



GeoStrategies Inc.

QUARTERLY REPORT

Shell Service Station
3790 Hopyard Road
Pleasanton, California
WIC# 204-6138-0501

763201-15

November 6, 1992



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

(510) 352-4800

November 6, 1992

Shell Oil Company
P.O. Box 5278
Concord, California 94520

Attn: Mr. Dan Kirk

Re: QUARTERLY REPORT
Shell Service Station
3790 Hopyard Road
Pleasanton, California
WIC #204-6138-0501

Mr. Kirk:

This Quarterly Report has been prepared by GeoStrategies Inc. (GSI) and presents the results of the 1992 third quarter sampling for the above referenced site (Plate 1). Sampling data were furnished by the Shell Oil Company sampling contractor.

There are currently twelve monitoring wells at the site; Wells S-2 through S-10, SR-1, SR-2 and SR-3 (Plate 2). These wells were installed between 1986 and 1989 by EMCON Associates, Woodward-Clyde Consultants, Pacific Environmental Group and GSI. Well S-1 was destroyed in 1988.

CURRENT QUARTER SAMPLING RESULTS

Depth to water-level measurements were obtained in each monitoring well on September 17, 1992. Static ground-water levels were measured from the surveyed top of the well box and recorded to the nearest ± 0.01 foot. Water-level elevations, referenced to Mean Sea Level (MSL) datum and the stabilized values of measured physical parameters are presented in the EMCON Monitoring Report (Appendix A). Water-level data were used to construct a quarterly potentiometric map (Plate 2). Shallow ground-water flow is to the south at an approximate hydraulic gradient of 0.01.

Each well was checked for the presence of floating product. Floating product was not observed in the wells this quarter.

GeoStrategies Inc.

Shell Oil Company
November 6, 1992
Page 2

Ground-water samples were collected on September 17, 1992. Samples were analyzed for Total Petroleum Hydrocarbons calculated as Gasoline (TPH-Gasoline), according to EPA Method 8015 (Modified) and for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) according to EPA Method 8020. The ground-water samples were analyzed by Anamatrix Inc., a California State-certified laboratory located in San Jose, California. The analytical laboratory report and Chain-of-Custody form are presented in Appendix A. These data are summarized and included with the historical chemical analytical data presented in Appendix A. A chemical isoconcentration map for benzene is presented on Plate 3.

If you have any questions, please call.

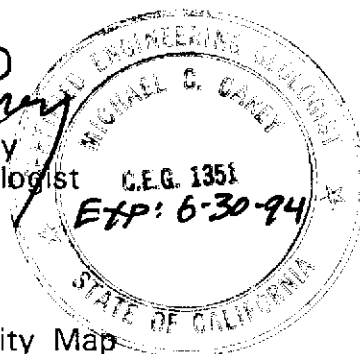
GeoStrategies Inc. by,

Ellen C. Fostersmith

Ellen C. Fostersmith
Geologist

Michael Carey

Michael C. Carey
Engineering Geologist
C.E.G. 1351



ECF/MCC/rmt

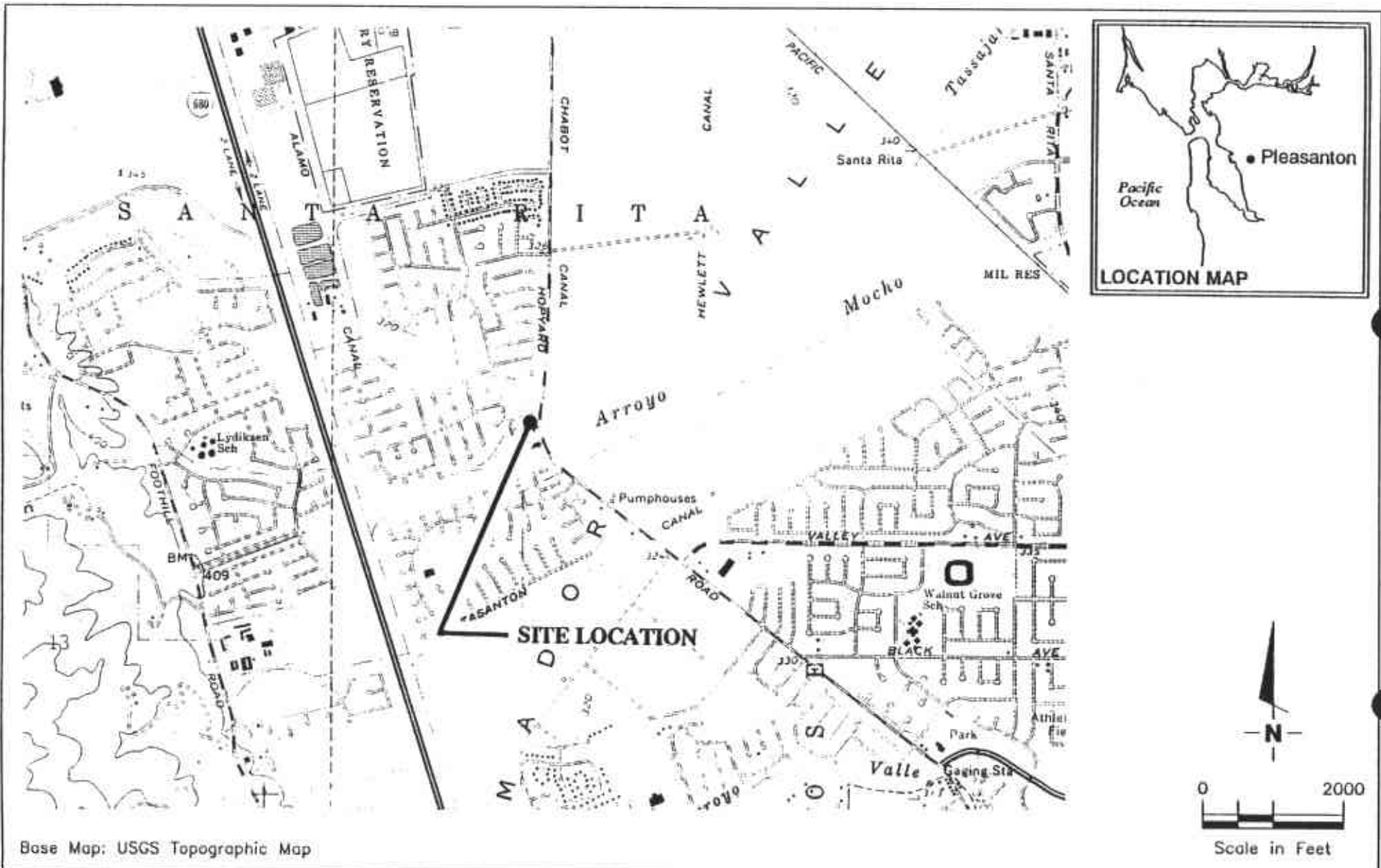
- Plate 1. Vicinity Map
- Plate 2. Site Plan/Potentiometric Map
- Plate 3. Benzene Isoconcentration Map

Appendix A: EMCON Monitoring Report and Chain-of-Custody

QC Review: *gof*

GeoStrategies Inc.

