GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545
(510) 352-4800

August 7, 1992

Mr. Rick Mueller
City of Pleasanton
Pleasanton Fire Department
Post Office Box 520
Pleasanton, California 94566-0802

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

Mr. Mueller:

As requested by Mr. Dan Kirk of Shell Oil Company, we are forwarding a copy of the August 7, 1992 Quarterly Report prepared for the above referenced location. The report presents the results of the ground-water sampling conducted during the second quarter of 1992.

If you have any questions, please call.

Sincerely,

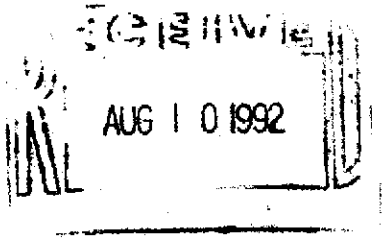
Ellen Fostersmith

Ellen Fostersmith
Geologist

EF/shl

Enclosure

cc: Mr. Lester Feldman, Regional Water Quality Control Board
Mr. Dan Kirk, Shell Oil Company

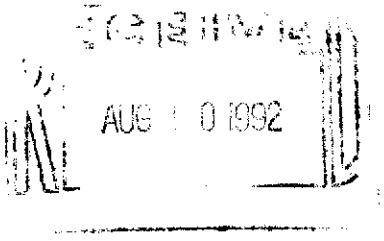


GeoStrategies Inc.

QUARTERLY REPORT

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

763201-14



August 7, 1992

GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545
(510) 352-4800

August 7, 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 second 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 June 24, 1992. Static ground-water levels were measured from the surveyed top of the well box and recorded to the nearest $\pm$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 southeast 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.

Ground-water samples were collected on June 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 Anametrix 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
Geologist

