EnviroNet
CONSULTING

October 9, 1996
Project Number 6142.2

Ms. Eva Chu
Hazardous Materials Specialist
Alameda County Environmental Health Department
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: September 1996 Quarterly Groundwater Monitoring Report, 6085 Scarlett Court, Dublin, California.

Dear Ms. Chu:

This report presents the September 1996 quarterly groundwater monitoring report for the 6085 Scarlett Court site, in Dublin, California. The quarterly monitoring was requested by the Alameda County Environmental Health Department (ACEHD) and is the initial groundwater monitoring to be performed onsite by EnviroNet Consulting (EnviroNet).

BACKGROUND

The following background section is based on information presented in Results of Soil and Ground-Water Investigations and Remedial Activities, 6085 Scarlett Court, Dublin, California, by Levine Fricke, of Pleasanton, California, dated July 18, 1995.

The site was formerly owned by Aggregate Systems, Inc. and was used for rock, sand and concrete storage and distribution. An abandoned single story building remains onsite. Three 500 to 1,000 gallon underground storage tanks (USTs) and one dispenser island were located onsite. The three USTs were removed from the site in June 1990 by Clayton Environmental Consultants of Pleasanton, California, under the supervision of the ACDEH. During the UST removal numerous small holes were reported in the USTs and soil staining was observed in the excavation. Soil samples collected following the UST removals indicated up to 290 parts per million (ppm) of total petroleum hydrocarbons as gasoline (TPH-g) and up to 23 ppm of xylenes.

A single groundwater monitoring well (MW-1) was installed southwest of the UST excavation in November 1993 by H_2OGEOL, Inc., of Livermore, California. Groundwater samples collected from MW-1 in April 1994 contained 91 ppm TPH-g and BTEX components (benzene, toluene, ethylbenzene, and xylenes) up to 23 ppm benzene.

In 1994 Levine Fricke conducted a Phase II limited investigation onsite, which consisted of hand auger soil sampling and groundwater sampling. Following these investigations, Levine Fricke personnel supervised the excavation of approximately 1,000 cubic yards of petroleum impacted soil and approximately 400 cubic yards of clean overburden. During the excavation well MW-1 was removed. Replacement well MW-1R was drilled on January 30, 1995. The location of MW-1R was approved by the ACDEH.

WATER LEVEL MEASUREMENTS

On September 10, 1996 a measurement of the depth to groundwater was collected from monitoring well MW-1R. The groundwater elevation for MW-1R was calculated from this data and is presented in Table 1. The casing elevation and groundwater elevation are reported in feet relative to Mean Sea Level.

GROUNDWATER SAMPLING

Following the depth to groundwater measurement the groundwater was checked for the presence of floating petroleum hydrocarbons, or free product, using petroleum hydrocarbon-detecting paste on a steel tape. No free product was observed. Before sampling, the well was purged of an excess of three well volumes of groundwater until the pH, temperature, and conductivity readings of the purged water had stabilized. The groundwater sample was collected using a disposable bailer and then transferred to an amber glass one-liter bottle and 40 milliliter VOA vials. The water sample was labeled, stored under refrigerated conditions, and transported to Sparger Technology, Inc. (Sparger) in Sacramento, California, under Chain-of-Custody documentation. Information collected in the field during the sampling was recorded on a Groundwater Sampling Form, a copy of which is enclosed.

LABORATORY ANALYSES

The groundwater sample was analyzed by Sparger for total petroleum hydrocarbons (TPH) as gasoline (g) and for benzene, toluene, ethylbenzene, and toluene (BTEX) using EPA Method 8015/8020 modified and for TPH as diesel (d) and TPH-motor oil (mo) using EPA Method 8015.

ANALYTICAL RESULTS

TPH-g was detected in the sample at 0.081 milligrams per liter (mg/L). Benzene was detected at 0.0012 mg/L; all of the other BTEX components were not detected (ND). TPH-g and TPH-mo were also ND. The analytical results are summarized in Table 2. Copies of the Sparger report and the Chain of Custody document are enclosed.

DISCUSSION

The groundwater flow direction and gradient cannot be determined with the groundwater elevation data from only one monitoring well. The July 18, 1995, Levine Fricke report indicates that the historic groundwater flow at the adjacent site to the south has been toward the south to southwest. Based on the groundwater flow direction at the nearby site, monitoring well MW-1R is generally down-gradient of the former UST location.