ILLUSTRATIONS



Base Map: USGS Topographic Map



GeoStrategies Inc.

VICINITY MAP
 Shell Service Station
 3790 Hopyard Road
 Pleasanton, California

PLATE

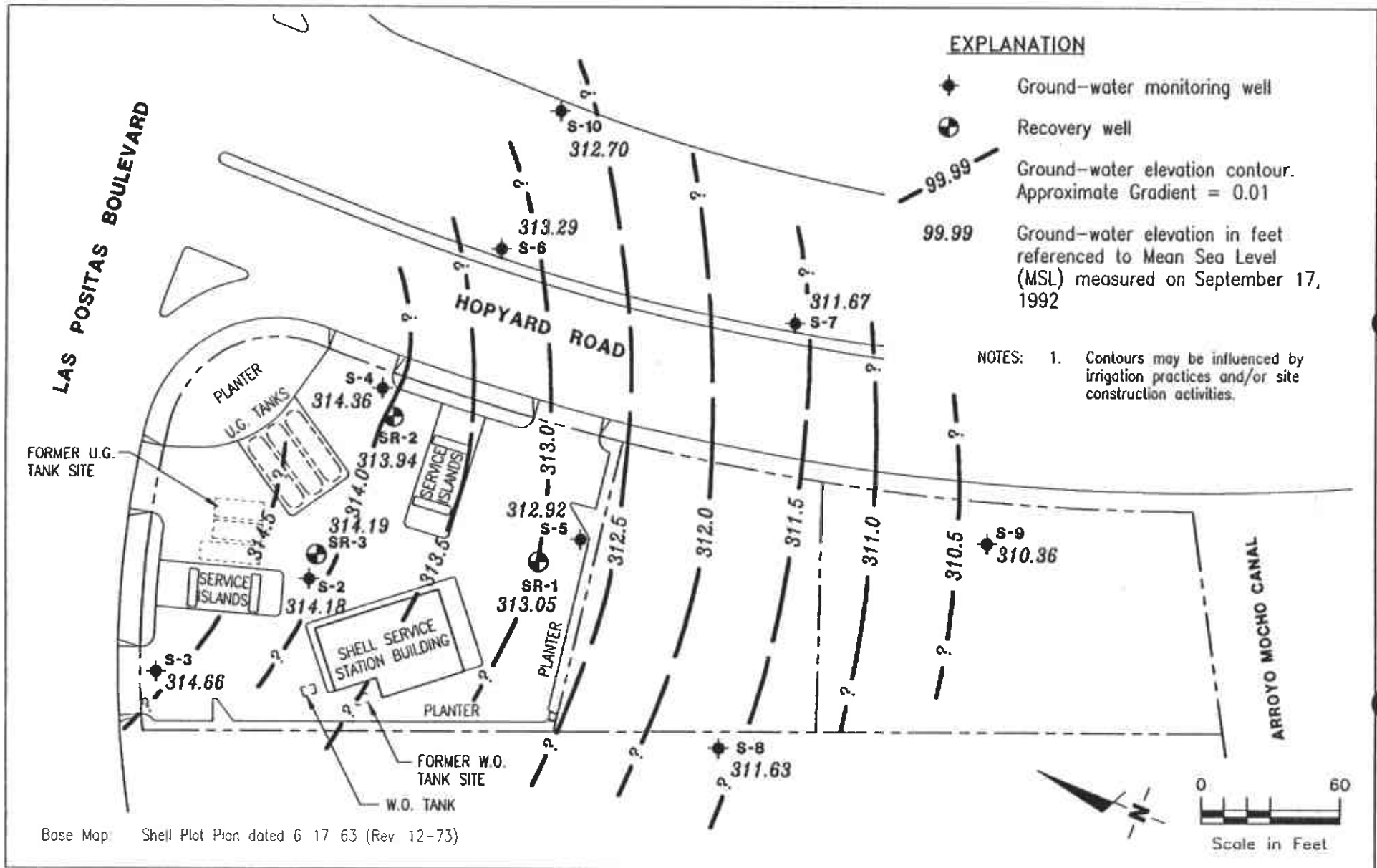
1

JOB NUMBER
7632

REVIEWED BY
lee

DATE
2/91

REVISED DATE



EXPLANATION

- ◆ Ground-water monitoring well
- ⊕ Recovery well
- - - 99.99 Ground-water elevation contour. Approximate Gradient = 0.01
- 99.99 Ground-water elevation in feet referenced to Mean Sea Level (MSL) measured on September 17, 1992

NOTES: 1. Contours may be influenced by irrigation practices and/or site construction activities.

Base Map: Shell Plot Plan dated 6-17-63 (Rev 12-73)



GeoStrategies Inc.