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

EXP: 6-30-94

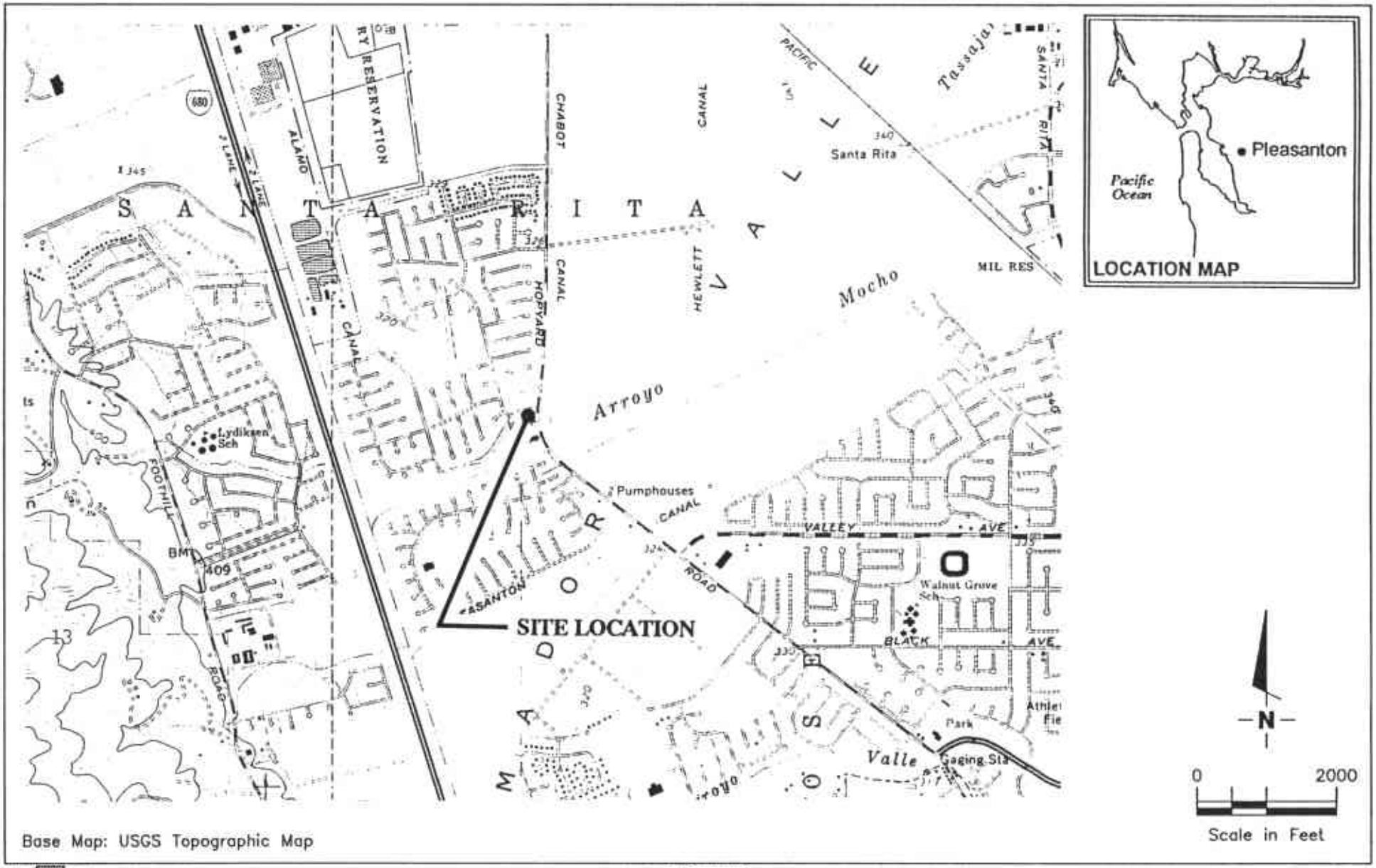
ECF/MCC/dls

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: _____

763201-14

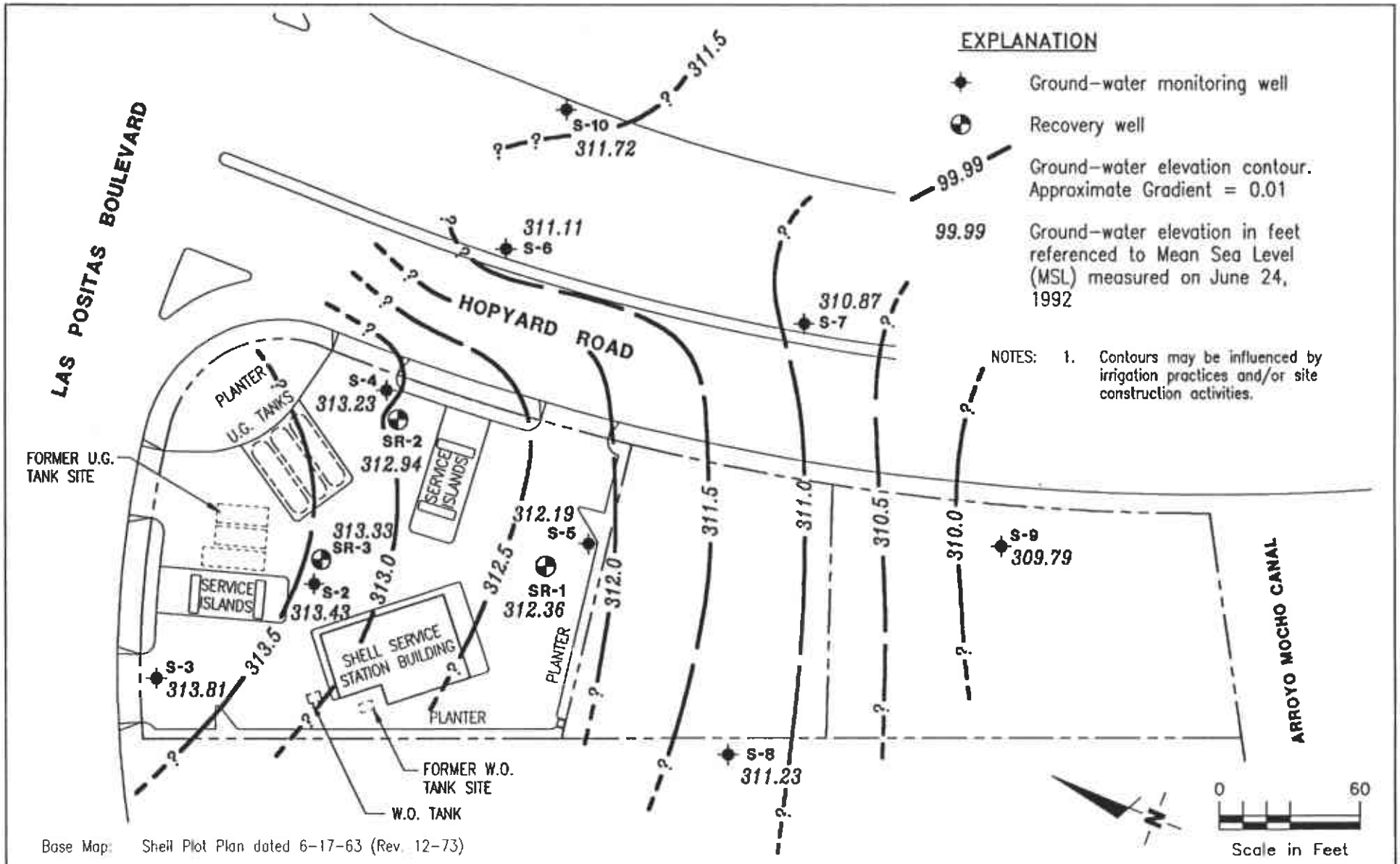


GeoStrategies Inc.