The analytical results indicate the detection of very low concentrations of TPH-g and benzene only.

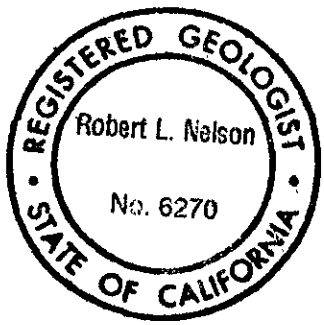
CLOSURE

In December, 1996, EnviroNet will conduct an additional quarterly monitoring event to confirm the presence and degree of contamination to the site's groundwater. We trust this report provides the information you require. Please call (707) 546-9461 if you have any questions or comments.

Sincerely,

Robert L. Nelson

Robert L. Nelson
Registered Geologist No. 6270



Enclosures: Plate 1: Site Location Map
Plate 2: Site Plan
September 26, 1996 Analytical Report by Sparger Technology, Inc.
Groundwater Sampling Form for Well MW-1R

DISTRIBUTION
Project Number 6142.2

Mr. Burt Hamrol
President
CSI/Customer Service
General Contracting, Inc.
525 York Street
San Francisco, California 94110

415 | 661-5738

mobile 415 | 559-0882

Table 1: Water Level Measurements

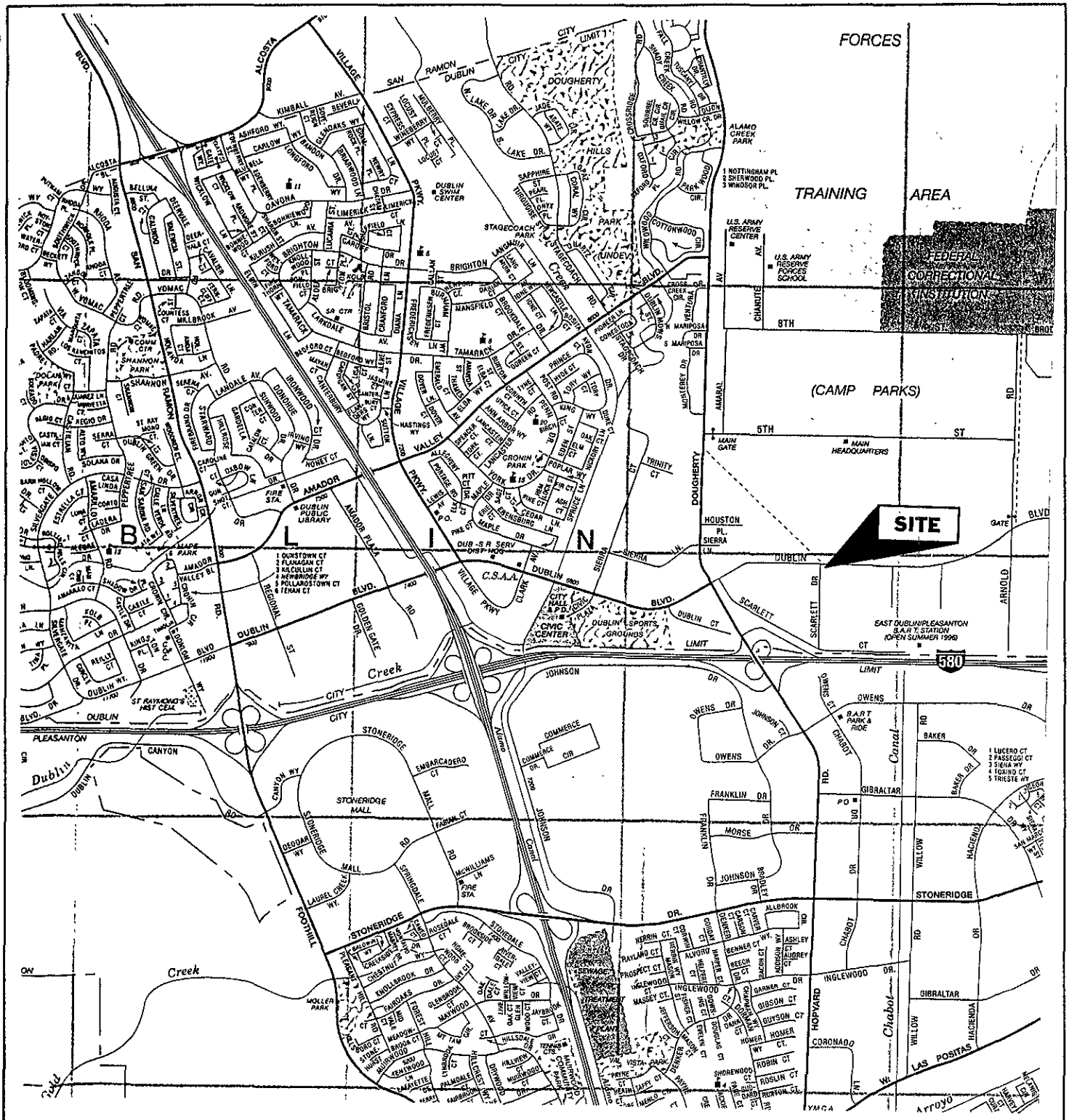
Well Number	Date of Water Level Measurement	Top of Casing Elevation*	Depth to Water in Feet	Ground Water Elevation*
MW-1R	09/10/96	330.01	6.61	323.4