SITE PLAN/POTENTIOMETRIC MAP

Shell Service Station
3790 Hopyard Road
Pleasanton, California

PLATE

2

JOB NUMBER
763201-15

REVIEWED BY
SW

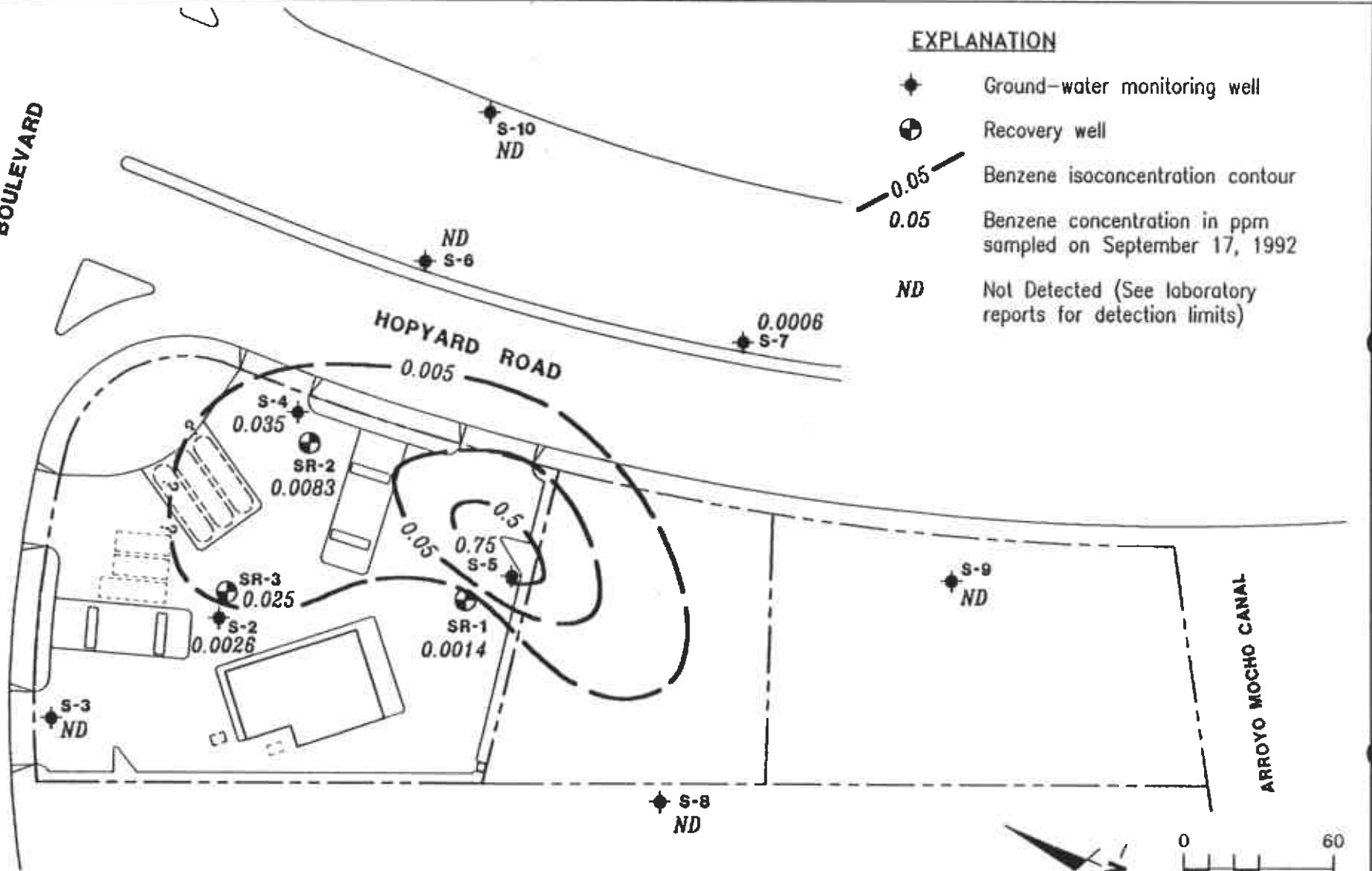
DATE
11/92

REVISED DATE

EXPLANATION

- ◆ Ground-water monitoring well
- ⊕ Recovery well
- 0.05— Benzene isoconcentration contour
- 0.05 Benzene concentration in ppm sampled on September 17, 1992
- ND Not Detected (See laboratory reports for detection limits)

LAS POSITAS BOULEVARD



Base Map: Shell Plot Plan dated 6-17-63 (Rev 12-73)



GeoStrategies Inc.

BENZENE ISOCONCENTRATION MAP

Shell Service Station
3790 Hopyard Road
Pleasanton, California

PLATE

3

JOB NUMBER
763201-15

REVIEWED BY
[Signature]

DATE
11/92

REVISED DATE

GeoStrategies Inc.

**APPENDIX A
EMCON MONITORING REPORT
AND
CHAIN-OF-CUSTODY**



EMCON
ASSOCIATES

Consultants in Wastes
Management and
Environmental Control

RECEIVED

OCT - 6 1992

GeoStrategies Inc.

October 2, 1992
Project: G67-26.01
WIC#: 204-6138-0501

Ms. Ellen Fostersmith
Geo Strategies Inc.
2140 West Winton Avenue
Hayward, California 94545

Re: Third quarter 1992 ground-water monitoring report, Shell Oil
Company, 3790 Hopyard Road, Pleasanton, California

Dear Ms. Fostersmith:

This letter presents the results of the third quarter 1992 ground-water monitoring event for the Shell Oil Company (Shell) site located at 3790 Hopyard Road, Pleasanton, California. Third quarter monitoring was conducted on September 17, 1992. The site is monitored quarterly.

GROUND-WATER LEVEL SURVEY

A water-level survey preceded the purging and sampling of the monitoring wells. The wells included in the survey are identified in figure 1 (supplied by Geo Strategies Inc.). During the survey, wells S-2 through S-10, SR-1, SR-2, and SR-3 were measured for depth to water, floating product thickness, and total depth. Depth to water and floating product thickness were measured to the nearest 0.01 foot with an oil/water interface probe. No floating product was observed in any wells. Results of the third quarter water-level survey, and available data from four previous surveys, are summarized in table 1.

SAMPLING AND ANALYSIS

Ground-water samples were collected from monitoring wells S-2 through S-10, SR-1, SR-2, and SR-3 on September 17, 1992. Prior to sample collection, the wells were purged with polyvinyl chloride bailers. During the purging operation, ground water was monitored for pH, electrical conductivity, and temperature as a function of volume of water removed. Purging continued until these parameters were stable and a minimum of three casing volumes of ground water were removed. Well S-4 was evacuated to dryness before the removal of three casing volumes. The well was allowed to recharge for up to 24 hours. Samples were collected after the well had recharged to a sufficient level. Field measurements from third quarter monitoring, and available measurements from four previous monitoring events, are summarized in table 1. Purge water from

G672601C.DOC

the monitoring wells was contained in 55-gallon drums. The drums were identified with Shell-approved labels and secured for on-site storage.

Ground-water samples were collected with a Teflon® bailer, labeled, placed on ice, and transported to Anametrix Inc. for analysis. Shell chain-of-custody documents accompanied all samples to the laboratory.

All equipment that was placed down a well or that came in contact with ground water was steam cleaned with deionized water prior to use at each well.

Quality control samples for third quarter monitoring included a trip blank (TB), a field blank (FB), and a duplicate well sample (SD-10) collected from well S-10. All water samples collected during third quarter monitoring were analyzed for total petroleum hydrocarbons as gasoline (TPH-g), and benzene, toluene, ethylbenzene, and total xylenes (BTEX).

ANALYTICAL RESULTS

Analytical results for the third quarter 1992 monitoring event, and available results from four previous monitoring events, are summarized in table 2. The original certified analytical report and final chain-of-custody document are attached.

If you have any questions, please call.