VICINITY MAP
Shell Service Station
3790 Hopyard Road
Pleasanton, California

PLATE 1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
7632		2/91	

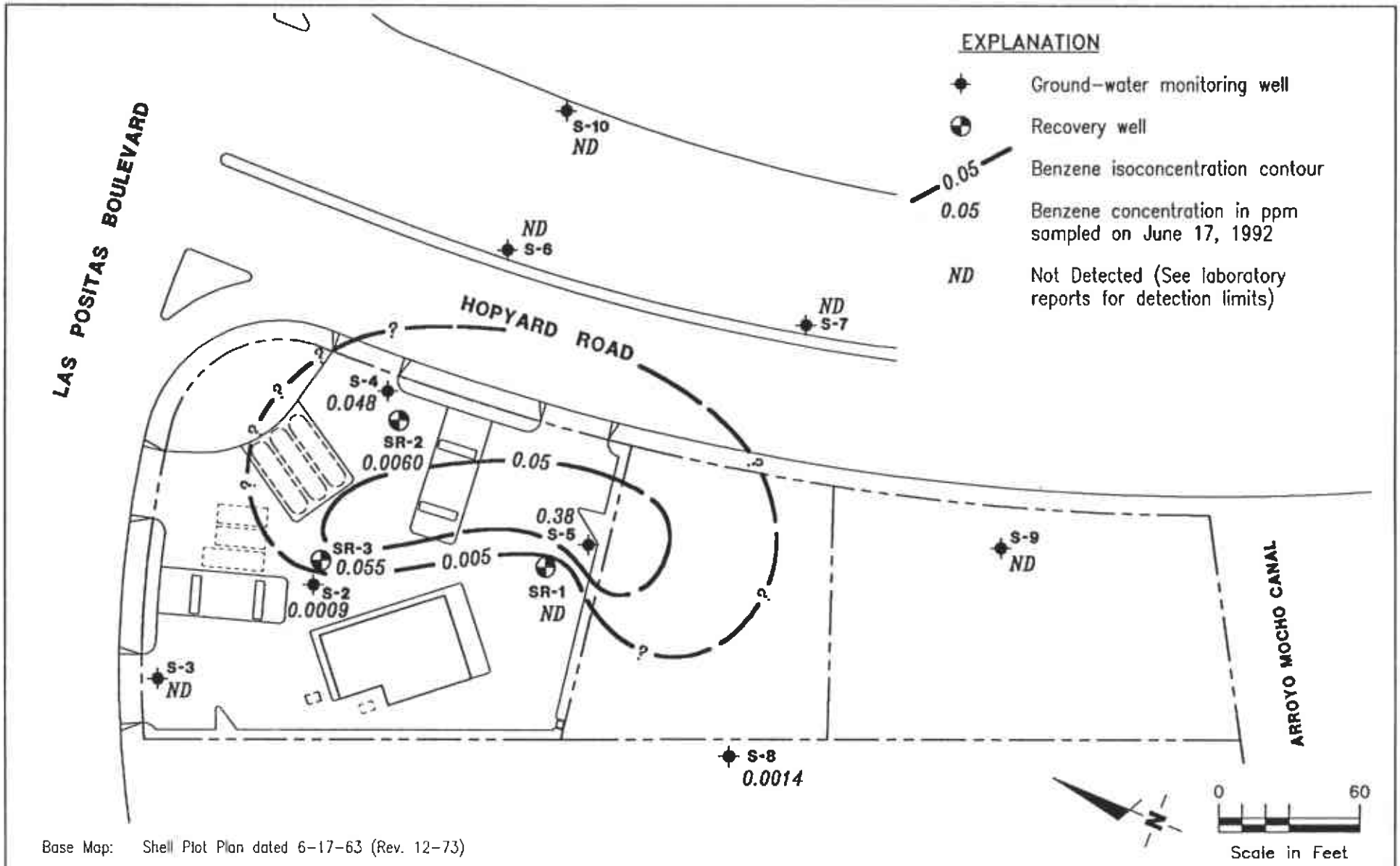


GeoStrategies Inc.

SITE PLAN/POTENTIOMETRIC MAP
Shell Service Station
3790 Hopyard Road
Pleasanton, California

PLATE **2**

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
763201-14		8/92	



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	REVIEWED BY	DATE	REVISED DATE
763201-14		8/92	

APPENDIX A
EMCON MONITORING REPORT
AND
CHAIN-OF-CUSTODY

RECEIVED
JUL 20 1992
GeoStrategies Inc.

