

# BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE  
SAN JOSE, CA 95133  
(408) 995-5535  
FAX (408) 293-8773

June 1, 1995

PES Environmental, Inc.  
1682 Novato Blvd., Suite 100  
Novato, CA 94947

ATTN: Jay Jasperse

Site:  
Dublin Rock & Ready Mix  
6393 Scarlett Court  
Dublin, California

Date:  
May 22, 1995

## GROUNDWATER SAMPLING REPORT 950522-V-1

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Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results, or become involved with the marketing or installation of remedial systems.

This report deals with the groundwater well sampling performed by our firm in response to your request. Data collected in the course of our work at the site are presented in the TABLE OF WELL MONITORING DATA. This information was collected during our inspection, well evacuation and sample collection. Measurements include the total depth of the well and the depth to water. Water surfaces were further inspected for the presence of immiscibles. A series of electrical conductivity, pH, and temperature readings were obtained during well evacuation and at the time of sample collection.

## STANDARD PRACTICES

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### Evacuation and Sampling Equipment

As shown in the TABLE OF WELL MONITORING DATA, the wells at this site were evacuated according to a protocol requirement for the removal of three case volumes of water before sampling. The wells were evacuated using bailers.

Samples were collected using bailers.

**Bailers:** A bailer, in its simplest form, is a hollow tube which has been fitted with a check valve at the lower end. The device can be lowered into a well by means of a cord. When the bailer enters the water, the check valve opens and liquid flows into the interior of the bailer. The bottom check valve prevents water from escaping when the bailer is drawn up and out of the well.

Two types of bailers are used in groundwater wells at sites where fuel hydrocarbons are of concern. The first type of bailer is made of a clear material such as acrylic plastic and is used to obtain a sample of the surface and the near surface liquids, in order to detect the presence of visible or measurable fuel hydrocarbon floating on the surface. The second type of bailer is made of Teflon or stainless steel, and is used as an evacuation and/or sampling device.

Bailers are inexpensive and relatively easy to clean. Because they are manually operated, variations in operator technique may have a greater influence than would be found with more automated sampling equipment. Also, where fuel hydrocarbons are involved, the bailer may include near surface contaminants that are not representative of water deeper in the well.

### Decontamination

All apparatus is brought to the site in clean and serviceable condition. The equipment is decontaminated after each use and before leaving the site.

### Effluent Materials

The evacuation process creates a volume of effluent water which must be contained. Blaine Tech Services, Inc. will place this water in appropriate containers of the client's choice or bring new 55 gallon DOT 17 E drums to the site, which are appropriate for the containment of the effluent materials. The determination of how to properly dispose of the effluent water must usually await the results of laboratory analyses of the sample collected from the groundwater

well. If that sample does not establish whether or not the effluent water is contaminated, or if effluent from more than one source has been combined in the same container, it may be necessary to conduct additional analyses on the effluent material.

### **Sampling Methodology**

Samples were obtained by standardized sampling procedures that follow an evacuation and sample collection protocol. The sampling methodology conforms to both State and Regional Water Quality Control Board standards and specifically adheres to EPA requirements for apparatus, sample containers and sample handling as specified in publication SW 846 and T.E.G.D. which is published separately.

### **Sample Containers**

Sample containers are supplied by the laboratory performing the analyses.

### **Sample Handling Procedures**

Following collection, samples are promptly placed in an ice chest containing deionized ice or an inert ice substitute such as Blue Ice or Super Ice. The samples are maintained in either an ice chest or a refrigerator until delivered into the custody of the laboratory.

### **Sample Designations**

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days, as jobs and projects often do.

### **Chain of Custody**

Samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under our standard chain of custody. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date and signature of person accepting custody of the samples).

## Hazardous Materials Testing Laboratory

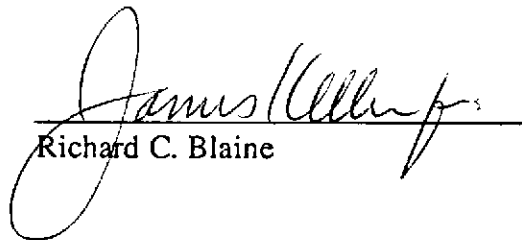
The samples obtained at this site were delivered to American Environmental Network in Pleasant Hill, California. AEN is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory, and is listed as DOHS HMTL #1172.

### Personnel

All Blaine Tech Services, Inc. personnel receive 29 CFR 1910.120(e)(2) training as soon after being hired as is practical. In addition, many of our personnel have additional certifications that include specialized training in level B supplied air apparatus and the supervision of employees working on hazardous materials sites. Employees are not sent to a site unless we are confident they can adhere to any site safety provisions in force at the site and unless we know that they can follow the written provisions of an SSP and the verbal directions of an SSO.

In general, employees sent to a site to perform groundwater well sampling will assume an OSHA level D (wet) environment exists unless otherwise informed. The use of gloves and double glove protocols protects both our employees and the integrity of the samples being collected. Additional protective gear and procedures for higher OSHA levels of protection are available.