Very truly yours,

EMCON Associates


David Larsen
Environmental Sampling Coordinator


Orrin Childs
Environmental Sampling Supervisor

DL/OC:dl

Attachments: Table 1 - Monitoring well field measurement data
Table 2 - Summary of analytical results
Figure 1 - Site plan
Certified analytical report
Chain-of-custody document

Table 1
Monitoring Well Field Measurement Data
Third Quarter 1992

Shell Station: 3790 Hopyard Road
Pleasanton, California
NIC #: 204-8138-0501

Date: 10/01/92
Project Number: G87-26.01

Well Designation	Water Level Field Date	TOB Elevation (ft-MSL)	Depth to Water (feet)	Ground-water Elevation (ft-MSL)	Total Well Depth (feet)	Floating Product Thickness (feet)	Water Sample Field Date	pH (std. units)	Electrical Conductivity (micromhos/cm)	Temperature (degrees F)	Turbidity (NTU)
S-2	09/05/91	329.21	15.50	313.71	34.4	NR	09/05/91	6.69	3780	74.0	NR
S-2	12/13/91	329.21	15.85	313.36	34.1	NR	12/13/91	7.21	3360	68.3	NR
S-2	03/11/92	329.21	14.94	314.27	34.0	ND	03/11/92	6.59	4830	68.2	>200
S-2	06/24/92	329.21	15.78	313.43	35.1	ND	06/15/92	6.68	4320	63.3	>200
S-2	09/17/92	329.21	15.03	314.18	35.1	ND	09/17/92	6.96	4770	69.2	>1000
S-3	09/05/91	327.67	13.58	314.09	34.8	NR	09/05/91	6.69	4020	70.3	NR
S-3	12/13/91	327.67	13.87	313.80	34.9	NR	12/13/91	6.79	3810	69.5	NR
S-3	03/11/92	327.67	13.05	314.62	34.6	ND	03/11/92	6.67	5280	65.2	>200
S-3	06/24/92	327.67	13.86	313.81	35.1	ND	06/15/92	6.82	4440	63.5	>200
S-3	09/17/92	327.67	13.01	314.66	34.9	ND	09/17/92	6.60	5600	67.5	>200
S-4	09/05/91	328.53	14.84	313.69	35.6	NR	09/05/91	6.33	3130	68.0	NR
S-4	12/13/91	328.53	15.20	313.33	35.5	NR	12/13/91	7.00	2760	65.0	NR
S-4	03/11/92	328.53	14.37	314.16	35.5	ND	03/11/92	7.62	3440	65.6	>200
S-4	06/24/92	328.53	15.30	313.23	36.1	ND	06/16/92	6.86	3380	69.8	>200
S-4	09/17/92	328.53	14.17	314.36	36.0	ND	09/17/92	6.88	4730	69.7	>1000
S-5	09/05/91	329.66	17.30	312.36	34.3	NR	09/05/91	6.88	2190	68.4	NR
S-5	12/13/91	329.66	17.48	312.18	34.4	NR	12/13/91	7.50	2670	63.9	NR
S-5	03/11/92	329.66	16.22	313.44	34.0	ND	03/11/92	6.55	1831	66.0	>200
S-5	06/24/92	329.66	17.47	312.19	34.5	ND	06/16/92	6.53	2250	70.3	>200
S-5	09/17/92	329.66	16.84	312.82	34.5	ND	09/17/92	6.42	3050	68.8	>200

TOB = top of well box
ft-MSL = elevation in feet, relative to mean sea level
std. units = standard pH units
micromhos/cm = micromhos per centimeter
degrees F = degrees Fahrenheit
NTU = nephelometric turbidity units
NR = Not reported; data not available
ND = None detected

Table 1
Monitoring Well Field Measurement Data
Third Quarter 1992

Shell Station: 3790 Hopyard Road
 Plessanton, California
 WIC #: 204-6138-0501

Date: 10/01/92
 Project Number: G87-26.01

Well Desig- nation	Water Level Field Date	TOB Elevation (ft-MSL)	Depth to Water (feet)	Ground- water Elevation (ft-MSL)	Total Well Depth (feet)	Floating Product Thickness (feet)	Water Sample Field Date	pH (std. units)	Electrical Conductivity (micromhos/cm)	Temperature (degrees F)	Turbidity (NTU)
S-6	09/05/91	327.62	16.00	311.62	34.2	NR	09/05/91	6.78	1864	68.0	NR
S-6	12/13/91	327.62	15.11	312.51	34.2	NR	12/13/91	6.80	1561	68.1	NR
S-6	03/11/92	327.62	16.35	311.27	34.0	ND	03/11/92	6.76	2090	64.5	>200
S-6	06/24/92	327.62	16.51	311.11	34.8	ND	06/15/92	6.64	1771	61.9	>200
S-6	09/17/92	327.62	14.33	313.29	34.8	ND	09/17/92	6.83	2210	67.8	>1000
S-7	09/05/91	328.67	17.50	311.17	34.6	NR	09/05/91	6.58	3370	67.6	NR
S-7	12/13/91	328.67	17.70	310.97	34.8	NR	12/13/91	6.73	3150	67.1	NR
S-7	03/11/92	328.67	17.08	311.61	34.7	ND	03/11/92	7.35	4310	63.4	>200
S-7	06/24/92	328.67	17.80	310.87	35.0	ND	06/15/92	6.87	4440	66.3	>200
S-7	09/17/92	328.67	17.00	311.67	34.6	ND	09/17/92	6.74	5390	66.1	>1000
S-8	09/05/91	327.00	15.71	311.29	33.7	NR	09/05/91	6.18	3760	66.5	NR
S-8	12/13/91	327.00	15.73	311.27	34.2	NR	12/13/91	7.50	3490	63.8	NR
S-8	03/11/92	327.00	14.64	312.36	34.0	ND	03/11/92	7.00	3550	62.0	>200
S-8	06/24/92	327.00	15.77	311.23	34.4	ND	06/15/92	6.60	4280	60.9	>200
S-8	09/17/92	327.00	15.37	311.63	34.2	ND	09/17/92	6.51	5800	68.1	>200
S-9	09/05/91	328.24	18.34	309.90	34.8	NR	09/05/91	6.17	3390	66.7	NR
S-9	12/13/91	328.24	18.18	310.06	34.9	NR	12/13/91	7.50	3010	63.4	NR
S-9	03/11/92	328.24	17.37	310.87	34.7	ND	03/11/92	6.63	4600	63.4	>200
S-9	06/24/92	328.24	18.45	309.79	34.8	ND	06/16/92	6.60	4080	68.8	>200
S-9	09/17/92	328.24	17.88	310.36	34.8	ND	09/17/92	6.80	4590	67.8	>1000