EMCON ASSOCIATES
Consultants in Wastes Management and Environmental Control

July 17, 1992
Project: G67-26.01
WIC#: 204-6138-0501

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

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

Dear Ms. Fostersmith:

This letter presents the results of the second quarter 1992 ground-water monitoring event for the Shell Oil Company (Shell) site located at 3790 Hopyard Road, Pleasanton, California. Second quarter monitoring was conducted on June 15, 16, and 24, 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 the wells. Results of the second quarter water-level survey, and available data from four previous surveys, are summarized in table 1.

During the water-level survey conducted on June 15, 1992, depth-to-water measurements were incorrectly recorded to the tops of the well casings. A second water-level survey was conducted on June 24, 1992. The depth-to-water measurements from this survey were recorded to the tops of the well box rims. Data from the June 24 survey are included 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 June 15 and 16, 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

1938 Junction Avenue, San Jose, California 95131-2102, (408) 453-0719, Fax (408) 453-0452

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 level sufficient for sample collection. Field measurements from second quarter monitoring, and available measurements from four previous monitoring events, are summarized in table 1. Purge water from 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 a Shell-approved and state-certified analytical laboratory 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 second quarter monitoring included one trip blank (called TB), one field blank (called SF-3), and one duplicate well sample (called SD-3) collected from well S-3. All water samples collected during second 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 second quarter 1992 monitoring event, and available results from four previous monitoring events, are summarized in table 2. The original certified analytical report and chain-of-custody document are attached.

If you have any questions, please call.

Very truly yours,

EMCON Associates

David Larsen
Environmental Sampling Coordinator

For
Orrin Childs
Environmental Sampling Supervisor

DL/OC:dl

G672601B.DOC

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

Table 1
Monitoring Well Field Measurement Data
Third Quarter 1992

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

Date: 07/17/92
Project Number: G87-28.01

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	06/26/91	329.21	15.31	313.90	33.9	NR	06/26/91	6.74	4580	68.5	NR
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	66.3	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-3	06/26/91	327.67	13.34	314.33	34.8	NR	06/26/91	6.85	4620	68.0	NR
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	3610	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	6.62	4440	63.5	>200
S-4	06/26/91	328.53	14.75	313.78	35.4	NR	06/26/91	6.87	4210	67.7	NR
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	65.8	>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-5	06/26/91	329.66	17.11	312.55	34.2	NR	06/26/91	6.88	2360	66.3	NR
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

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 #: 204-6138-0501

Date: 07/17/92
Project Number: G67-26.01

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-6	06/26/91	327.62	15.32	312.30	34.1	NR	06/26/91	6.89	2380	64.6	NR
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-7	06/26/91	328.67	17.40	311.27	34.6	NR	06/26/91	6.83	4160	65.9	NR
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	17.06	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-8	06/26/91	327.00	15.46	311.54	33.8	NR	06/26/91	6.68	4890	66.3	NR
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-9	06/26/91	328.24	18.18	310.06	34.8	NR	06/26/91	6.53	4370	66.7	NR
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

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 #: 204-6138-0501

Date: 07/17/92
Project Number: G87-26.01

Well Designation	Water Level Field Date	TOB Elevation (ft-MSL)	Depth to Water (feet)	Groundwater 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	06/26/91	326.55	14.44	312.11	34.1	NR	06/26/91	6.67	2410	64.9	NR
S-10	09/05/91	326.55	14.56	311.99	34.2	NR	09/05/91	6.79	2010	65.9	NR
S-10	12/13/91	326.55	14.77	311.78	34.1	NR	12/13/91	6.82	1904	66.1	NR
S-10	03/11/92	326.55	14.16	312.39	34.1	ND	03/11/92	7.28	1385	62.9	>200
S-10	06/24/92	326.55	14.83	311.72	34.3	ND	06/15/92	6.49	1696	64.6	>200
SR-1	06/26/91	329.78	16.99	312.79	35.2	NR	06/26/91	6.56	4790	67.2	NR
SR-1	09/05/91	329.78	17.17	312.61	35.2	NR	09/05/91	6.80	3680	69.6	NR
SR-1	12/13/91	329.78	17.37	312.41	35.2	NR	12/13/91	6.50	3460	65.2	NR
SR-1	03/11/92	329.78	16.39	313.39	34.9	ND	03/11/92	6.56	4890	68.9	80.
SR-1	06/24/92	329.78	17.42	312.36	35.1	ND	06/15/92	6.78	5220	67.2	>200
SR-2	06/26/91	328.35	15.08	313.27	35.1	NR	06/26/91	6.70	4430	66.6	NR
SR-2	09/05/91	328.35	15.52	312.83	35.2	NR	09/05/91	6.32	3370	67.6	NR
SR-2	12/13/91	328.35	15.27	313.08	35.2	NR	12/13/91	7.50	3070	65.5	NR
SR-2	03/11/92	328.35	15.02	313.33	35.0	ND	03/11/92	7.51	4700	68.3	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-3	06/26/91	329.11	15.23	313.88	34.9	NR	06/26/91	6.77	4230	69.2	NR
SR-3	09/05/91	329.11	15.60	313.51	35.1	NR	09/05/91	6.23	3590	68.7	NR
SR-3	12/13/91	329.11	15.80	313.31	35.0	NR	12/13/91	6.50	3140	66.8	NR
SR-3	03/11/92	329.11	14.85	314.26	34.8	ND	03/11/92	6.51	4350	67.8	>200
SR-3	06/24/92	329.11	15.78	313.33	35.1	ND	06/16/92	6.24	3400	73.3	>200