Please call if we can be of any further assistance.

  
Richard C. Blaine

RCB/lp

attachments: table of well monitoring data  
chain of custody

## TABLE OF WELL MONITORING DATA

Well I.D.	MW-1			MW-2			MW-3			MW-4		
Date Sampled	5/22/95			5/22/95			5/22/95			5/22/95		
Well Diameter (in.)	2			2			2			2		
Total Well Depth (ft.)	19.34			19.85			18.68			18.75		
Depth To Water (ft.)	2.2			2.6			2.73			3.07		
Free Product (in.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
1 Case Volume (gal.)	2.74			2.76			2.55			2.5		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	9.0			9.0			8.0			7.5		
Purging Device	BAILER			BAILER			BAILER			BAILER		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	10:22	10:25	10:29	12:38	12:42	12:45	11:46	11:49	11:52	12:11	12:14	12:17
Temperature (Fahrenheit)	62.8	63.0	63.0	63.0	63.2	63.2	66.0	65.4	65.4	62.8	62.8	62.8
pH	6.0	6.4	6.4	6.8	6.8	6.8	7.4	7.2	7.2	7.4	7.0	7.0
Conductivity (micromhos/cm)	4000	4000	4000	2600	2600	2600	3800	3800	3800	3000	3000	3000
Nephelometric Turbidity Units	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
BTS Chain of Custody	950522-V-2			950522-V-2			950522-V-2			950522-V-2		
BTS Sample I.D.	MW-1			MW-2			MW-3			MW-4		
DOHS HMTL Laboratory	AEN			AEN			AEN			AEN		
Analysis	TPH (GAS), BTEX			TPH (GAS), BTEX			TPH (GAS), BTEX			TPH (GAS), BTEX		

## TABLE OF WELL MONITORING DATA

Well I.D.	MW-5			MW-6		
Date Sampled	5/22/95			5/22/95		
Well Diameter (in.)	2			2		
Total Well Depth (ft.)	9.97			9.8		
Depth To Water (ft.)	2.93			4.7		
Free Product (in.)	NONE			NONE		
Reason If Not Sampled	--			--		
1 Case Volume (gal.)	1.12			0.81		
Did Well Dewater?	NO			NO		
Gallons Actually Evacuated	4.0			3.0		
Purging Device	BAILER			BAILER		
Sampling Device	BAILER			BAILER		
Time	10:52	10:55	10:57	11:21	11:24	11:27
Temperature (Fahrenheit)	64.2	63.6	63.4	61.4	61.0	61.0
pH	6.6	6.8	6.8	7.4	7.2	7.2
Conductivity (micromhos/cm)	5200	5400	5400	3200	3200	3200
Nephelometric Turbidity Units	>200	>200	>200	>200	>200	>200
BTS Chain of Custody	950522-V-2			950522-V-2		
BTS Sample I.D.	MW-5			MW-6		
DOHS HMTL Laboratory	AEN			AEN		
Analysis	TPH (GAS), BTEX			TPH (GAS), BTEX		

# BLAINE TECH SERVICES INC

985 TIMOTHY DRIVE  
SAN JOSE, CA 95133  
(408) 995-5535  
FAX (408) 293-8773

## CONDUCT ANALYSIS TO DETECT

LAB

*AEN*

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWOCB REGION \_\_\_\_\_

CHAIN OF CUSTODY *950522-U-1*

CLIENT *PES Environmental*

SITE *Dublin Rocket Ready Mix*  
*6393 Scarlett Ct*  
*Dublin, CA*

C = COMPOSITE ALL CONTAINERS

*TPH/BTEX*

SPECIAL INSTRUCTIONS

*Invoice + Report to PES*  
*Att:*

SAMPLE I.D.	MATRIX		TOTAL	CONTAINERS	C = COMPOSITE ALL CONTAINERS	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
	S = SOIL	W = H <sub>2</sub> O							
<i>MW-1</i>	<i>W</i>	<i>W</i>	<i>3</i>	<i>WAS</i>	<i>✓</i>				
<i>MW-2</i>	<i>W</i>	<i>W</i>	<i>3</i>		<i>✓</i>				
<i>MW-3</i>	<i>W</i>	<i>W</i>	<i>3</i>		<i>✓</i>				
<i>MW-4</i>	<i>W</i>	<i>W</i>	<i>3</i>		<i>✓</i>				
<i>MW-5</i>	<i>W</i>	<i>W</i>	<i>3</i>		<i>✓</i>				
<i>MW-6</i>	<i>W</i>	<i>W</i>	<i>3</i>		<i>✓</i>				

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN	
	<i>5-22-95</i>	<i>1300</i>	<i>F.A. VAN DER BRUG</i>	<i>Standard TPH</i>	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<i>F.A. Van der Brug</i>	<i>5-23-95</i>	<i>1337</i>	<i>[Signature]</i>	<i>5-23-95</i>	<i>13:37</i>
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #		

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

PES ENVIRONMENTAL, INC.  
1682 NOVATO BLVD.  
SUITE 100  
NOVATO, CA 94947

ATTN: MARY WILLIAMS  
CLIENT PROJ. ID: 950522-V-1  
CLIENT PROJ. NAME: DUBLIN ROCK

REPORT DATE: 06/08/95

DATE(S) SAMPLED: 05/22/95

DATE RECEIVED: 05/23/95

AEN WORK ORDER: 9505333

### PROJECT SUMMARY:

On May 23, 1995, this laboratory received 6 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

ENVIRONMENTAL  
PROTECTION  
96 AUG 12 PM 3:11



PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-1  
 AEN LAB NO: 9505333-01  
 AEN WORK ORDER: 9505333  
 CLIENT PROJ. ID: 950522-V-1

DATE SAMPLED: 05/22/95  
 DATE RECEIVED: 05/23/95  
 REPORT DATE: 06/08/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
<b>BTEX &amp; Gasoline HCs</b>	<b>EPA 8020</b>				
Benzene	71-43-2	ND	0.5	ug/L	05/31/95
Toluene	108-88-3	ND	0.5	ug/L	05/31/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	05/31/95
Xylenes, Total	1330-20-7	ND	2	ug/L	05/31/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	05/31/95

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

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## PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-2  
 AEN LAB NO: 9505333-02  
 AEN WORK ORDER: 9505333  
 CLIENT PROJ. ID: 950522-V-1

DATE SAMPLED: 05/22/95  
 DATE RECEIVED: 05/23/95  
 REPORT DATE: 06/08/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	14,000 *	20	ug/L	05/31/95
Toluene	108-88-3	6,000 *	20	ug/L	05/31/95
Ethylbenzene	100-41-4	4,000 *	20	ug/L	05/31/95
Xylenes, Total	1330-20-7	16,000 *	80	ug/L	05/31/95
Purgeable HCs as Gasoline	5030/GCFID	82 *	2	mg/L	05/31/95

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-3  
 AEN LAB NO: 9505333-03  
 AEN WORK ORDER: 9505333  
 CLIENT PROJ. ID: 950522-V-1

DATE SAMPLED: 05/22/95  
 DATE RECEIVED: 05/23/95  
 REPORT DATE: 06/08/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	05/31/95
Toluene	108-88-3	ND	0.5	ug/L	05/31/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	05/31/95
Xylenes, Total	1330-20-7	ND	2	ug/L	05/31/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	05/31/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-4  
 AEN LAB NO: 9505333-04  
 AEN WORK ORDER: 9505333  
 CLIENT PROJ. ID: 950522-V-1

DATE SAMPLED: 05/22/95  
 DATE RECEIVED: 05/23/95  
 REPORT DATE: 06/08/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	60 *	0.5	ug/L	06/01/95
Toluene	108-88-3	1 *	0.5	ug/L	06/01/95
Ethylbenzene	100-41-4	12 *	0.5	ug/L	06/01/95
Xylenes, Total	1330-20-7	8.0 *	2	ug/L	06/01/95
Purgeable HCs as Gasoline	5030/GCFID	1.2 *	0.05	mg/L	06/01/95

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

ENVIRONMENTAL  
 PROTECTION  
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## PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-5  
 AEN LAB NO: 9505333-05  
 AEN WORK ORDER: 9505333  
 CLIENT PROJ. ID: 950522-V-1

DATE SAMPLED: 05/22/95  
 DATE RECEIVED: 05/23/95  
 REPORT DATE: 06/08/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/01/95
Toluene	108-88-3	ND	0.5	ug/L	06/01/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/01/95
Xylenes, Total	1330-20-7	ND	2	ug/L	06/01/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	06/01/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

PES ENVIRONMENTAL, INC.

SAMPLE ID: MW-6  
 AEN LAB NO: 9505333-06  
 AEN WORK ORDER: 9505333  
 CLIENT PROJ. ID: 950522-V-1

DATE SAMPLED: 05/22/95  
 DATE RECEIVED: 05/23/95  
 REPORT DATE: 06/08/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	06/01/95
Toluene	108-88-3	ND	0.5	ug/L	06/01/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	06/01/95
Xylenes, Total	1330-20-7	ND	2	ug/L	06/01/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	06/01/95

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9505333

CLIENT PROJECT ID: 950522-V-1

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

## QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9505333  
 INSTRUMENT: H  
 MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			Fluorobenzene	
05/31/95	MW-1	01	99	
05/31/95	MW-2	02	100	
05/31/95	MW-3	03	99	
06/01/95	MW-4	04	97	
06/01/95	MW-5	05	99	
06/01/95	MW-6	06	99	
QC Limits:			92-109	

DATE ANALYZED: 06/01/95  
 SAMPLE SPIKED: 9505277-01  
 INSTRUMENT: H

## Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	36.3	101	3	85-109	17
Toluene	103.0	101	3	87-111	16
HCs as Gasoline	1000	102	4	66-117	19

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

\*\*\* END OF REPORT \*\*\*