TOB = top of well box
 ft-MSL = elevation in feet, relative to mean sea level
 std. units = standard pH units
 micromhos/cm = micromhos per centimeter
 degrees F = degrees Fahrenheit
 NTU = nephelometric turbidity units
 NR = Not reported; data not available
 ND = None detected

Table 1
Monitoring Well Field Measurement Data
Third Quarter 1992

Shell Station: 3790 Hopyard Road
Pleasanton, California
WIC #: 204-8138-0501

Date: 10/01/92
Project Number: 067-26.01

Well Desig- nation	Water Level Field Date	TOB Elevation (ft-MSL)	Depth to Water (feet)	Ground- water Elevation (ft-MSL)	Total Well Depth (Feet)	Floating Product Thickness (feet)	Water Sample Field Date	pH (std. units)	Electrical Conductivity (micromhos/cm)	Temperature (degrees F)	Turbidity (NTU)
S-10	09/05/91	328.55	14.56	311.99	34.2	NR	09/05/91	6.79	2010	85.9	NR
S-10	12/13/91	328.55	14.77	311.78	34.1	NR	12/13/91	6.82	1904	86.1	NR
S-10	03/11/92	328.55	14.16	312.39	34.1	ND	03/11/92	7.28	1385	82.9	>200
S-10	06/24/92	328.55	14.83	311.72	34.3	ND	06/15/92	6.49	1696	84.6	>200
S-10	09/17/92	328.55	13.85	312.70	34.4	ND	09/17/92	6.59	2310	85.8	148
SR-1	09/05/91	329.78	17.17	312.61	35.2	NR	09/05/91	6.80	3680	89.6	NR
SR-1	12/13/91	329.78	17.37	312.41	35.2	NR	12/13/91	6.50	3460	85.2	NR
SR-1	03/11/92	329.78	16.39	313.39	34.9	ND	03/11/92	6.56	4890	88.9	80.
SR-1	06/24/92	329.78	17.42	312.36	35.1	ND	06/15/92	6.78	5220	87.2	>200
SR-1	09/17/92	329.78	16.73	313.05	35.1	ND	09/17/92	6.45	5490	86.9	>200
SR-2	09/05/91	328.35	15.52	312.83	35.2	NR	09/05/91	6.32	3370	87.8	NR
SR-2	12/13/91	328.35	15.27	313.08	35.2	NR	12/13/91	7.50	3070	85.5	NR
SR-2	03/11/92	328.35	15.02	313.33	35.0	ND	03/11/92	7.51	4700	86.3	51.
SR-2	06/24/92	328.35	15.41	312.94	35.3	ND	06/15/92	6.64	3510	59.8	>200
SR-2	09/17/92	328.35	14.41	313.94	35.2	ND	09/17/92	6.95	5540	86.9	>1000
SR-3	09/05/91	329.11	15.60	313.51	35.1	NR	09/05/91	6.23	3590	86.7	NR
SR-3	12/13/91	329.11	15.80	313.31	35.0	NR	12/13/91	6.50	3140	86.8	NR
SR-3	03/11/92	329.11	14.85	314.26	34.8	ND	03/11/92	6.51	4350	87.8	>200
SR-3	06/24/92	329.11	15.78	313.33	35.1	ND	06/16/92	6.24	3400	73.3	>200
SR-3	09/17/92	329.11	14.92	314.19	34.9	ND	09/17/92	7.72	4260	86.2	>1000

TOB = top of well box

ft-MSL = elevation in feet, relative to mean sea level

std. units = standard pH units

micromhos/cm = micromhos per centimeter

degrees F = degrees Fahrenheit

NTU = nephelometric turbidity units

NR = Not reported; data not available

ND = None detected

Table 2
 Summary of Analytical Results
 Third Quarter 1992
 milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 3790 Hopyard Road
 Pleasanton, California
 WIC #: 204-8138-0501

Date: 10/01/92
 Project Number: 087-26.01

Sample Designation	Water Sample Field Date	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
S-2	09/05/91	0.09	0.012	0.0032	0.0025	0.0023
S-2	12/13/91	<0.05	0.012	<0.0005	<0.0005	<0.0005
S-2	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-2	06/15/92	<0.05	0.0009	<0.0005	<0.0005	<0.0005
S-2	09/17/92	0.078	0.0026	<0.0005	0.0013	0.0009
S-3	09/05/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-3	12/13/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-3	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-3	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-3	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
SD-3	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-4	09/05/91	0.58	0.031	0.0008	0.053	0.026
S-4	12/13/91	0.37	0.024	0.0009	0.0013	0.046
S-4	03/11/92	1.8	0.023	0.0012	0.012	0.02
S-4	06/18/92	0.48	0.048	<0.001	0.095	0.022
S-4	09/17/92	0.26	0.035	0.0012	0.051	0.0078
S-5	09/05/91	4.7	0.66	0.15	0.17	0.28
S-5	12/13/91	1.4	0.58	0.019	0.11	0.08
S-5	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-5	06/16/92	1.8	0.38	0.052	0.12	0.18
S-5	09/17/92	2.2	0.75	0.091	0.17	0.17

TPH-g = total petroleum hydrocarbons as gasoline

Table 2
 Summary of Analytical Results
 Third Quarter 1992
 milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 3790 Hopyard Road
 Pleasanton, California
 WIC #: 204-6138-0501

Date: 10/01/92
 Project Number: G67-26.01

Sample Designation	Water Sample Field Date	TPH-g (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Total Xylenes (mg/l)
S-6	09/05/91	0.06	<0.0005	0.0008	<0.0005	0.0005
S-6	12/13/91	0.15	0.0023	<0.0005	<0.0005	0.15
S-6	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-6	06/15/92	0.17	<0.0005	<0.0005	<0.0005	<0.0005
S-6	09/17/92	0.19	<0.0005	0.0016	<0.0005	0.0012
S-7	09/05/91	<0.05	<0.0005	0.0008	<0.0005	<0.0005
S-7	12/13/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-7	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-7	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-7	09/17/92	<0.05	0.0006	0.0006	<0.0005	<0.0005
S-8	09/05/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-8	12/13/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-8	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-8	06/15/92	<0.05	0.0014	0.0019	<0.0005	<0.0005
S-8	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-9	09/05/91	<0.05	<0.0005	0.0008	<0.0005	<0.0005
S-9	12/13/91	<0.05	<0.0005	0.0008	<0.0005	<0.0005
S-9	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-9	06/16/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-9	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
SD-9	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003

TPH-g = total petroleum hydrocarbons as gasoline

Table 2
 Summary of Analytical Results
 Third Quarter 1992
 milligrams per liter (mg/l) or parts per million (ppm)