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 #: 204-6138-0501

Date: 07/17/92
Project Number: 067-26.01

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-2	06/26/91	0.05&	0.0063	<0.0005	0.0033	0.0019
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-3	06/26/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
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
SD-3	06/15/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
S-4	06/26/91	0.22	0.014	<0.0005	0.034	0.017
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	1.6	0.023	0.0012	0.012	0.02
S-4	06/16/92	0.48	0.048	<0.001	0.095	0.022
S-5	06/26/91	1.3	0.25	0.082	0.12	0.16
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

TPH-g = total petroleum hydrocarbons as gasoline
& = Compounds detected within the gasoline range are not characteristic of the standard gasoline chromatographic pattern

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: 07/17/92
Project Number: 067-26.01

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	06/26/91	0.12&	0.0038	0.0008	<0.0005	0.0017
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-7	06/26/91	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
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-8	06/26/91	<0.05	<0.0005	<0.0005	<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-9	06/26/91	<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
SD-9	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003

TPH-g = total petroleum hydrocarbons as gasoline
& = Compounds detected within the gasoline range are not characteristic of the standard gasoline chromatographic pattern

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: 07/17/92
Project Number: 067-26.01

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	06/26/91	0.05	0.0018	0.0058	0.0019	0.013
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
SR-1	06/26/91	<0.05	0.0050	<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-2	06/26/91	<0.05	0.0006	<0.0005	0.0017	<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-3	06/26/91	0.24	0.048	0.0042	0.015	0.020
SR-3	09/05/91	0.16	0.019	<0.0005	0.006	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
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)

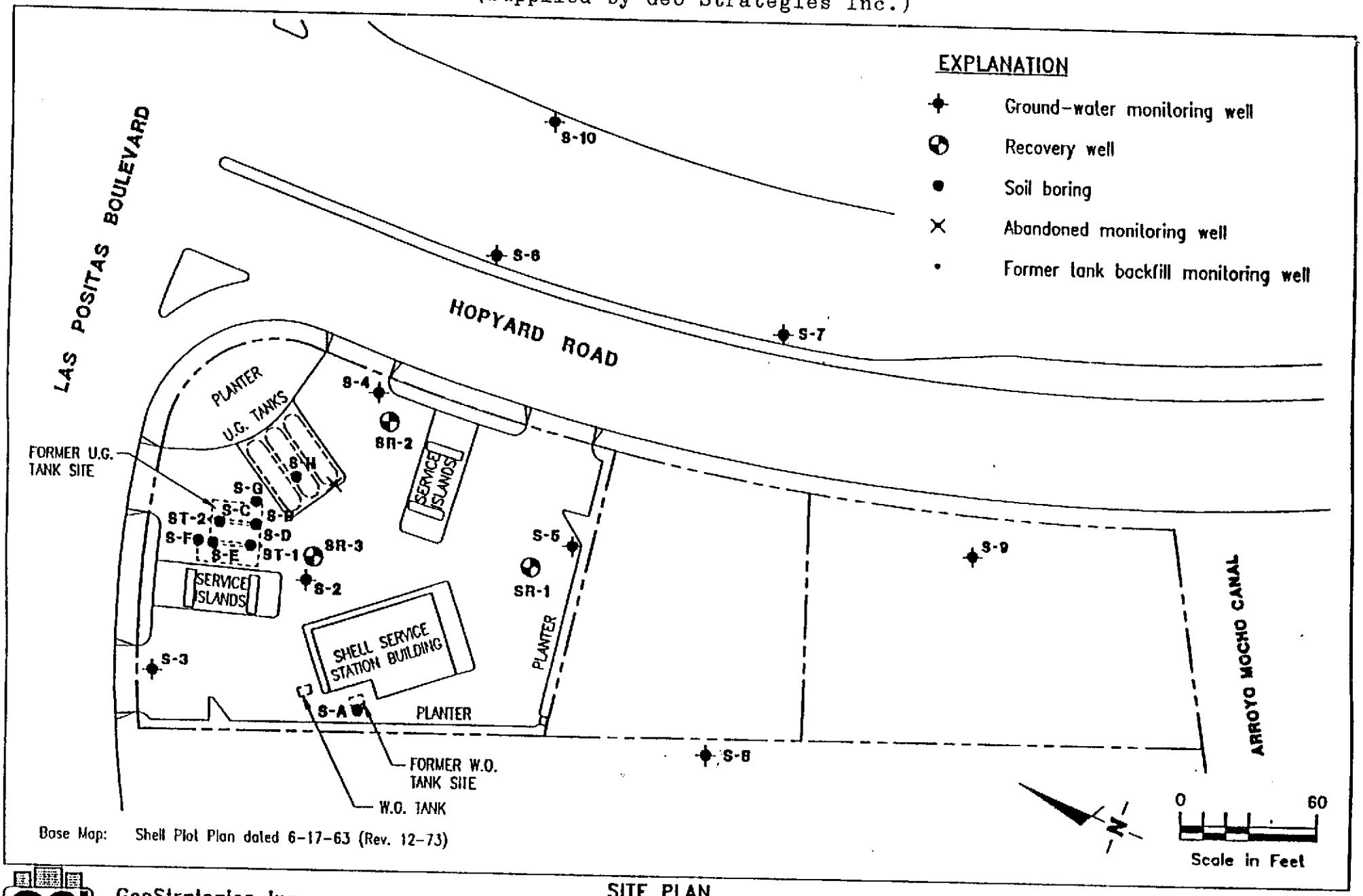
Shell Station: 3790 Hopyard Road
Pleasanton, California
WIC #: 204-6138-0501

