

September 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:  
August 24, 1995

## **GROUNDWATER SAMPLING REPORT 950824-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

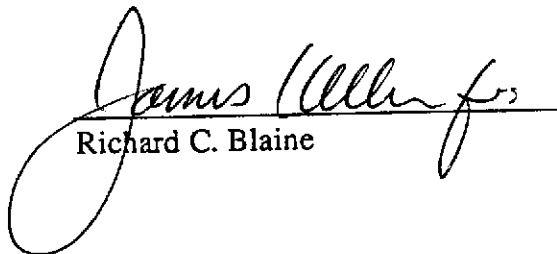
The samples obtained at this site were delivered to American Environmental Network in Pleasant Hill, California. AEN is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory, and is listed as DOHS HMTL #1172.

### 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	8/24/95			8/24/95			8/24/95			8/24/95		
Well Diameter (in.)	2			2			2			2		
Total Well Depth (ft.)	19.28			19.84			18.55			18.75		
Depth To Water (ft.)	3.45			3.57			3.76			4.09		
Free Product (in.)	NONE			NONE			NONE			NONE		
Reason If Not Sampled	--			--			--			--		
1 Case Volume (gal.)	2.53			2.6			2.36			2.34		
Did Well Dewater?	NO			NO			NO			NO		
Gallons Actually Evacuated	8.0			8.0			7.0			7.0		
Purging Device	BAILER			BAILER			BAILER			BAILER		
Sampling Device	BAILER			BAILER			BAILER			BAILER		
Time	13:30	13:33	13:36	14:27	14:29	14:33	12:02	12:05	12:08	13:59	14:02	14:05
Temperature (Fahrenheit)	67.0	66.2	66.2	70.0	68.0	68.0	67.6	66.6	66.8	68.8	66.2	66.0
pH	7.6	7.4	7.4	7.2	7.0	7.0	7.2	7.0	7.0	7.2	7.0	7.0
Conductivity (micromhos/cm)	3000	3000	3000	1400	1800	1800	3000	3000	3000	2400	2400	2400
Nephelometric Turbidity Units	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
BTS Chain of Custody	950824-V-1			950824-V-1			950824-V-1			950824-V-1		
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	8/24/95				8/24/95			
Well Diameter (in.)	2				2			
Total Well Depth (ft.)	9.95				9.88			
Depth To Water (ft.)	1.57				4.95			
Free Product (in.)	NONE				NONE			
Reason If Not Sampled	--				--			
1 Case Volume (gal.)	1.34				0.78			
Did Well Dewater?	NO				NO			
Gallons Actually Evacuated	4.0				3.0			
Purging Device	BAILER				BAILER			
Sampling Device	BAILER				BAILER			
Time	12:33	12:36	12:39	13:00	13:02	13:05		
Temperature (Fahrenheit)	75.6	73.4	73.4	72.6	72.6	72.4		
pH	6.8	6.8	6.8	7.2	7.2	7.2		
Conductivity (micromhos/cm)	4800	5000	5000	3000	3000	3000		
Nephelometric Turbidity Units	>200	>200	>200	>200	>200	>200		
BTS Chain of Custody	950824-V-1				950824-V-1			
BTS Sample I.D.	MW-5				MW-6			
DOHS HMTL Laboratory	AEN				AEN			
Analysis	TPH (GAS), BTEX				TPH (GAS), BTEX			