Shell Station: 3790 Hopyard Road
 Pleasanton, California
 WIC #: 204-6138-0501

Date: 10/01/92
 Project Number: G87-26.01

Sample Designation	Water Sample Field Date	TPH-g (mg/l)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Total Xylenes (mg/l)
S-10	09/05/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-10	12/13/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-10	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
S-10	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-10	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
SD-10	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
SR-1	09/05/91	<0.05	0.0086	<0.0005	0.0007	<0.0005
SR-1	12/13/91	0.07	0.0094	0.0071	0.0066	0.022
SR-1	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
SR-1	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
SR-1	09/17/92	0.051	0.0014	<0.0005	<0.0005	<0.0005
SR-2	09/05/91	<0.05	0.0012	<0.0005	0.0012	<0.0005
SR-2	12/13/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
SR-2	03/11/92	<0.03	0.00051	<0.0003	<0.0003	<0.0003
SR-2	06/15/92	0.12	0.0060	0.0010	0.0007	0.0021
SR-2	09/17/92	0.14	0.0083	0.0006	0.0009	0.0007
SR-3	09/05/91	0.16	0.019	<0.0005	0.008	0.0059
SR-3	12/13/91	0.05	0.013	<0.0005	0.0031	0.0047
SR-3	03/11/92	0.41	0.028	0.0016	0.022	0.024
SR-3	06/16/92	0.60	0.055	0.0021	0.028	0.033
SR-3	09/17/92	0.21	0.025	0.0018	0.017	0.020
SF-2	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
SF-3	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005

TPH-g = total petroleum hydrocarbons as gasoline

Table 2
 Summary of Analytical Results
 Third Quarter 1992
 milligrams per liter (mg/l) or parts per million (ppm)

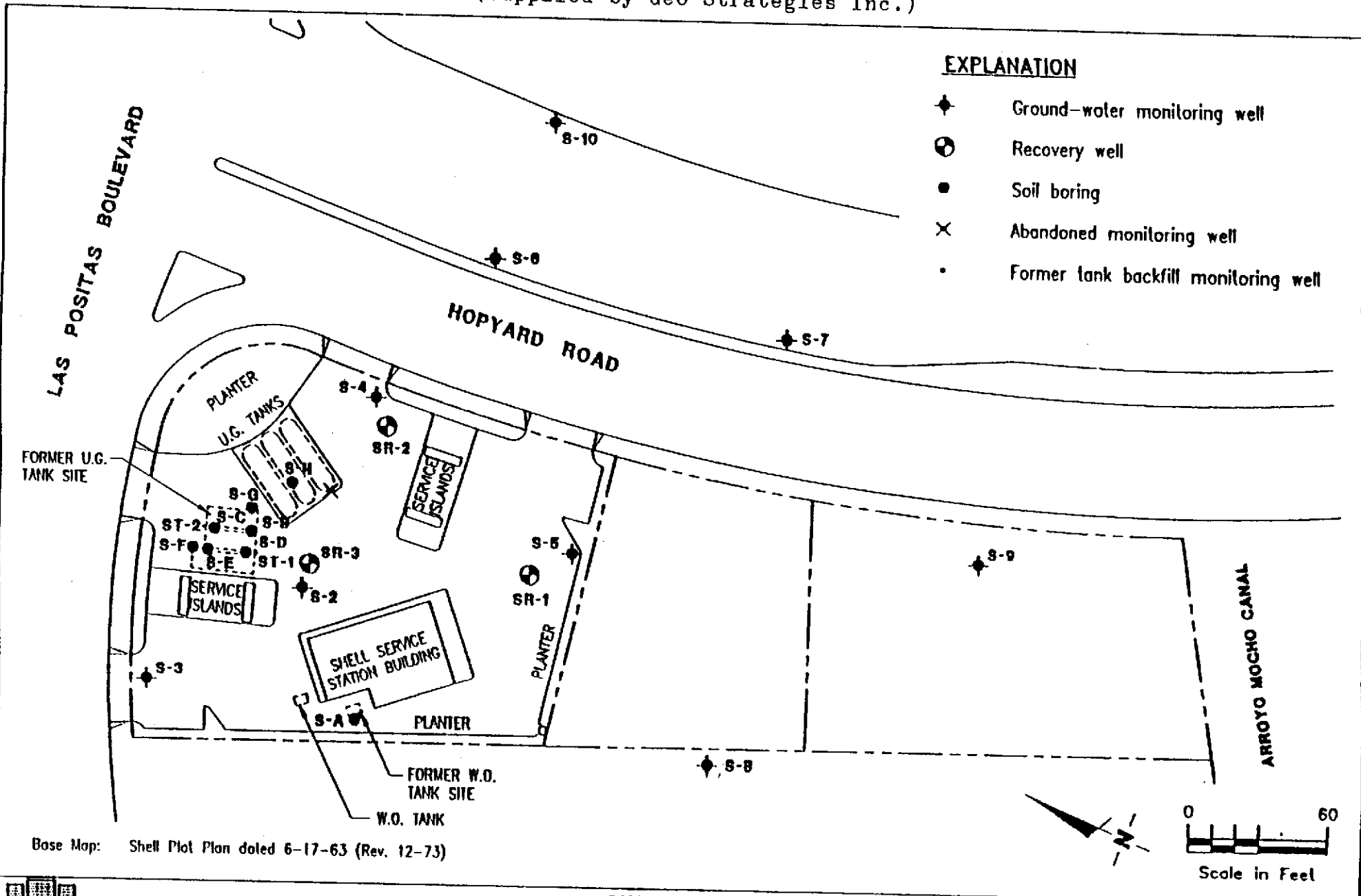
Shell Station: 3790 Hopyard Road
 Pleasanton, California
 WIC #: 204-6138-0501

Date: 10/01/92
 Project Number: G67-28.01

Sample Designation	Water Sample Field Date	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes
		(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)
FB	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
TB	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
TB	06/18/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
TB	09/17/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005

TPH-g = total petroleum hydrocarbons as gasoline

Figure 1
 (Supplied by Geo Strategies Inc.)



GeoStrategies Inc.