Date: 07/17/92
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)
TB	03/11/92	<0.03	<0.0003	<0.0003	<0.0003	<0.0003
TB	06/16/92	<0.05	<0.0005	<0.0005	<0.0005	<0.0005

TPH-g = total petroleum hydrocarbons as gasoline

Figure 1
(Supplied by Geo Strategies Inc.)



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

GSI GeoStrategies Inc.

SITE PLAN
Shell Service Station
3790 Hopyard Road
Pleasanton, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
763201-11	EFS	11/91	

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 # : 9206261
Date Received : 06/17/92
Project ID : G67-26.01
Purchase Order: MOH-B813

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

ANAMETRIX ID	CLIENT SAMPLE ID
9206261- 1	S-2
9206261- 2	SR-3
9206261- 3	S-4
9206261- 4	S-5
9206261- 5	TB-1
9206261- 6	SF-3
9206261- 7	SD-3
9206261- 8	S-3
9206261- 9	S-7
9206261-10	S-8
9206261-11	S-9
9206261-12	S-10
9206261-13	SR-2
9206261-14	S-6
9206261-15	SR-1

This report consists of 10 pages not including the cover letter, and is organized in sections according to the specific Anametrix 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 Anametrix 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.

Anametrix 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 Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

7-06-92
Date

EMCON ASSOCIATES

JUL 0 8 1992

RECEIVED

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

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

Workorder # : 9206261
Date Received : 06/17/92
Project ID : G67-26.01
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9206261- 1	S-2	WATER	06/17/92	TPHg/BTEX
9206261- 2	SR-3	WATER	06/17/92	TPHg/BTEX
9206261- 3	S-4	WATER	06/17/92	TPHg/BTEX
9206261- 4	S-5	WATER	06/17/92	TPHg/BTEX
9206261- 5	TB-1	WATER	06/17/92	TPHg/BTEX
9206261- 6	SF-3	WATER	06/17/92	TPHg/BTEX
9206261- 7	SD-3	WATER	06/17/92	TPHg/BTEX
9206261- 8	S-3	WATER	06/17/92	TPHg/BTEX
9206261- 9	S-7	WATER	06/17/92	TPHg/BTEX
9206261-10	S-8	WATER	06/17/92	TPHg/BTEX
9206261-11	S-9	WATER	06/17/92	TPHg/BTEX
9206261-12	S-10	WATER	06/17/92	TPHg/BTEX
9206261-13	SR-2	WATER	06/17/92	TPHg/BTEX
9206261-14	S-6	WATER	06/17/92	TPHg/BTEX
9206261-15	SR-1	WATER	06/17/92	TPHg/BTEX

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

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

Workorder # : 9206261
Date Received : 06/17/92
Project ID : G67-26.01
Purchase Order: MOH-B813
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Baumer 7/1/92
Department Supervisor Date

Reggie Davison 7/2/92
Chemist Date

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

Anametrix W.O.: 9206261
Matrix : WATER
Date Sampled : 06/17/92

Project Number : G67-26.01
Date Released : 07/01/92

COMPOUNDS	Reporting Limit (mg/L)	Sample I.D.# S-2 -01	Sample I.D.# SR-3 -02	Sample I.D.# S-4 -03	Sample I.D.# S-5 -04	Sample I.D.# TB-1 -05
Benzene	0.0005	0.0009	0.055	0.048	0.38	ND
Toluene	0.0005	ND	0.0021	ND	0.052	ND
Ethylbenzene	0.0005	ND	0.028	0.095	0.12	ND
Total Xylenes	0.0005	ND	0.033	0.022	0.18	ND
TPH as Gasoline	0.050	ND	0.60	0.48	1.8	ND
% Surrogate Recovery		106%	112%	112%	96%	100%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		06/25/92	06/26/92	06/26/92	06/26/92	06/25/92
RLMF		1	2	2	5	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.