* In feet above mean sea level.

Table 2: Groundwater Sampling Results

Well	Date	TPH-g	TPH-d	TPH-mo	B	T	E	X
		mg/L						
MW-1R	09/10/96	0.081	ND	ND	0.0012	ND	ND	ND

ND = not detected.



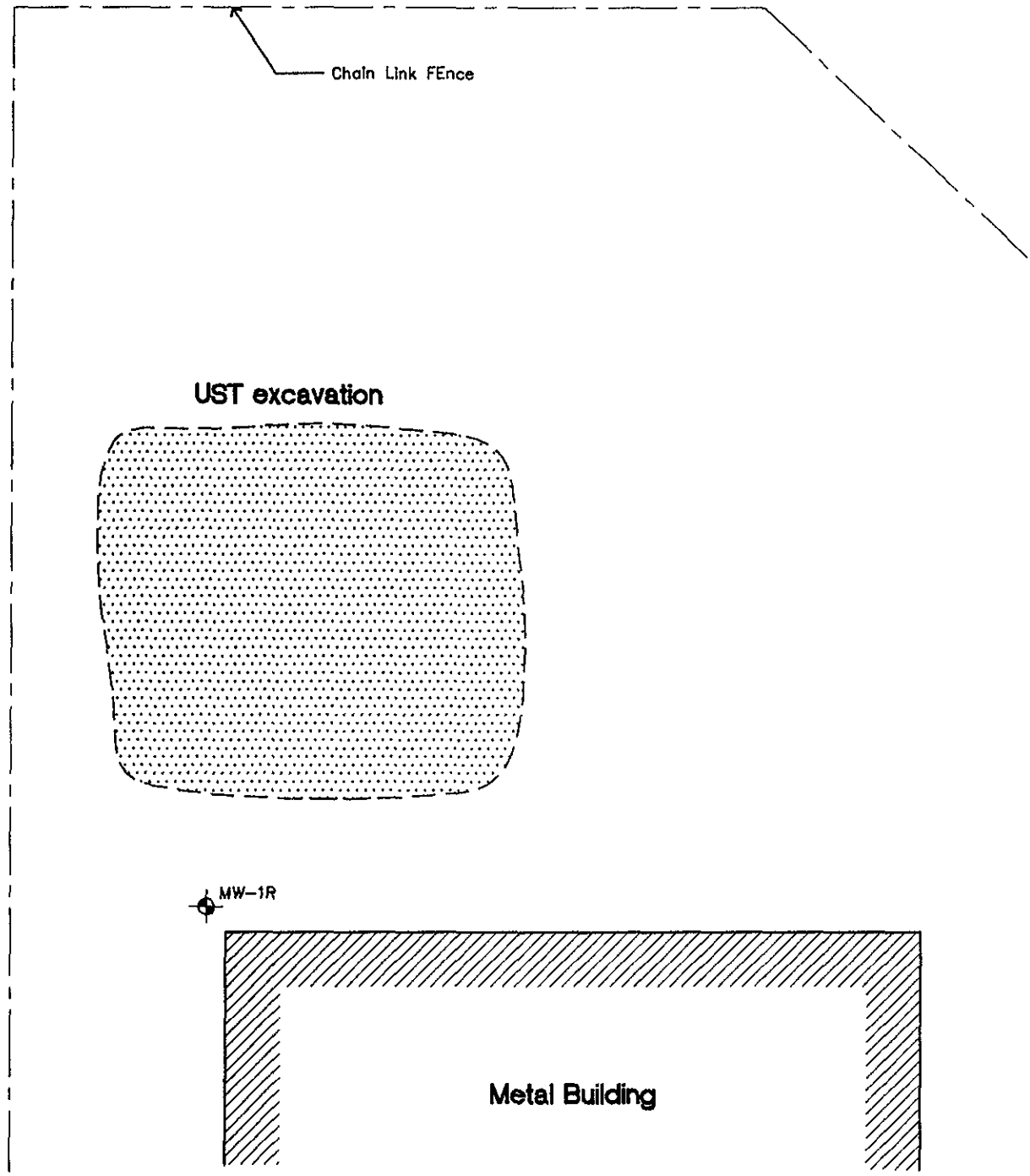
SITE LOCATION MAP

6085 Scarlet Court
Dublin, California

PLATE **1**

EnviroNet CONSULTING

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
WA	61422-1	GSJ	6142.2		10/8/96



LEGEND

Monitoring Well Location

Approximate Area of Excavation

0 15' 30'

Scale: 1" = 30'

NORTH

EnviroNet CONSULTING

SITE PLAN

6085 Scarlet Court
Dublin, California

PLATE 2

DRAWN BY:	DWG NAME:	APPROVED BY:	JOB NUMBER:	REVISIONS:	DATE:
W A	61422-2A	GSJ	6142.2		10/8/96

ENVIRONET CONSULTING
GROUNDWATER FIELD SAMPLING FORM

WELL INFORMATION

Project Number/Name: 6085 Scarlett / 6142.2	Well Number: MW-1 (R)
Project Location: 6085 Scarlett Court Dublin	Well Depth from TOC: 19.3
Date: 9-10-1996	Casing Diameter: 2
Start Time: Finish Time:	Product Thickness in Inches: 0
Recorded by: RLN	Water Level from TOC: 6.37 Time:
Sampled by: RLN	Screened Interval: Initial Well Depth:
Purge Time Start: 0805 Purge Time Stop: 0835	Well Elevation (TOC):
Pump Intake Setting: ☐ Near Bottom ☐ Near Top ☐ Other:	Well Type: ☒ Monitor ☐ Extraction ☐ Other:
Notes:	Well Material: ☒ PVC ☐ St. Steel ☐ Other:

WEATHER

Wind: Yes/No Sun: Yes/No Clouds: Yes/No Rain: Yes/No Fog: Yes/No	Precipitation in Last 5 Days: Zero

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING

(19.3 TD − 6.4 WL)(2 Dia. inches)² × 0.0408 = 2.1 gallons in one well volume

6.33 gallons in 3 well volumes	7.5 total gallons removed

FIELD MEASUREMENTS

Time	pH	EC	Temp ° F	Gallons	Appearance
0805	7.35	1590	72.9	0	clear
	7.30	1515	69.5	2	clear
	7.20	1700	68.9	5	cloudy
↓	7.20	1790	66.7	6½	cloudy
0835	7.30	1780	66.2	7½	cloudy
					0

Water Level After Purging:	80% of Original Water Level:
Water Level Before Sampling:	
APPEARANCE OF SAMPLE: cloudy with purging	Time: 0845

Bailer: Yes/No Disposable	Type:	GPM:
Pump: Yes/No	Type:	GPM:
Dedicated: Yes/No	Type	GPM:

DECONTAMINATION METHOD: Purge Pump; TSP Wash, Double Rinse; (Disposable Bailers)

SAMPLE ANALYSIS: SEE CHAIN-OF-CUSTODY

SIGNATURE: Robert L. Nelson

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

September 26, 1996

Invoice #: 6971
Project #: 6142.2
Project Name: 6085 Scarlett Court

Mr. Robert Nelson
EnviroNet Consulting
1070 Airport Blvd., Suite A
Santa Rosa, CA 95403

Mr. Robert Nelson,

Enclosed is the report for one (1) water sample. The sample was received at Sparger Technology Analytical Lab on September 10, 1996.

The sample was received in three (3) VOA's and one (1) 1L amber bottle. The sample was transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

I. Sample Description & Analysis Request
II. Quality Control Report
III. Analysis Results

No problems were encountered with the analysis of your samples.

If you require additional information please give us a call at (916) 362-8947.

Sincerely,

R. L. James
Principal Chemist

3050 Fite Circle, Suite 112 • Sacramento, California 95827 • (916) 362-8947 • FAX (916) 362-0947

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

Sample Description & Analysis Request

Laboratory ID			Sample ID	Analysis Description	Matrix
6971	001	A	MW-1	BTEX/TPHgas	W
6971	002	A	MW-1	TPHdiesel/motor oil	W

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Analytical Laboratory Division
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Scientific Division

II Quality Control

A. **Project Specific QC.** No project specific QC (i.e., spikes and/or duplicates) was requested.

B. **Method Blank Results.** A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

C. **Laboratory Control Spike.** A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.

D. **Matrix Spike Results.** A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{(\text{measured concentration}) \times 100}{(\text{actual concentration})}$$

III Analysis Results

Results are on the attached data sheets.

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

EPA Method 8020/8015
Modified Analysis Report

Attention:	Mr. Robert Nelson Environet Consulting 1070 Airport Blvd., Ste. A Santa Rosa, CA 95403	Date Sampled: Date Received: Date Analyzed: Invoice #:	Sep 10, 1996 Sep 10, 1996 Sep 13, 1996 6971
Project #:	6142.2	Project Name:	6085 Scarlett Court
Client ID:	MW-1	LAB ID:	6971-001A
Matrix:	Water	Dilution: 1:	1

Name	Amount	Detection Limit	Units
Benzene	1.2	0.5	ug/l
Toluene	ND	0.5	ug/l
Ethylbenzene	ND	0.5	ug/l
Xylenes	ND	0.5	ug/l
TPHgas	81	50	ug/l

Surrogate % Recovery of Trifluorotoluene = 87%

ppb = parts per billion = ug/l = micrograms per liter
ppm= parts per million = ug/ml = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

C. Chapman, GC Manager

Sep 20, 1996
Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No 1614)

8020001.XLS

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

EPA Method 8020
Modified Matrix Spike (MS) & Matrix Spike Duplicate (MSD)
BTEX Analysis Report

Attention:	Mr. Robert Nelson Environet Consulting 1070 Airport Blvd., Ste. A Santa Rosa, CA 95403	Date Sampled: Date Received: Date Analyzed: Invoice #:	Sep 10, 1996 Sep 10, 1996 Sep 13, 1996 6971
Project ID:	6142.2	Project Name:	6085 Scarlett Court
Client ID:	MS/MSD (Batch)	LAB ID:	6964-020MS 6964-020MSD
Matrix:	Water	Dilution:	

Name	Spike Added	Sample Conc.	MS Result	MSD Result	Units	MS % Recovery	MSD % Recovery	% RPD Recovery	QC Limits RPD	QC Limits %Rec
Benzene	30	ND	19	29	ug/l	63%	97%	42%	20	65-135
Toluene	30	ND	31	31	ug/l	103%	103%	0%	20	65-135
Ethylbenzene	30	ND	31	31	ug/l	103%	103%	0%	20	65-135
m,p-Xylenes	60	ND	64	64	ug/l	107%	107%	0%	20	65-135

Surrogate % Recovery of Trifluorotoluene = 89% MS 87% MSD

ppb = parts per billion = ug/l = micrograms per liter
ppm= parts per million = ug/ml = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

C. Chapman, GC Supervisor

Sep 20, 1996
Date Reported

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(Certification No 1614)

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Sparger Technology, Inc.
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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

EPA Method 8020
Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD) BTEX Analysis Report

Attention:	Mr. Robert Nelson Environet Consulting 1070 Airport Blvd., Ste. A Santa Rosa, CA 95403	Date Sampled: Date Received: Date Analyzed: Invoice #:	Sep 10, 1996 Sep 10, 1996 Sep 13, 1996 6971
Project ID:	6142.2	Project Name:	6085 Scarlett Court
Client ID:	LCS/LCSD	LAB ID:	6971-LCS 6971-LCSD
Matrix:	Water	Dilution:	

Name	Spike Added	Sample Conc.	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery	QC Limits RPD	QC Limits %Rec
Benzene	30	ND	30	28	ug/l	100%	93%	7%	20	65-135
Toluene	30	ND	31	28	ug/l	103%	93%	10%	20	65-135
Ethylbenzene	30	ND	31	28	ug/l	103%	93%	10%	20	65-135
m,p-Xylenes	60	ND	64	56	ug/l	107%	93%	13%	20	65-135

Surrogate % Recovery of Trifluorotoluene = 86% LCS 83% LCSD

ppb = parts per billion = ug/l = micrograms per liter
ppm= parts per million = ug/ml = micrograms per milliliter
ND = Not Detected Compound(s) may be present at concentrations below the detection limit.

C. Chapman, GC Supervisor

Sep 20, 1996
Date Reported

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

EPA Method 8015

Modified Analysis Report

Attention:	Mr. Robert Nelson Environet Consulting 1070 Airport Blvd., Ste. A Santa Rosa, CA 95403	Date Sampled: Date Received: Date Analyzed: Invoice #:	Sep 10, 1996 Sep 10, 1996 Sep 15, 1996 6971
Project #:	6142.2	Project Name:	6085 Scarlett Court
Client ID:	MW-1	LAB ID:	6971-002A
Matrix:	Water	Dilution: 1 :	1

Name	Amount	Detection Limit	Units
TPHdiesel	ND	50	ug/l
TPHmotor oil	ND	50	ug/l

ppb = parts per billion = ug/l = micrograms per liter
ppm = parts per million = ug/ml = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

R. L. James, Principal Chemist

Sep 20, 1996
Date Reported

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DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
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Scientific Division

EPA Method 8015
Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD)
TPHdiesel Analysis Report

Attention:	Mr. Robert Nelson Environet Consulting 1070 Airport Blvd., Ste. A Santa Rosa, CA 95403	Date Sampled: Date Received: Date Analyzed: Invoice #:	Sep 10, 1996 Sep 10, 1996 Sep 15, 1996 6971
Project # :	6142.2	Project Name:	6085 Scarlett Court
Client ID:	LCS/LCSD	LAB ID:	6971-LCS 6971-LCSD
Matrix:	Water	Dilution:	

Name	Conc. Spike Added	Sample Result	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
TPHdiesel	200	ND	170	160	ug/l	85%	80%	6%

ppb = parts per billion = ug/l = micrograms per liter
ppm= parts per million = ug/ml = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Sep 20, 1996
Date Reported

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(Certification No 1614)

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EnviroNet CONSULTING

3070 Airport Boulevard
Santa Rosa, CA 95403
Phone (707) 546-9461
Fax (707) 544-5769

Chain-of-Custody Record
Analytical Request

697

EnviroNet Project Manager: Robert L. Nelson

Mail Invoice To: EnviroNet

Project Name: 6085 Scarlett Court

Project Address: 6085 Scarlett Ct. Dublin

Project # / Billing Reference: 6142.2

Condition of Sample:
Bottles Intact? Yes / No
Field Filtered? Yes / No

Requested Turnaround Time: Standard

Sample Remainder Disposal:
Return Sample Remainder to Client via: _____
I Request Lab to Dispose of All Sample Remainders XX

COC Seals Present and Intact? Yes / No

Volatiles Free of Headspace? Yes / No

Temperature Upon Receipt: _____

Sampled By (Print): Robert L. Nelson

Sampler's Signature: Robert L. Nelson Date Sampled: 9-10-1996

Item #	Sample Description	Time	Matrix	Total # of Containers	Grab	Composite	PRESERVATIVES – Water: Unpreserved (1 liter)	H2SO4 (1 liter)	HNO3 (250 ml)	HCl (VOA)	Unpreserved (VOA)	Analyses Requested: TPH D / MO	TPH-g & BTEX	8010	8240	8270	Cd, Cr, Pb, Zn, Ni	TOG 5520	Remarks
1	MW-1	0845	Water	4			1			3		X	X						
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Shipment Method Out / Date Returned / Date	Item #	Relinquished By / Affiliation	Accepted By / Affiliation	Date	Time
		Robert L. Nelson / EnviroNet		9/10/96	16:35

Additional Comments:

Detection Limits for Soil:
TPH Motor Oil, Oil & Grease, Total Oil & Grease: 50 ppm