SITE PLAN
 Shell Service Station
 3790 Hopyard Road
 Pleasanton, California

JOB NUMBER
 763201-11

REVIEWED BY
 EFS

DATE
 11/91

REVISED DATE

ANAMETRIX INC

Environmental & Analytical Chemistry
 1961 Concourse Drive, Suite E, San Jose, CA 95131
 (408) 432-8192 • Fax (408) 432-8198

**REPORT**

MR. DAVID LARSEN
 EMCON ASSOCIATES
 1938 JUNCTION AVE.
 SAN JOSE, CA 95131

Workorder # : 9209232
 Date Received : 09/17/92
 Project ID : 204-6138-0501
 Purchase Order: MOH-B813

The following samples were received at Anamatrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9209232- 1	S-3
9209232- 2	S-7
9209232- 3	S-8
9209232- 4	S-9
9209232- 5	S-10
9209232- 6	SR-2
9209232- 7	S-6
9209232- 8	SR-1
9209232- 9	S-2
9209232-10	SR-3
9209232-11	S-4
9209232-12	S-5
9209232-13	TB
9209232-14	FB
9209232-15	SD-10

This report consists of 8 pages not including the cover letter, and is organized in sections according to the specific Anamatrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anamatrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anamatrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415) 540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anamatrix.

Sarah Schoen
 Sarah Schoen, Ph.D.
 Laboratory Director

9-29-92
 Date

EMCON ASSOCIATES

SEP 30 1992

RECEIVED

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209232
Date Received : 09/17/92
Project ID : 204-6138-0501
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9209232- 1	S-3	WATER	09/17/92	TPHg/BTEX
9209232- 2	S-7	WATER	09/17/92	TPHg/BTEX
9209232- 3	S-8	WATER	09/17/92	TPHg/BTEX
9209232- 4	S-9	WATER	09/17/92	TPHg/BTEX
9209232- 5	S-10	WATER	09/17/92	TPHg/BTEX
9209232- 6	SR-2	WATER	09/17/92	TPHg/BTEX
9209232- 7	S-6	WATER	09/17/92	TPHg/BTEX
9209232- 8	SR-1	WATER	09/17/92	TPHg/BTEX
9209232- 9	S-2	WATER	09/17/92	TPHg/BTEX
9209232-10	SR-3	WATER	09/17/92	TPHg/BTEX
9209232-11	S-4	WATER	09/17/92	TPHg/BTEX
9209232-12	S-5	WATER	09/17/92	TPHg/BTEX
9209232-13	TB	WATER	09/17/92	TPHg/BTEX
9209232-14	FB	WATER	09/17/92	TPHg/BTEX
9209232-15	SD-10	WATER	09/17/92	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. DAVID LARSEN
EMCON ASSOCIATES
1938 JUNCTION AVE.
SAN JOSE, CA 95131

Workorder # : 9209232
Date Received : 09/17/92
Project ID : 204-6138-0501
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balmer
Department Supervisor

9/28/92
Date

Art Paulsen
Chemist

09/28/92

Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9209232
Matrix : WATER
Date Sampled : 09/17/92

Project Number : 204-6138-0501
Date Released : 09/28/92

	Reporting Limit	Sample I.D.# S-3	Sample I.D.# S-7	Sample I.D.# S-8	Sample I.D.# S-9	Sample I.D.# S-10
COMPOUNDS	(mg/L)	-01	-02	-03	-04	-05
Benzene	0.0005	ND	0.0006	ND	ND	ND
Toluene	0.0005	ND	0.0006	ND	ND	ND
Ethylbenzene	0.0005	ND	ND	ND	ND	ND
Total Xylenes	0.0005	ND	ND	ND	ND	ND
TPH as Gasoline	0.050	ND	ND	ND	ND	ND
% Surrogate Recovery		86%	97%	86%	91%	91%
Instrument I.D.		HP12	HP12	HP12	HP12	HP12
Date Analyzed		09/22/92	09/22/92	09/22/92	09/22/92	09/22/92
RLMF		1	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

LSB 09/28/92
Analyst Date

Cheryl Balman 9/28/92
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9209232
Matrix : WATER
Date Sampled : 09/17/92

Project Number : 204-6138-0501
Date Released : 09/28/92

COMPOUNDS	Reporting	Sample	Sample	Sample	Sample	Sample
	Limit	I.D.#	I.D.#	I.D.#	I.D.#	I.D.#
	(mg/L)	SR-2	S-6	SR-1	S-2	SR-3
Benzene	0.0005	0.0083	ND	0.0014	0.0026	0.025
Toluene	0.0005	0.0006	0.0016	ND	ND	0.0018
Ethylbenzene	0.0005	0.0009	ND	ND	0.0013	0.017
Total Xylenes	0.0005	0.0007	0.0012	ND	0.0009	0.020
TPH as Gasoline	0.050	0.14	0.19	0.051	0.078	0.21
% Surrogate Recovery		109%	101%	99%	97%	114%
Instrument I.D.		HP12	HP12	HP12	HP12	HP12
Date Analyzed		09/22/92	09/22/92	09/22/92	09/22/92	09/22/92
RLMF		1	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

[Signature] 09/28/92
Analyst Date

[Signature] 9/28/92
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9209232
Matrix : WATER
Date Sampled : 09/17/92

Project Number : 204-6138-0501
Date Released : 09/28/92

	Reporting Limit	Sample I.D.# S-4	Sample I.D.# S-5	Sample I.D.# TB	Sample I.D.# FB	Sample I.D.# SD-10
-----	-----	-----	-----	-----	-----	-----
COMPOUNDS	(mg/L)	-11	-12	-13	-14	-15
-----	-----	-----	-----	-----	-----	-----
Benzene	0.0005	0.035	0.75	ND	ND	ND
Toluene	0.0005	0.0012	0.091	ND	ND	ND
Ethylbenzene	0.0005	0.051	0.17	ND	ND	ND
Total Xylenes	0.0005	0.0078	0.17	ND	ND	ND
TPH as Gasoline	0.050	0.26	2.2	ND	ND	ND
% Surrogate Recovery		114%	100%	102%	106%	117%
Instrument I.D.		HP12	HP12	HP12	HP12	HP12
Date Analyzed		09/22/92	09/23/92	09/22/92	09/22/92	09/22/92
RLMF		1	10	1	1	1

-
- ND - Not detected at or above the practical quantitation limit for the method.
 - TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
 - BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
 - RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Greg Bental 09/28/92
Analyst Date

Charles Belman 9/28/92
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
 (GASOLINE WITH BTEX)
 ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9209232
 Matrix : WATER
 Date Sampled : N/A

Project Number : 204-6138-0501
 Date Released : 09/28/92

COMPOUNDS	Reporting Limit	Sample I.D.#	Sample I.D.#
	(mg/L)	BS2201E3	BS2301E3
		BLANK	BLANK
Benzene	0.0005	ND	ND
Toluene	0.0005	ND	ND
Ethylbenzene	0.0005	ND	ND
Total Xylenes	0.0005	ND	ND
TPH as Gasoline	0.050	ND	ND
% Surrogate Recovery		103%	103%
Instrument I.D.		HP12	HP12
Date Analyzed		09/22/92	09/23/92
RLMF		1	1