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

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

Steve Jones 7/1/92
Analyst Date

Cheryl Bachman 7/2/92
Supervisor Date

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

Anametrix W.O.: 9206261
Matrix : WATER
Date Sampled : 06/17/92

Project Number : G67-26.01
Date Released : 07/01/92

COMPOUNDS	Reporting Limit (mg/L)	Sample I.D.# SF-3 -06	Sample I.D.# SD-3 -07	Sample I.D.# S-3 -08	Sample I.D.# S-7 -09	Sample I.D.# S-8 -10
Benzene	0.0005	ND	ND	ND	ND	0.0014
Toluene	0.0005	ND	ND	ND	ND	0.0019
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		102%	101%	109%	119%	95%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		06/25/92	06/25/92	06/25/92	06/25/92	06/25/92
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.

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

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

Reggie Davisson 7/2/92
Analyst Date

Cheryl Balmer 7/1/92
Supervisor Date

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

Anametrix W.O.: 9206261
Matrix : WATER
Date Sampled : 06/17/92

Project Number : G67-26.01
Date Released : 07/01/92

COMPOUNDS	Reporting Limit (mg/L)	Sample I.D.# S-9 -11	Sample I.D.# S-10 -12	Sample I.D.# SR-2 -13	Sample I.D.# S-6 -14	Sample I.D.# SR-1 -15
Benzene	0.0005	ND	ND	0.0060	ND	ND
Toluene	0.0005	ND	ND	0.0010	ND	ND
Ethylbenzene	0.0005	ND	ND	0.0007	ND	ND
Total Xylenes	0.0005	ND	ND	0.0021	ND	ND
TPH as Gasoline	0.050	ND	ND	0.12	0.17	ND
% Surrogate Recovery		106%	115%	112%	100%	115%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		06/25/92	06/25/92	06/25/92	06/25/92	06/25/92
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.

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

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

Reggie Davisson 7/2/92
Analyst Date

Cheryl Balmer 7/1/92
Supervisor Date

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

Anametrix W.O.: 9206261
Matrix : WATER
Date Sampled : N/A

Project Number : G67-26.01
Date Released : 07/01/92

COMPOUNDS	Reporting Limit (mg/L)	Sample I.D.# BU2501E2 BLANK	Sample I.D.# BU2601E2 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		105%	101%
Instrument I.D.		HP4	HP4
Date Analyzed		06/25/92	06/25/92
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.

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

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

Reggie Davison 7/2/92
Analyst Date

Cheryl Balmer 7/1/92
Supervisor Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID

Sample I.D. : G67-26.01 SF-3
Matrix : WATER
Date Sampled : 06/17/92
Date Analyzed : 06/21/92

Anametrix I.D. : 9206261-06
Analyst : JP
Supervisor : CW
Date Released : 07/01/92
Instrument ID : HP4

COMPOUND	SPIKE AMT. (PPM)	MS (PPM)	%REC MS	MSD (PPM)	%REC MSD	RPD	%REC LIMITS
Gasoline	1.0	0.93	93%	1.0	99%	6%	48-145
P-BFB			107%		113%		53-147

* Limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID

Sample I.D. : G67-26.01 SR-2
Matrix : WATER
Date Sampled : 06/17/92
Date Analyzed : 06/21/92

Anametrix I.D. : 9206261-13
Analyst : RD
Supervisor : [illegible]
Date Released : 07/01/92
Instrument ID : HP4

COMPOUND	SPIKE AMT. (PPM)	MS (PPM)	%REC MS	MSD (PPM)	%REC MSD	RPD	%REC LIMITS
Gasoline	1.0	1.1	110%	1.2	120%	9%	48-145
P-BFB			104%		105%		53-147

* Limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID

Sample I.D. : MU2501E2
Matrix : WATER
Date Sampled : N/A
Date Analyzed : 06/25/92

Anametrix I.D. : LCS0625A
Analyst : RD
Supervisor : [illegible]
Date Released : 07/01/92
Instrument ID : HP4

COMPOUND	SPIKE AMT. (PPM)	LCS (PPM)	%REC LCS	%REC LIMITS
Gasoline	1.0	0.87	87%	48-145
P-BFB			120%	53-147

* Limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID

Sample I.D.	: MU2502E2	Anametrix I.D.	: LCS0625B
Matrix	: WATER	Analyst	: ED
Date Sampled	: N/A	Supervisor	: [illegible]
Date Analyzed	: 06/25/92	Date Released	: 07/01/92
		Instrument ID	: HP4

COMPOUND	SPIKE AMT. (PPM)	LCS (PPM)	%REC LCS	%REC LIMITS
Gasoline	1.0	0.86	86%	48-145
P-BFB			95%	53-147

* Limits established by Anametrix, Inc.

SHELL ENVIRONMENTAL ENGINEERING - WEST 9206261 **CHAIN OF CUSTODY RECORD** Date: 6/17

Serial No.: 412 09:50 (18) Page 1 of 2

Site Address: 3790 Hopyard Road Pleasanton CA

WIC#: 204-6138-0501

Shell Engineer: Kurt Miller — Phone No. (510) — Fax #: 685-3853

Consultant Name & Address: EMCON Assoc. 1938 Junction Ave. San Jose, CA 95131

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

Comments: 3-VOAs (HCl) for g, BTEX

Sampled By: Kevin Reichelderfer

Printed Name: KEVIN REICHELDERFER

Analysis Required

LAB: Anametrix

CHECK ONE (1) BOX ONLY	CT/DT
Quarterly Monitoring	X 5461
Site Investigation	5441
Soil for disposal	5442
Water for disposal	5443
Air Sample- Sys O&M	5452
Water Sample - Sys O&M	5453
Other	

TURN AROUND: 24 hours [ ] 48 hours [ ] 15 days X (No) Other [ ] NOTE: Notify L soon as possible 24/48 hrs. TAT.

Sample ID	Date	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	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION COMMENTS
(8) S-3			X		3	X		X			40 ml	HCl	No		
(9) S-7			↓		3	X		X			↓	↓	↓		
(10) S-8					3	X		X							
(11) S-9					3	X		X							
(12) S-10					3	X		X							
(13) SR-2					3	X		X							
(14) S-6					3	X		X							
(15) SR-1			↓		3	X		X			↓	↓	↓		

Relinquished By (signature): Kevin Reichelderfer — Printed name: KEVIN REICHELDERFER — Date: 6-17-92 — Time: 0842

Relinquished By (signature): — Printed name: — Date: — Time:

Relinquished By (signature): — Printed name: — Date: — Time:

Received (signature): Maria Barajas — Printed name: Maria Barajas — Date: 6/17 — Time: 0842

Received (signature): — Printed name: — Date: — Time:

Received (signature): — Printed name: — Date: — Time:

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

Last Revision Date: 10/15/91

SHELL ENVIRONMENTAL ENGINEERING - WEST | 92ae261 | CHAIN OF CUSTODY RECORD

Serial No.: 412 09:50 MB (18) | Date: | Page 2 of 2

Site Address: 3790 Hopyard Road, Pleasanton, CA

WIC#: 204-6138-0501

Shell Engineer: Kurt Miller | **Phone No.** (510) | **Fax #:** 685-3853

Consultant Name & Address: EMCON Assoc. | 1938 Junction Ave. San Jose, CA 95131

Consultant Contact: David Larsen | **Phone No.** (408) | **Fax #:** 453-2269

Comments: 3-VOAs (HCl) for BTEX

Sampled By: Kevin Reichelderfer

Printed Name: KEVIN REICHELDERFER

LAB: Anametrix

CHECK ONE (1) BOX ONLY

		CT/DT
Quarterly Monitoring	X	5461
Site Investigation	[ ]	5441
Soil for disposal	[ ]	5442
Water for disposal	[ ]	5443
Air Sample- Sys O&M	[ ]	5452
Water Sample - Sys O&M	[ ]	5453
Other	[ ]	

TURN AROUND

24 hours [ ]
48 hours [ ]
15 days X
Other [ ]
NOTE: Notify L... soon as possible ... 24/48 hrs. TAT.

Analysis Required

Sample ID	Date	Soil	Water	Air	No. of cont.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Container Size	Preservation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION COMMENTS
1) S-2			X		3	X		X			40 ml	HCl	No		
2) SR-3					3	X		X							
3) S-4					3	X		X							
4) S-5					3	X		X							
5) TB-1					3	X		X							
6) SF-3					3	X		X							
7) SD-3					3	X		X							

Relinquished By (signature): Kevin Reichelderfer | **Printed name:** KEVIN REICHELDERFER | **Date:** 6-17-92 | **Time:** 0842 | **Received (signature):** Maria Barajas | **Printed name:** Maria Barajas | **Date:** 6/17 | **Time:** 08...

Relinquished By (signature): | **Printed name:** | **Date:** | **Time:** | **Received (signature):** | **Printed name:** | **Date:** | **Time:**

Relinquished By (signature): | **Printed name:** | **Date:** | **Time:** | **Received (signature):** | **Printed name:** | **Date:** | **Time:**

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

Last Revision Date: 10/15/91