Sequence Date: 09/28/94
SPL ID of sample spiked: 9409858-10A
Sample File ID: R___554.TX0
Method Blank File ID:
Blank Spike File ID: R___545.TX0
Matrix Spike File ID: R___546.TX0
Matrix Spike Duplicate File ID: R___547.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
(***) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9409861-12A 9409861-07A 9409861-08A 9409941-04A
9409861-09A 9409862-08A 9409862-07A 9409862-06A
9409862-04A 9409862-03A 9409861-06A 9409861-11A
9409861-04A 9409861-03A 9409861-02A 9409861-10A
9409861-01A 9409858-09A 9409858-08A 9409858-10A

Idelis Williams, QC Officer

** SPL BATCH QUALITY CONTROL REPORT ** PAGE 1
METHOD 8020

Matrix: Aqueous Batch Id: HP_R940929104910
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
Benzene	ND	50	38	76.0	54 - 126
Toluene	ND	50	36	72.0	61 - 125
EthylBenzene	ND	50	33	66.0	57 - 129
O Xylene	ND	50	31	62.0	32 - 160
M & P Xylene	ND	100	75	75.0	32 - 160

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
Benzene	7	20	34	135 *	36	145 *	7.14	19	61 - 131
Toluene	23	20	58	175 *	68	225 *	25.0 *	18	57 - 127
EthylBenzene	4	20	27	115	28	120	4.26	18	55 - 131
O Xylene	7	20	30	115	34	135 *	16.0	20	40 - 130
M & P Xylene	19	40	74	138	84	162 *	16.0	16	43 - 152

Analyst: JZL
Sequence Date: 09/29/94
SPL ID of sample spiked: 9409879-01A
Sample File ID: R___592.TX0
Method Blank File ID:
Blank Spike File ID: R___581.TX0
Matrix Spike File ID: R___583.TX0
Matrix Spike Duplicate File ID: R___584.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
(***) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9409941-03A 9409941-07A 9409879-02A 9409879-04A
9409879-08A 9409879-07A 9409879-06A 9409879-05A
9409941-04A 9409941-01A 9409861-05A 9409862-05A
9409862-01A 9409941-05A 9409862-02A 9409941-02A
9409879-01A 9409862-09A 9409862-10A

Idelis Williams, QC Officer

Modified 8015 - Gasoline

Matrix: Aqueous
Units: mg/L

Batch Id: HP_R940928184910

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	ND	5.0	6.0	120	56 - 139

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	ND	5.0	2.2	44.0	2.1	42.0	4.65	18	40 - 158

Analyst: JZL
Sequence Date: 09/28/94
SPL ID of sample spiked: 9409858-08A
Sample File ID: RR__555.TXO
Method Blank File ID:
Blank Spike File ID: RR__548.TXO
Matrix Spike File ID: RR__551.TXO
Matrix Spike Duplicate File ID: RR__552.TXO

* = 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
(***) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9409861-12A	9409861-07A	9409861-08A	9409941-04A
9409861-09A	9409862-08A	9409862-07A	9409862-06A
9409862-04A	9409862-03A	9409861-06A	9409861-11A
9409861-04A	9409861-03A	9409861-02A	9409861-10A
9409861-01A	9409858-09A	9409858-08A	9409858-10A

Idelis Williams, QC Officer

Modified 8015 - Gasoline

Matrix: Aqueous
Units: mg/L

Batch Id: HP_R940929123900

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	ND	5.0	5.3	106	56 - 139

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	ND	5.0	2.0	40.0	2.0	40.0	0	18	40 - 158

Analyst: JZL
Sequence Date: 09/29/94
SPL ID of sample spiked: 9409862-09A
Sample File ID: RR__591.TXO
Method Blank File ID:
Blank Spike File ID: RR__585.TXO
Matrix Spike File ID: RR__587.TXO
Matrix Spike Duplicate File ID: RR__588.TXO

* = 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
(***) = Source: SPL-Houston Historical Data

SAMPLES IN BATCH(SPL ID):

9409941-03A	9409941-06A	9409941-07A	9409879-02A
9409879-04A	9409879-08A	9409879-07A	9409879-06A
9409879-05A	9409941-01A	9409861-05A	9409862-05A
9409862-01A	9409941-05A	9409862-02A	9409941-02A
9409879-01A	9409862-09A	9409862-10A	

Idelis Williams, QC Officer

CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

CHAIN OF CUSTODY RECORD

9409868

BCA Log Number _____

Client name: BC-P.H.	Project or PO#: 1564-04
Address: 3480 BUSKIRK AVE.	Phone #: (510) 937-9010
City, State, Zip: PLEASANT HILL, CA. 94523	Report attention: TODD MILLER

Sampled by: KEVIN McIVENNA

Lab Sample number	Date sampled	Time sampled	Type* See key below	Sample description	Number of containers	Analyses required: TPH(g) 5030/8015 BTEX 8020	Hazardous sample Special handling required	Remarks
1	9/20/94	1300	GW	MW-8	3	3		
2		1330		MW-10	3	3		
3		1417		MW-7	3	3		
4		1515		MW-9	3	3		
5		~~1455~~ 1505		MW-1	3	3		
6		1650		MW-2	3	3		
7		1732		MW-4	3	3		
8		1812		MW-5	3	3		
9		1813		MW-5D	3	3		
10		1820	AQ	MW-6FB	3	3		
11		1853	GW	MW-6	3	3		
12		1935		MW-3	3	3		

	Signature	Print Name	Company	Date	Time
Relinquished by		KEVIN McIVENNA	BROWN & CALDWELL-P.H.	9/21/94	1500
Received by					
Relinquished by					
Received by					
Relinquished by					
Received by Laboratory			BC LIMS	9/22/94	10:30

B C ANALYTICAL

- ☐ 1255 Powell Street, Emeryville, CA 94608 (510) 428-2300
- ☐ 801 Western Avenue, Glendale, CA 91201 (818) 247-5737
- ☐ 1200 Gene Autry Way, Anaheim, CA 92805 (714) 978-0113

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

Disposal arrangements: _____

*KEY: WW—Wastewater SU—Surface Water SO—Soil SL—Sludge PE—Petroleum OT—Other NA—Nonaqueous GW—Groundwater AQ—Aqueous

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AIRBILL
PACKAGE
TRACKING NUMBER

2784024585

RECIPIENT'S COPY

1 From (Your Name) Please Print: KEVIN MCINEWNA
Your Phone Number (Very Important): (510) [illegible]-9016
Company: [illegible]
Department/Floor No.:
Street Address: 1065 SHARY CIRCLE
City: ~~FLEA~~ CONCORD State: CA ZIP Required: 94518
YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)
-20s

2 To (Recipient's Name) Please Print: SAMPLE RECEIVER
Recipient's Phone Number (Very Important):
Company: SOUTHERN PETROLEUM LAB
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 3880 INTERCHANGE
City: HOUSTON State: TX ZIP Required: 77004

3 PAYMENT 1 ☐ Bill Sender 2 ☐ Bill Recipient's FedEx Acct No 3 ☒ Bill 3rd Party FedEx Acct No. 4 ☐ Bill Credit Card 5 ☐ Cash/Check

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here
Street Address: 4702 Travis
City: Houston, State: TX ZIP Required: 77002

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)
11 ☐ OTHER PACKAGING
16 ☐ FEDEX LETTER*
12 ☐ FEDEX PAK*
13 ☐ FEDEX BOX
14 ☐ FEDEX TUBE

Standard Overnight (Delivery by next business afternoon. No Saturday delivery†)
51 ☒ OTHER PACKAGING
56 ☐ FEDEX LETTER*
52 ☐ FEDEX PAK*
53 ☐ FEDEX BOX
54 ☐ FEDEX TUBE

Economy Two-Day (Delivery by second business day †)
30 ☐ ECONOMY**
*Economy Letter Rate not available. Minimum charge. One pound Economy rate

Government Overnight (Restricted for authorized users only)
46 ☐ GOVT LETTER
41 ☐ GOVT PACKAGE

Freight Service (for packages over 150 lbs.)
70 ☐ OVERNIGHT FREIGHT** (Confirmed reservation required)
80 ☐ TWO-DAY FREIGHT**
†Delivery commitment may be later in some areas.
**Declared Value Limit $500
**Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 ☒ HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 ☐ DELIVER WEEKDAY*

Saturday Service
31 ☐ HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 ☐ DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 ☐ SATURDAY PICK-UP (Extra charge)

Special Handling
4 ☐ DANGEROUS GOODS (Extra charge)
6 ☐ DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845 ____ x ____ kg, 904.it
DESCRIPTION
12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

6

	PACKAGES	WEIGHT In Pounds Only	YOUR DECLARED VALUE (See right)
	1	11	
Total	1	11	Total

DIM SHIPMENT (Chargeable Weight) ☐ ____ lbs
L x W x H

Received At
1 ☐ Regular Stop 3 ☐ Drop Box
2 ☐ On-Call Stop 4 ☐ B S C
5 ☐ Station

7 Release Signature:

Emp. No. Date
☐ Cash Received
☐ Return Shipment
☐ Third Party ☐ Chg. To Def. ☐ Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received FedEx Employee Number

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 4/94
PART #144412 TXEM 8/94
FORMAT #160
160

SPL HOUSTON ENVIRONMENTAL LABORATORY

SAMPLE LOGIN CHECKLIST

DATE: 9/22/94 TIME: _____ CLIENT NO. _____
LOT NO. _____ CONTRACT NO. _____

CLIENT SAMPLE NOS. _____

SPL SAMPLE NOS.: 9409861

	YES	NO
1. Is a Chain-of-Custody form present?	✓	
2. Is the COC properly completed?	✓	
If no, describe what is incomplete:		
If no, has the client been contacted about it? (Attach subsequent documentation from client about the situation)		
3. Is airbill/packing list/bill of lading with shipment? If yes, ID#: FDEX: 2784024585	✓	
4. Is a USEPA Traffic Report present?		✓
5. Is a USEPA SAS Packing List present?		✓
6. Are custody seals present on the package?	✓	
If yes, were they intact upon receipt?	✓	
7. Are all samples tagged or labeled?	✓	
Do the sample tags/labels match the COC?	✓	
If no, has the client been contacted about it? (Attach subsequent documentation from client about the situation)		
8. Do all shipping documents agree?	✓	
If no, describe what is in nonconformity:		

9. Condition/temperature of shipping container: 3C INTACT
10. Condition/temperature of sample bottles: 3C GOOD
11. Sample Disposal?: SPL disposal ✓ Return to client ____

NOTES (reference item number if applicable): _____

ATTEST: P Hinson DATE: 9/22/94
DELIVERED FOR RESOLUTION: REC'D _____ DATE: _____
RESOLVED: _____ DATE: _____