ND - Not detected at or above the practical quantitation limit for the method.
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
 RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

[Signature]
 Analyst
09/28/92
 Date

[Signature]
 Supervisor
09/28/92
 Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
 EPA METHOD 5030 WITH GC/FID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 204-6138-0501 SD-10	Anamatrix I.D. : 9209232-15
Matrix : WATER	Analyst :
Date Sampled : 09/17/92	Supervisor : <i>AP</i>
Date Analyzed : 09/22/92	Date Released : <i>ce</i> 09/28/92
	Instrument I.D.: HP12

COMPOUND	SPIKE AMT (mg/L)	SAMPLE CONC (mg/L)	REC MS	%REC MS	REC MD (mg/L)	%REC MD	RPD	%REC LIMITS
BENZENE	0.020	0.000	0.020	100%	0.020	100%	0%	49-159
TOLUENE	0.020	0.000	0.020	100%	0.020	100%	0%	53-156
ETHYLBENZENE	0.020	0.000	0.019	95%	0.019	95%	0%	54-151
M+P-XYLENES	0.0133	0.000	0.0130	98%	0.0130	98%	0%	56-157
O-XYLENE	0.0067	0.000	0.0067	100%	0.0070	104%	4%	56-157
p-BFB				105%		99%		53-147

* Quality control established by Anamatrix, Inc.

BTEX LABORATORY CONTROL SAMPLE REPORT
 EPA METHOD 5030 WITH GC/PID
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE	Anametrix I.D. : LCSW0922
Matrix : WATER	Analyst : <i>AO</i>
Date Sampled : N/A	Supervisor : <i>CB</i>
Date Analyzed : 09/22/92	Date Released : 09/28/92
	Instrument ID : HP12

COMPOUND	SPIKE AMT. (mg/L)	LCS (mg/L)	REC LCS	%REC LIMITS
<hr style="border-top: 1px dashed black;"/>				
Benzene	0.020	0.020	100%	49-159
Toluene	0.020	0.020	100%	53-156
Ethylbenzene	0.020	0.019	95%	54-151
M+P-Xylenes	0.0133	0.0130	98%	56-157
O-Xylene	0.0067	0.0070	104%	58-154
P-BFB			99%	53-147

* Limits established by Anametrix, Inc.



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

9709232

(18)

10:35 AM

CHAIN OF CUSTODY RECORD

Serial No: 1035-5

Date: 9-17-92

Page 1 of 2

Site Address: 7790 Hayward Road
 Pleasanton, CA

WIC#: 204-6138-0501

Shell Engineer: Dan Kirk
 Phone No.: (510) 675-6168

Consultant Name & Address: EMCON Associates
 1938 Junction Avenue San Jose, CA 95131

Consultant Contact: David Larsen
 Phone No.: (408) 453-2269

Comments: 3-VOLATILE for gas, BTEX

Sampled by: Kevin Reichelderfer

Printed Name: KEVIN REICHELDERFER

Analysis Required

TPH (EPA 8015 Mod. GCS)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 RESIDUE	Asbestos	Container Size	Preparation Used	Composite Y/N
					X		40 ml	HCl	No

LAB: AnametriX

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/>	6441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	6441	48 hours <input type="checkbox"/>
Soil Classfy/Disposal <input type="checkbox"/>	6442	16 days <input checked="" type="checkbox"/> (Normal)
Water Classfy/Disposal <input type="checkbox"/>	6443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	6462	
Water Rem. or Sys. O & M <input type="checkbox"/>	6463	
Other <input type="checkbox"/>		

NOTE: Notify Lab soon as Possible 24/48 hr. TAT.

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
(2) Bubbles	
(3) Bubbles	
(1) Bubbles	
↓	
(1) Bubbles	
(1) Bubbles	

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧

Relinquished By (signature): <i>Kevin Reichelderfer</i>	Printed Name: KEVIN REICHELDERFER	Date: 9-17-92
Relinquished By (signature): <i>[Signature]</i>	Printed Name: IAN GRAHAM	Date: 9-17-92
Relinquished By (signature):	Printed Name:	Date:

Received (signature): <i>Maria Barajas</i>	Printed Name: Maria Barajas	Date: 9-17-92
Received (signature): <i>Maria Barajas</i>	Printed Name: Maria Barajas	Date: 9-17-92
Received (signature):	Printed Name:	Date:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



SHELL OIL COMPANY 9209232
RETAIL ENVIRONMENTAL ENGINEERING - WEST

(18) 10-25-92
CHAIN OF CUSTODY RECORD
 Serial No: 1075-S

Date: 9-17-92
 Page 2 of 2

Site Address: 3790 Hopyard Road
 Pleasanton, CA

WIC#: 204-6138-0501

Shell Engineer: Dan Kirk
 Phone No.: (510) 675-6168

Consultant Name & Address: EMCON Associates
 1938 Junction Avenue, San Jose, CA 95131

Consultant Contact: David Larsen
 Phone No.: (408) 453-2269

Comments: See page 1

Sampled by: Kevin Reichelderfer

Printed Name: KEVIN REICHELDERFER

Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 <small>TPH & BTEX</small>	Asbestos	Container Size	Preparation Used	Composite Y/N
					X		40 ml	Hel	No

LAB: AnametriX

CHECK ONE (1) BOX ONLY	CI/DI	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/>	8441	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	8441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	8442	18 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	8443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	8482	
Water Rem. or Sys. O & M <input type="checkbox"/>	8483	
Other <input type="checkbox"/>		

NOTE: Notify Lab soon as Possible 24/48 hrs. TAT.

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020 <small>TPH & BTEX</small>	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
9) S-2	9-17-92			X		3						X		40 ml	Hel	No	(3) Bubbles	
10) SR-3																	(2) Bubbles	
11) S-4																	(3) Bubbles	
12) S-5																	(2) Bubbles	
13) TB																		
14) FB																		
15) SD-10																		

Relinquished By (signature): *Kevin Reichelderfer*
 Relinquished By (signature): *[Signature]*
 Relinquished By (signature): *[Signature]*

Printed Name: KEVIN REICHELDERFER
 Printed Name: JIM GRIFFIN
 Printed Name:

Date: 9-17-92
 Time: 16:00
 Date: 9-17-92
 Time: 16:00
 Date:
 Time:

Received (signature): *Maria Barajas*
 Received (signature):
 Received (signature):

Printed Name: Maria Barajas
 Printed Name:
 Printed Name:

Date: 9-17-92
 Time: 16:00
 Date:
 Time:
 Date:
 Time: