



Chevron U.S.A. Inc.

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

92 APR -2 1992 28

Marketing Department

March 24, 1992

Mr. Ravi Arulananthum
Alameda County Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

shd # 384 1

Re: Former Chevron Station # 9-2582
7420 Dublin Blvd., Dublin, CA 94568

Dear Mr. Arulananthum:

Please find attached a report dated February 13, 1992, which was prepared by Chevron's consultant, RESNA, to describe the results of groundwater monitoring performed on January 28, 1992, at the site captioned above.

Chevron's consultant, Geraghty & Miller (GM) has completed the installation and permitting of a vapor extraction and treatment system at the site. The system was started up on March 11, 1992. I have instructed GM to send you a copy of the start-up report required by the Bay Area Air Quality Management District when it is completed.

If you have any questions or comments, I can be reached at (510) 842-8658.

Sincerely,

Clint B. Rogers
Engineer, Site Assessment and Remediation

Attachment

cc: San Francisco Bay RWQCB, Oakland, CA
Janet Clinton (for Parkway Three), 2425 Webb Avenue, Suite 200, Alameda, CA 94501

73 Digital Drive
Novato, California 94949-5704
Phone: (415) 382-7400
FAX: (415) 382-7415

FEB 21 1992 TLE

February 13, 1992

std # 3841

Mr. Clint Rogers
Chevron USA
2410 Camino Ramon
San Ramon, California 94583-0804

Re: Quarterly Groundwater Monitoring
Sampled January 1992
Chevron Service Station #92582
Dublin, California
WGR Project #1-124.08

Dear Mr. Rogers:

This letter report presents the results of the groundwater monitoring performed on January 28, 1992 by Western Geologic Resources/RESNA (RESNA) at the subject site (Figure 1).

On January 28, 1992, RESNA staff measured depth to water, purged, and sampled monitor wells EA-1, EA-2, and EA-3. The standard operating procedure for groundwater sampling, SOP-4, and the standard operating procedure for taking liquid levels, SOP-8, are attached; the field sampling monitoring forms are also attached.

All purged water was temporarily stored on-site in 55-gallon drums pending receipt of analytic reports. Erickson, Inc. was notified that 154 gallons of water could be picked up for disposal.

The groundwater-elevation measurements are shown in Table 1, along with the measurements from past site monitorings. Figure 2 shows the potentiometric surface of shallow groundwater on January 28, 1992. Table 2 presents a compilation of the laboratory analyses performed this quarter by Superior Precision Analytical, as well as past analytical results.

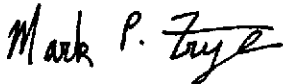
The next semi-annual sampling event is scheduled for July 1992.

C. Rogers/February 13, 1992

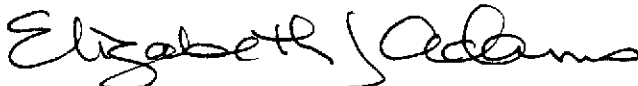
2

Western Geologic Resources/RESNA is pleased to provide geologic and environmental consulting services for Chevron and trusts that this report meets your needs. Please call us at (415) 382-7400 if you have any questions.

Sincerely,
Western Geologic Resources/RESNA

A handwritten signature in black ink that reads "Mark P. Frye".

Mark P. Frye
Engineering Technician

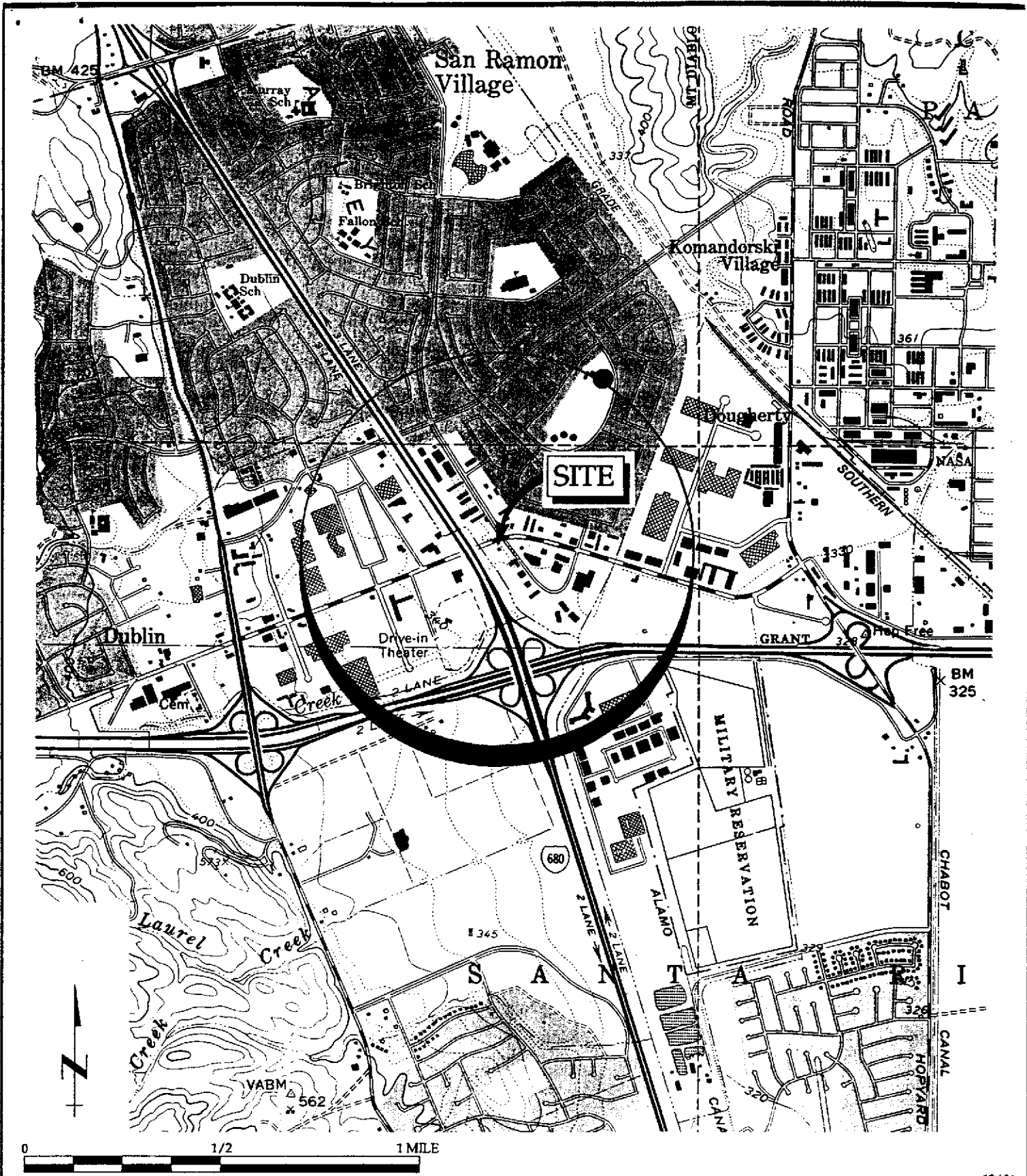
A handwritten signature in black ink that reads "Elizabeth J. Adams".

Elizabeth J. Adams
Field Operations Manager

MPF/EJA:sg

ENCLOSURES

Figure 1: Site Location Map
Figure 2: Potentiometric Surface of Shallow Groundwater, January 28, 1992
Table 1: Groundwater-Elevation Data
Table 2: Analytic Results: Groundwater Samples
SOP-4: Groundwater Purging and Sampling
SOP-8: Gauging Liquid Levels Using Water Level Probe or Interface Probe
Field Sampling and Monitoring Forms
Chain-of-Custody
Laboratory Analytic Reports



10/81

EXPLANATION

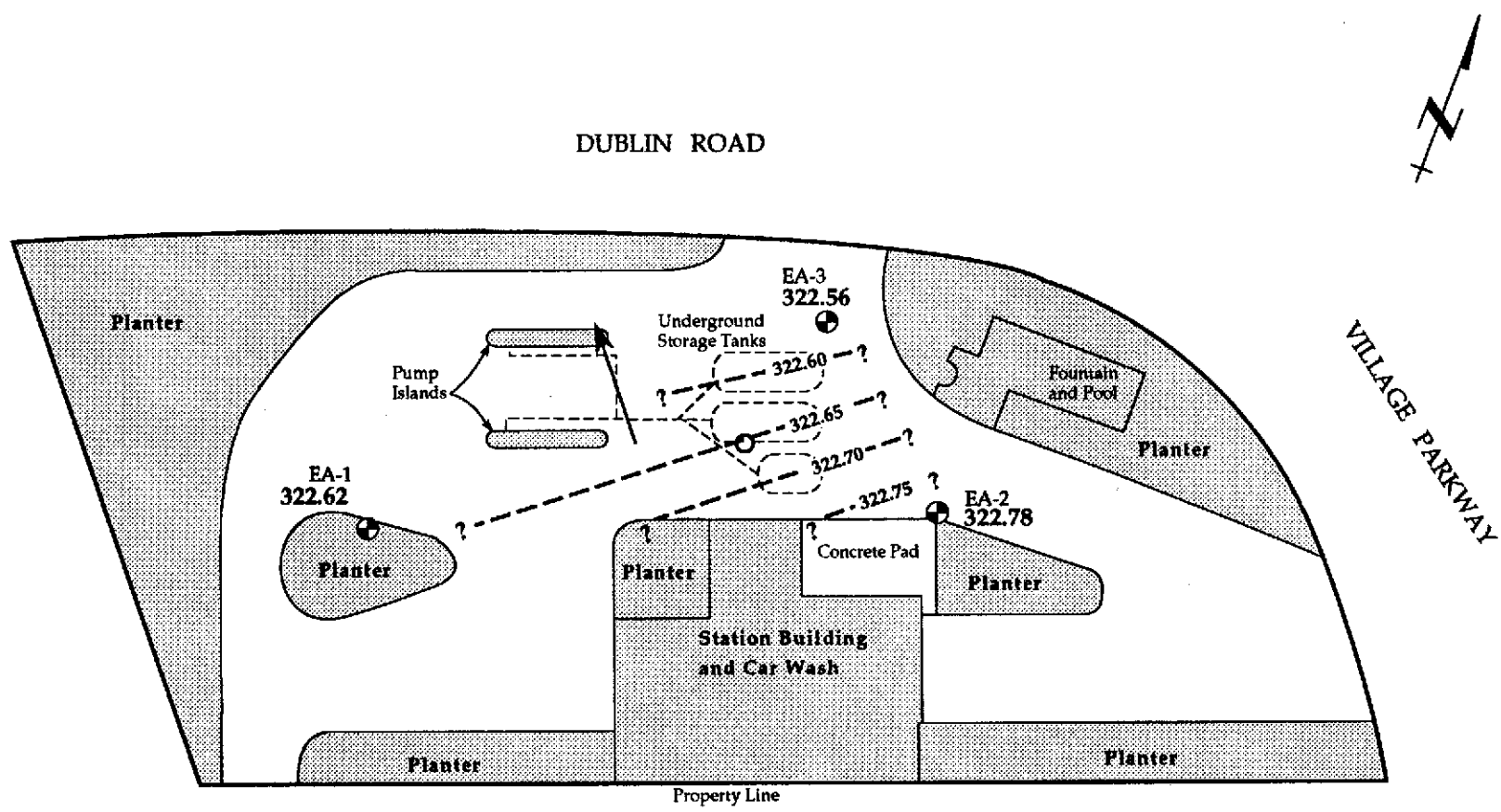
Site Location Map
Former Chevron Service Station #92582
Dublin, California

FIGURE

1

Map Reference: USGS topographic, 7.5 min. series, Dublin quadrangle





EXPLANATION	
	EA-1 322.62 Monitor Well location and groundwater elevation, feet above mean sea level
	10" diameter PVC casing
	322.70 - - - - ? Groundwater elevation contour, feet above mean sea level dashed where inferred, queried where uncertain
	Estimated direction of groundwater flow

Potentiometric Surface of Shallow Groundwater
 January 28, 1992
 Former Chevron Service Station #92582
 Dublin, California

FIGURE

2

TABLE 1. Groundwater-Elevation Data
Chevron Service Station #92582
Dublin, California

Well ID #	Date	TOC	DTW ←-----ft----->	Elev-W
EA-1*	Oct 24, 1988	333.41	10.64	322.77
EA-1*	Nov 2, 1988	333.41	10.69	322.72
EA-1*	Dec 20, 1988	333.41	10.51	322.90
EA-1*	Mar 28, 1989	333.41	9.87	323.54
EA-1	Aug 2, 1989	333.41	10.34	323.07
EA-1	Nov 6, 1989	333.41	10.65	322.76
EA-1	Jan 25, 1990	333.41	10.60	322.81
EA-1	Apr 23, 1990	333.41	10.58	322.83
EA-1	Aug 1, 1990	333.41	10.88	322.53
EA-1	Oct 24, 1990	333.41	11.12	322.29
EA-1	Jan 31, 1991	333.41	11.16	322.25
EA-1	Aug 21, 1991	333.41	10.80	322.61
EA-1	Oct 7, 1991	333.41	10.79	322.62
EA-1	Jan 28, 1992	333.41	10.79	322.62
EA-2*	Oct 24, 1988	332.59	9.70	322.89
EA-2*	Nov 2, 1988	332.59	10.03	322.56
EA-2*	Dec 20, 1988	332.59	9.98	322.61
EA-2*	Mar 28, 1989	332.59	8.80	323.79
EA-2	Aug 2, 1989	332.59	9.44	323.15
EA-2	Nov 6, 1989	332.59	9.53	323.06
EA-2	Jan 25, 1990	332.59	9.27	323.32
EA-2	Apr 23, 1990	332.59	9.35	323.24
EA-2	Aug 1, 1990	332.59	9.71	322.88
EA-2	Oct 24, 1990	332.59	10.08	322.51
EA-2	Jan 31, 1991	332.59	10.21	322.38
EA-2	Aug 21, 1991	332.59	9.80	322.79
EA-2	Oct 7, 1991	332.59	9.98	322.61
EA-2	Jan 28, 1992	332.59	9.81	322.78
EA-3*	Oct 24, 1988	333.64	11.03	322.61
EA-3*	Nov 2, 1988	333.64	11.03	322.61
EA-3*	Dec 20, 1988	333.64	10.96	322.68
EA-3*	Mar 28, 1989	333.64	9.77	322.87
EA-3	Aug 2, 1989	333.64	10.65	322.99
EA-3	Nov 6, 1989	333.64	10.78	322.86
EA-3	Jan 25, 1990	333.64	10.66	322.98
EA-3	Apr 23, 1990	333.64	10.68	322.96
EA-3	Aug 1, 1990	333.64	11.03	322.61
EA-3	Oct 24, 1990	333.64	11.35	322.29

TABLE 1. Groundwater-Elevation Data (continued)
Chevron Service Station #92582
Dublin, California

Well ID #	Date	TOC	DTW ←-----ft----->	Elev-W
EA-3	Jan 31, 1991	333.64	11.52	322.12
EA-3	Aug 21, 1991	333.64	---	---
EA-3	Oct 7, 1991	333.64	11.15	322.49
EA-3	Jan 28, 1992	333.64	11.08	322.56
PVC	Aug 2, 1989	---	9.83	---
PVC	Nov 6, 1989	---	---	---
PVC	Jan 25, 1990	---	---	---
PVC	Apr 23, 1990	---	---	---
PVC	Aug 1, 1990	---	---	---
PVC	Oct 24, 1990	---	---	---
PVC	Jan 31, 1991	---	---	---
PVC	Aug 21, 1991	---	---	---
PVC	Oct 7, 1991	---	---	---
PVC	Jan 28, 1992	---	---	---

NOTES:

- TOC = Top-of-Casing Elevation
- DTW = Depth to Water
- Elev-W = Elevation of Water
- ft = feet
- PVC = 10" PVC Casing
- * = Data obtained by EA Engineering, Science and Technology, Inc.
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-
-

TABLE 2. Analytic Results: Groundwater Samples
Chevron Station #92582
Dublin, California

Well ID #	Date	Lab	EPA Method	TPPH/TPH	B	T	E	X	1,2-DCA
				←-----ppb-----→					
EA-1*	Oct 17, 1988	NA	NA	<50.0	<0.5	<0.5	<0.5	<0.5	---
EA-1*	Dec 20, 1988	PACE	8015/8020	<50.0	<0.5	<0.5	<0.5	<0.5	---
EA-1*	Mar 28, 1989	PACE	8015/8020	<250	<0.5	<0.5	<0.5	<0.5	---
EA-1	Aug 2, 1989	CCAS	8260	<50.0	<0.1	<0.1	<0.1	<0.1	<0.1
EA-1	Nov 6, 1989	SAL	8015/8240	<500	<3.0	<5.0	<5.0	<5.0	<5.0
EA-1	Jan 25, 1990	SAL	8015/8020/8010	<50	<0.5	<0.5	<0.5	<0.5	<0.5
EA-1	Apr 23, 1990	SAL	8015/8020/8010	71	2	5	3	8	<0.5
EA-1	Aug 1, 1990	SAL	8015/8020	300	86	21	10	33	---
EA-1	Oct 24, 1990	SAL	8015/8020	280	69	13	11	16	---
EA-1	Jan 31, 1991	SAL	8015/8020	460	160	11	17	17	---
EA-1	Aug 21, 1991	SAL	8015/8020	2,400	400	220	44	120	---
EA-1D	Aug 21, 1991	SAL	8015/8020	2,300	390	210	42	120	---
EA-1	Oct 7, 1991		Well Not Sampled						
EA-1	Jan 28, 1992	SAL	8015/8020	3,600	320	360	110	310	---
EA-1D	Jan 28, 1992	SAL	8015/8020	3,000	290	320	99	270	---
EA-2*	Oct 17, 1988	NA	NA	<50.0	<0.5	<0.5	<0.5	1.2	---
EA-2*	Dec 20, 1988	PACE	8015/8020	<50.0	<0.5	<0.5	<0.5	<0.5	---
EA-2*	Mar 28, 1989	PACE	8015/8020	<250	<2.0	<0.5	<0.5	<0.5	---
EA-2	Aug 2, 1989	CCAS	8260	<50.0	<0.1	<0.1	<0.1	<0.1	<0.1
EA-2	Nov 6, 1989	SAL	8015/8240	<500	<3.0	<5.0	<5.0	<5.0	<5.0
EA-2	Jan 25, 1990	SAL	8015/8020/8010	<50	<0.5	<0.5	<0.5	<0.5	<0.5
EA-2	Apr 23, 1990	SAL	8015/8020/8010	50	0.6	0.8	<0.5	2	<0.5
EA-2	Aug 1, 1990	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-2	Oct 24, 1990	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-2	Jan 31, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-2D	Jan 31, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-2	Aug 21, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-2	Oct 7, 1991		Well Not Sampled						
EA-2	Jan 28, 1992	SAL	8015/8020	<50	0.8	<0.5	<0.5	<0.5	---



TABLE 2. Analytic Results: Groundwater Samples (continued)
Chevron Station #92582
Dublin, California

Well ID #	Date	Lab	EPA Method	TPPH/TPH	B	T	E	X	1,2-DCA
				-----ppb-----					
EA-3*	Oct 17, 1988	NA	NA	<50.0	1.8	<0.5	<0.5	3.0	---
EA-3*	Dec 20, 1988	PACE	8015/8020	240	90.0	1.2	13.0	3.3	---
EA-3*	Mar 28, 1989	PACE	8015/8020	2,300	380.0	130.0	240.0	910.0	---
EA-3	Aug 2, 1989	CCAS	8260	<50.0	<0.1	<0.1	<0.1	<0.1	<0.1
EA-3	Nov 6, 1989	SAL	8015/8240	<500	<3.0	<5.0	<5.0	<5.0	<5.0
EA-3	Jan 25, 1990	SAL	8015/8020/8010	<50	<0.5	<0.5	<0.5	<0.5	<0.5
EA-3	Apr 23, 1990	SAL	8015/8020/8010	<50	0.8	<0.5	0.9	<0.5	<0.5
EA-3	Aug 1, 1990	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-3	Oct 24, 1990	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-3	Jan 31, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
EA-3	Aug 21, 1991		Well not sampled						
EA-3	Oct 7, 1991	SAL	8015/8020	180	40	20	4.7	8.4	---
EA-3D	Oct 7, 1991	SAL	8015/8020	200	43	17	4.1	6.7	---
EA-3	Jan 28, 1992	SAL	8015/8020	640	69	85	13	46	---
PVC	Aug 2, 1989	CCAS	8260	100,000	8,700	14,000	1,700	17,000	50
PVC-D	Aug 2, 1989	CCAS	8260	110,000	9,200	14,000	1,800	13,000	50
PVC	Nov 6, 1989	---	---	---	---	---	---	---	---
PVC	Jan 25, 1990	---	---	---	---	---	---	---	---
PVC	Apr 23, 1990	---	---	---	---	---	---	---	---
PVC	Aug 1, 1990	---	---	---	---	---	---	---	---
PVC	Oct 24, 1990	---	---	---	---	---	---	---	---
EB*	Mar 28, 1989	PACE	8015/8020	<250.0	<0.5	<0.5	<0.5	<0.5	---
TB	Jul 28, 1989	CCAS	8260	<50.0	<0.1	<0.1	<0.1	<0.1	<0.1
TB	Nov 6, 1989	SAL	8015/8240	<500	<3.0	<5.0	<5.0	<5.0	<5.0
TB	Jan 25, 1990	SAL	8015/8020/8010	<50	<0.5	<0.5	<0.5	<0.5	NA
TB	Apr 23, 1990	SAL	8015/8020/8010	<50	<0.5	<0.5	<0.5	<0.5	<0.5
TB	Aug 1, 1990	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB	Oct 24, 1990	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB	Jan 31, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB	Aug 21, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB	Oct 7, 1991	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---
TB	Jan 28, 1992	SAL	8015/8020	<50	<0.5	<0.5	<0.5	<0.5	---

TABLE 2. Analytic Results: Groundwater Samples (continued)
Chevron Station #92582
Dublin, California

NOTES:

TPPH = Total Purgeable Petroleum Hydrocarbons as gasoline
TPH = Total Petroleum Hydrocarbons as gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
1,2-DCA = 1,2-Dichloroethane
ppb = parts-per-billion
D = Duplicate analysis
PVC = 10" PVC casing

EB = Equipment Blank
TB = Travel Blank
* = Sample collected by EA Engineering,
Science and Technology, Inc.
NA = Not Available
--- = Not analyzed/Not applicable
< = Less than the detection limit
Gas = Gasoline
PACE = Pace Laboratories, Inc.
CCAS = Central Coast Analytical Laboratories, Inc.
SAL = Superior Precision Analytical



**STANDARD OPERATING PROCEDURES
RE: GROUNDWATER PURGING AND SAMPLING
SOP-4**

Prior to water sampling, each well is purged by evacuating a minimum of three well-casing volumes of groundwater or until the temperature, conductivity, and pH of the discharge water stabilizes. If a well is purged dry before three casing volumes have been removed, the sample will be taken after the well has recovered to within 80 percent of the static water level.

The sampling equipment consists of either a teflon or steam-cleaned PVC bailer, a stainless steel bladder pump with a teflon bladder, or submersible stainless steel pump. If the sampling system is dedicated to the well, then the bailer is made of teflon, and the bladder pump is PVC with a polypropylene bladder. A submersible stainless steel and teflon electric pump will be used for purging larger volume wells. Forty milliliter (ml) glass volatile-organic-analysis (VOA) vials, with teflon septa, are used as sample containers. For other analyses the appropriate EPA approved sampling container is used.

The groundwater sample is decanted into each VOA vial in such a manner that there is a meniscus at the top of the vial. The cap is quickly placed over the top of the vial and securely tightened. The VOA vial is then inverted and tapped to see if air bubbles are present. If none are present, the sample is labeled and refrigerated for delivery under chain-of-custody to the laboratory. Label information should include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected from each well. This sample is put on hold at the laboratory. A trip blank is prepared at the laboratory and placed in the transport cooler. It remains with the cooler and is analyzed by the laboratory along with the groundwater samples. A field blank is prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been steam-cleaned, prior to use in a second well, and is analyzed along with the other samples. The field blank demonstrates the quality of in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all the well-development and water sampling equipment that is not dedicated to a well is steam-cleaned between each well. As a second precautionary measure, wells will be sampled in order of least to highest concentrations as established by previous analyses.

STANDARD OPERATING PROCEDURES
RE: GAUGING LIQUID LEVELS USING WATER LEVEL
PROBE OR INTERFACE PROBE
SOP-8

The complete list of field equipment for liquid level gauging is assembled in the Technical office prior to departure to the field. This includes the probe(s), light filter(s), and product bailer(s) to be used for liquid levels (tested in test well before departure). The field kit also includes cleaning supplies (buckets, TSP, spray bottles, and deionized water) to clean the equipment between gauging wells.

When using the water level probe to gauge liquid levels, the probe tip is lowered into the well until the unit sounds. The top-of-casing (TOC) point is determined. This point is marked with a dot or a groove, or is an obvious high point on the casing, or is the north end of the casing. The place on the probe-cord that corresponds with this TOC point is marked and an engineer's tape is used to measure the distance between the probe end and marking on the cord. This measurement is then recorded on the liquid level data sheet as depth to water (DTW).

When using the interface probe to gauge liquid levels, the probe is first grounded by clamping it to the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case. After grounding the probe, the top of the well casing is fitted with a WGR light filter to insure that sunlight does not interfere with the operation of the probe's optical mechanisms. The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates that the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a solid tone. In either case, this is the depth-to-groundwater (DTW) measurement. The solid tone indicates that liquid hydrocarbon is present on top of the groundwater. To determine the thickness of the liquid hydrocarbon, the probe is slowly raised until the solid tone ceases. This is the depth-to-liquid hydrocarbon (DTLH) measurement. The process of lowering and raising the probe must be repeated several times to insure accurate measurements. DTW and DTLH measurements are recorded in hundredths of feet on the liquid level data sheet. When liquid hydrocarbon is found in a well, a product bailer must be lowered partially through the water/liquid hydrocarbon interface to confirm the thickness of liquid hydrocarbon on the water surface. This measurement is recorded on the data sheet as liquid hydrocarbon thickness (PT).

In order to avoid cross contamination of wells during the liquid level gauging process, wells are gauged in a clean to dirty order (where this information is available). In addition, any gauging equipment is cleaned with TSP and water and thoroughly rinsed with deionized water before daily use, before gauging another well on a site, and at the completion of daily use.

LIQUID-LEVEL DATA SHEET

Project No. 1-124-08	Project Name DUBLIN	Date 1-28-92	Initials DKO
-------------------------	------------------------	-----------------	-----------------

Well No.	HISTORIC DATA/DATE:				CURRENT DATA:				Method WLP / PB / IP	Time	Comments
	DTLH	DTW	LHT	Sounded Depth	DTLH	DTW	LHT	Sounded Depth			
EA-1					-	10.79	-			12:16	
EA-2					-	9.81	-			12:18	
EA-3					-	11.08	-			12:19	

* WLP = Water-Level Probe
 PB = Product Boiler
 IP = Interface Probe

WATER SAMPLING DATA

Project No. 1-124.08 Project Name DUBLIN Well Name ED-1 Date 1-28-92 Time 13:55 Initials PO

WELL DATA

Well Depth (ft.) <u>37.7</u>	Sounded Depth (ft.)	Well Type <input checked="" type="checkbox"/> Monitor Well <input type="checkbox"/> Sampling Port <input type="checkbox"/> Other (describe)
DTW (ft.) <u>10.79</u>	Date/Time	
Well Diam. (in.) <u>A</u>	LHC Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	LHC Thickness

CHEMICAL DATA

Time	Ph Probe No.	Temp Probe No.	Cond Probe No.
1			
2			
3			

umhos

EVACUATION

Initial Height of Water in Casing (ft.) <u>20.91</u>	Formulas and Conversions $r = \text{well radius in ft.}$ $h = \text{ht. of water column in ft.}$ $\text{vol. of column} = \pi r^2 h$ 7.48 gal / ft^3 $V_{cs} \cdot \text{casing} = 0.163 \text{ gal / ft.}$ $V_{cs} \cdot \text{casing} = 0.367 \text{ gal / ft.}$ $V_{cs} \cdot \text{casing} = 0.653 \text{ gal / ft.}$ $V_{cs} \cdot \text{casing} = 0.826 \text{ gal / ft.}$ $V_{cs} \cdot \text{casing} = 1.470 \text{ gal / ft.}$ $V_{cs} \cdot \text{casing} = 2.610 \text{ gal / ft.}$ $V_{cs} \cdot \text{casing} = 4.080 \text{ gal / ft.}$	Sampling Equipment <input type="checkbox"/> Dedicated System <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Baller <input type="checkbox"/> PVC Baller <input type="checkbox"/> 1/2 in. <input type="checkbox"/> 1 1/4 in. <input type="checkbox"/> 3 in.
Volume (gal) <u>17.57</u>		Sampling Port No.
Volume to be Evacuated <input type="checkbox"/> x3 <input checked="" type="checkbox"/> x4 <u>52.72</u>	Volume (gal)	Rate (gpm)

SAMPLING

Point of Collection <input checked="" type="checkbox"/> PE Hose <input type="checkbox"/> End of Bailer <input type="checkbox"/> Other:	Time Samples Taken <u>14:53</u>	Date <u>1-28-92</u>
Sample Color <u>cloudy</u>	Depth to Water (ft.) <u>14.50</u>	Refrigerated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sediment / Foreign Matter <u>silt</u>	Odor <u>MODERATE</u>	
Sampling Sequence <u>3</u>		

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	<u>14:50</u>			
Start Time	<u>14:00</u>			
Minutes	<u>50</u>			
Amt Evac'd	<u>53</u> gal			
Total Evac'd	<u>53</u> gal			
Total Minutes	<u>50</u> min			
Evac Rate	<u>1.06</u> gpm			

Sample ID No.	Volume (ml)	Container	Preservative	Analysis	Lab
<u>01282-01A40</u>	<u>Y</u>	<u>HCl</u>	<u>CO02/80015</u>	<u>59L</u>	
<u>B</u>	<u>?</u>	<u>?</u>	<u>?</u>	<u>?</u>	
<u>C</u>	<u>?</u>	<u>?</u>	<u>?</u>	<u>?</u>	

Pumped Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	After (gal)	Recovery: <table border="1"> <thead> <tr> <th>Time</th> <th>OTW</th> </tr> </thead> <tbody> <tr><td>1</td><td></td></tr> <tr><td>2</td><td></td></tr> <tr><td>3</td><td></td></tr> <tr><td>4</td><td></td></tr> <tr><td>5</td><td></td></tr> </tbody> </table>	Time	OTW	1		2		3		4		5	
Time	OTW													
1														
2														
3														
4														
5														
Depth to Water During Pumping (ft.)	Time <u>14:10 @ 14:15</u>													
Depth to Water for 80% Recovery	Recovery Rate (gpm)													
Sampled After: <input type="checkbox"/> 80% Rec. <input type="checkbox"/> 2 hours	% Recovery at Time of Sampling													

Container Codes: P = Plastic Bottle B = Brown Glass C = Clear Glass Other: Describe

COMMENTS

WATER SAMPLING DATA

7111

Project No. 1-124.08	Project Name DUBLIN	Well Name EA-2	Date 1-28-92	Time 12:40	Initials PC
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WELL DATA		
Well Depth (ft.) 38.3	Sounded Depth (ft.)	Well Type <input checked="" type="checkbox"/> Monitor Well <input type="checkbox"/> Sampling Port <input type="checkbox"/> Other (describe)
DTW (ft.) 9.81	Date/Time	
Well Diam. (in.) 4	LHC Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	LHC Thickness

CHEMICAL DATA			
Time	Ph Probe No.	Temp Probe No.	Cond Probe No.
1			umhos
2			
3			

EVACUATION		
Initial Height of Water in Casing (ft.) 28.49	Formulas and Conversions r = well radius in ft. h = ht. of water column in ft. vol. of column = $\pi r^2 h$ 7.48 gal / ft ³ V ₁₀ casing = 0.163 gal / ft. V ₂₀ casing = 0.367 gal / ft. V ₃₀ casing = 0.653 gal / ft. V ₄₀ casing = 0.826 gal / ft. V ₅₀ casing = 1.470 gal / ft. V ₆₀ casing = 2.610 gal / ft. V ₇₀ casing = 4.080 gal / ft.	Sampling Equipment Dedicated System <input type="checkbox"/> Bladder Pump System <input type="checkbox"/> Bailer PVC Bailer <input type="checkbox"/> 1/2 in. <input type="checkbox"/> 1 1/4 in. <input type="checkbox"/> 3 in.
Volume (gal) 18.60		Sampling Port No.
Volume to be Evacuated <input type="checkbox"/> x3 <input checked="" type="checkbox"/> x4 55.81		Volume (gal) / Rate (gpm)

SAMPLING	
Point of Collection <input checked="" type="checkbox"/> PE Hose <input type="checkbox"/> End of Bailer <input type="checkbox"/> Other:	Time Samples Taken 13:25 Date 1-28-92
	Depth to Water (ft) 12.80 Refrigerated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Color CLEAR	Odor NONE
Sediment / Foreign Matter NONE	
Sampling Sequence 1	

Evacuation	Evacuated	Evacuated	Evacuated
Stop Time	13:23		
Start Time	12:45		
Minutes	38		
Amt Evac'd	56 gal		
Total Evac'd	56 gal		
Total Minutes	38 min		
Evac Rate	1.47 gpm		

Sample ID No.	Volume (ml)	Container	Preservative	Analysis	Lab
01282.62A	40	V	1121	602/3015	SAL
B	↓	↓	↓	↓	↓
C	↓	↓	↓	↓	↓

Pumped Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	After (gal)	Recovery	
Depth to Water During Pumping (ft) 15.35 @ 15:20	Time	DTW	
Depth to Water for 80% Recovery	Recovery Rate (gpm)	1	
Sampled After: <input type="checkbox"/> 80% Rec. <input type="checkbox"/> 2 hours	% Recovery at Time of Sampling	2	
		3	
		4	
		5	

Container Codes: P = Plastic Bottle B = Brown Glass C = Clear Glass	Other: Describe
COMMENTS	

WATER SAMPLING DATA

THH 1

Project No. <u>1-12A-08</u>	Project Name <u>DUBLIN</u>	Well Name <u>2A-3</u>	Date <u>1-28-92</u>	Time <u>12:45</u>	Initials <u>DKO.</u>
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WELL DATA		
Well Depth (ft.) <u>33.8</u>	Sounded Depth (ft.) <u>/</u>	Well Type <input checked="" type="checkbox"/> Monitor Well <input type="checkbox"/> Sampling Port <input type="checkbox"/> Other (describe)
DTW (ft.) <u>11.08</u>	Date/Time <u>/</u>	
Well Diam. (in.) <u>A</u>	LHC Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	LHC Thickness

CHEMICAL DATA			
Time	Ph Probe No.	Temp Probe No.	Cond Probe No.
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____

EVACUATION		
Initial Height of Water in Casing (ft.) <u>2272</u>	Formulas and Conversions <small>r = well radius in ft. h = ht. of water column in ft. vol. of column = π r² h 7.48 gal / ft³</small>	Sampling Equipment Dedicated System <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Beller PVC Beller <input type="checkbox"/> 1/2 in. <input type="checkbox"/> 1 1/4 in. <input type="checkbox"/> 3 in.
Volume (gal) <u>1A.8A</u>	V ₁ casing = 0.183 gal / ft. V ₂ casing = 0.367 gal / ft. V ₃ casing = 0.653 gal / ft. V ₄ casing = 0.826 gal / ft. V ₅ casing = 1.470 gal / ft. V ₆ casing = 2.610 gal / ft. V ₁₀ casing = 4.080 gal / ft.	Sampling Port No. <u>/</u>
Volume to be Evacuated <input checked="" type="checkbox"/> x3 <u>AA.52</u>		Volume (gal) <u>/</u>

SAMPLING	
Point of Collection <input checked="" type="checkbox"/> PE Hose <input type="checkbox"/> End of Beller <input type="checkbox"/> Other:	Time Samples Taken <u>13:38</u> Date <u>1-28-92</u>
Sample Color <u>Clear</u>	Depth to Water (ft) <u>16.75</u> Refrigerated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sediment / Foreign Matter <u>None</u>	Odor <u>None</u>
Sampling Sequence <u>2</u>	

Evacuation	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time <u>13:35</u>	_____	_____	_____	_____
Start Time <u>12:50</u>	_____	_____	_____	_____
Minutes <u>45</u>	_____	_____	_____	_____
Amt Evac'd <u>45</u> gal	_____ gal	_____ gal	_____ gal	_____ gal
Total Evac'd <u>45</u> gal	_____ gal	_____ gal	_____ gal	_____ gal
Total Minutes <u>45</u> min	_____ min	_____ min	_____ min	_____ min
Evac Rate <u>1.0</u> gpm	_____ gpm	_____ gpm	_____ gpm	_____ gpm

Sample ID No.	Volume (ml)	Container	Preservative	Analysis	Lab
<u>0282-03A</u>	<u>20</u>	<u>V</u>	<u>HCl</u>	<u>CO2/B015</u>	<u>302</u>
<u>B</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>
<u>C</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>	<u>7</u>

Pumped Dry? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	After (gal) <u>15.40</u>	Recovery	
Depth to Water During Pumping (ft) <u>15.40</u>	Time <u>13:25</u>	Time	DTW
Depth to Water for 80% Recovery	Recovery Rate (gpm)	1 _____	_____
Sampled After: <input type="checkbox"/> 80% Rec. <input type="checkbox"/> 2 hours	% Recovery at Time of Sampling	2 _____	_____
		3 _____	_____
		4 _____	_____
		5 _____	_____

Container Codes:	P = Plastic Bottle V = VOA	B = Brown Glass C = Clear Glass	Other: Describe
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COMMENTS

WATER SAMPLING DATA

Project No. 1-121.08	Project Name DUBLIN	Well Name T. BLANK	Date 1-28-92	Time	Initials DO
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WELL DATA	
Well Depth (ft.)	Sounded Depth (ft.)
DTW (ft.)	Date/Time
Well Diam. (In.)	LHC Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
	LHC Thickness
Well Type <input type="checkbox"/> Monitor Well <input type="checkbox"/> Sampling Port <input type="checkbox"/> Other (describe)	

CHEMICAL DATA			
Time	Ph Probe No.	Temp Probe No.	Cond Probe No.
1			umhos
2			
3			

EVACUATION	
Initial Height of Water in Casing (ft)	Formulas and Conversions $r = \text{well radius in ft.}$ $h = \text{ht. of water column in ft.}$ $\text{vol. of column} = \pi r^2 h$ 7.48 gal / ft^3
Volume (gal)	Sampling Equipment Dedicated System <input type="checkbox"/> Bladder Pump <input type="checkbox"/> <input type="checkbox"/> Baller <input type="checkbox"/> PVC Baller <input type="checkbox"/> 1/2 in. <input type="checkbox"/> 1 1/4 in. <input type="checkbox"/> 3 in.
Volume to be Evacuated <input type="checkbox"/> x3 <input type="checkbox"/> x4	Sampling Port No.
	Volume (gal) Rate (gpm)
$V_{1/2}$ casing = 0.183 gal / ft. $V_{3/4}$ casing = 0.387 gal / ft. V_1 casing = 0.653 gal / ft. $V_{1 1/4}$ casing = 0.828 gal / ft. $V_{1 3/4}$ casing = 1.470 gal / ft. V_2 casing = 2.610 gal / ft. V_3 casing = 4.080 gal / ft.	

SAMPLING	
Point of Collection <input type="checkbox"/> PE Hose <input type="checkbox"/> End of Baller <input type="checkbox"/> Other:	Time Samples Taken Date: 1-28-92
Sample Color: clear	Depth to Water (ft): 2 Refrigerated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sediment / Foreign Matter: none	Odor: none
Sampling Sequence	

Evacuation	Evacuated	Evacuated	Evacuated
Stop Time	_____	_____	_____
Start Time	_____	_____	_____
Minutes	_____	_____	_____
Amt Evac'd	_____ gal	_____ gal	_____ gal
Total Evac'd	_____ gal		
Total Minutes	_____ min		
Evac Rate	_____ gpm		

Sample ID No.	Volume (ml)	Container	Preservative	Analysis	Lab
01282.04A	40	V	HCl	CO2/SO15	SAL
B	↓	↓	↓	↓	↓

Pumped Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	After (gal)	Recovery
Depth to Water During Pumping (ft)	Time	Time DTW
Depth to Water for 80% Recovery	Recovery Rate (gpm)	1 _____
Sampled After: <input type="checkbox"/> 80% Rec. <input type="checkbox"/> 2 hours	% Recovery at Time of Sampling	2 _____
		3 _____
		4 _____
		5 _____

Container Codes: P = Plastic Bottle V = VOA	B = Brown Glass C = Clear Glass	Other: Describe
COMMENTS		

WATER SAMPLING DATA

Project No. 1-1284.08	Project Name DUBLIN	Well Name EA-1 PUP - MW	Date 1-28-92	Time	Initials DD
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WELL DATA		
Well Depth (ft.)	Sounded Depth (ft.)	Well Type <input type="checkbox"/> Monitor Well <input type="checkbox"/> Sampling Port <input type="checkbox"/> Other (describe)
DTW (ft.)	Date/Time	
Well Diam. (in.)	LHC Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	LHC Thickness

CHEMICAL DATA			
Time	Ph Probe No.	Temp Probe No.	Cond Probe No.
1			umhos
2			
3			

EVACUATION		
Initial Height of Water in Casing (ft)	Formulas and Conversions $r = \text{well radius in ft.}$ $h = \text{ht. of water column in ft.}$ $\text{vol. of column} = \pi r^2 h$ 7.48 gal / ft^3	Sampling Equipment Dedicated System <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Bailer PVC Bailer <input type="checkbox"/> 1/2 in. <input type="checkbox"/> 1 1/4 in. <input type="checkbox"/> 3 in.
Volume (gal)	V_1 casing = 0.163 gal / ft. V_2 casing = 0.367 gal / ft. V_3 casing = 0.653 gal / ft. $V_{1.5}$ casing = 0.826 gal / ft. V_4 casing = 1.470 gal / ft. V_5 casing = 2.610 gal / ft. V_{10} casing = 4.080 gal / ft.	Sampling Port No.
Volume to be Evacuated <input type="checkbox"/> x3 <input type="checkbox"/> x4		Volume (gal) / Rate (gpm)

SAMPLING		
Point of Collection <input checked="" type="checkbox"/> PE Hose <input type="checkbox"/> End of Bailer <input type="checkbox"/> Other:	Time Samples Taken 14.53	Date 1-28-92
	Depth to Water (ft) 14.50	Refrigerated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Sample Color	Odor	
<i>Cloudy</i>	<i>MODERATE</i>	
Sediment / Foreign Matter	<i>Silty</i>	
Sampling Sequence		

Evacuation	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	_____	_____	_____	_____
Start Time	_____	_____	_____	_____
Minutes	_____	_____	_____	_____
Amt Evac'd	_____ gal	_____ gal	_____ gal	_____ gal
Total Evac'd	_____ gal	_____ gal	_____ gal	_____ gal
Total Minutes	_____ min	_____ min	_____ min	_____ min
Evac Rate	_____ gpm	_____ gpm	_____ gpm	_____ gpm

Sample ID No.	Volume (ml)	Container	Preservative	Analysis	Lab
01282.05A	40	V	HCl	CO2/BO15	SAL
B	↓	↓	↓	↓	↓
C	↓	↓	↓	↓	↓

Pumped Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No	After (gal)	Recovery	
		Time	DTW
Depth to Water During Pumping (ft)	Time	1 _____	_____
Depth to Water for 80% Recovery	Recovery Rate (gpm)	2 _____	_____
Sampled After: <input type="checkbox"/> 80% Rec. <input type="checkbox"/> 2 hours	% Recovery at Time of Sampling	3 _____	_____
		4 _____	_____
		5 _____	_____

Container Codes:	P = Plastic Bottle V = VOA	B = Brown Glass C = Clear Glass	Other: Describe
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COMMENTS

PLEASE RETURN WATER SAMPLING FORM EA-1 FOR FURTHER INFO.

Fax copy of Lab Report and COC to Chevron Contact: Yes No

Yes No

12741 UBY

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 92582
Facility Address -
Consultant Project Number 1-124.08
Consultant Name WGR/RESNA
Address 73 DIGITAL DR NOVATO, 94949
Project Contact (Name) LIZ ADAMS
415 (Phone) 382-7400 (Fax Number) 7415

Chevron Contact (Name) Clint Rogers
(Phone) 842-8658
Laboratory Name SAL
Laboratory Release Number 2612800
Samples Collected by (Name) Dean K Baki
Collection Date 1/28/92
Signature Dean K Baki

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type C = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed											Remarks				
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)								
01282	01ABC	3	W		14:53	HCl	Yes	X															
	02ABC	3			13:25																		
	03ABC	3			13:38																		
	04AB	2			-																		
	05ABC	3			14:53																		

Please Initial: _____
 Samples Stored in ice Yes
 Appropriate containers. OK
 Samples preserved. ✓
 VOA's without headspace ✓
 Comments: _____

Relinquished By (Signature) <u>Dean K Baki</u>	Organization <u>RESNA</u>	Date/Time <u>10:15</u> <u>1/29/92</u>	Received By (Signature) <u>Clint Rogers</u>	Organization <u>EXPRESS IT</u>	Date/Time <u>10:15</u> <u>1-29-92</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days <u>16 Days</u> As Contracted
Relinquished By (Signature) <u>X701</u>	Organization <u>EXP IT</u>	Date/Time <u>12:15</u> <u>1-29-92</u>	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>	Organization <u>SAL</u>	Date/Time <u>1-29-92 12:15 PM</u>	

COC-3.DWG/03 91/HCH



Superior Precision Analytical, Inc.

1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 12741
CLIENT: Resna/Western Geologic Resources
CLIENT JOB NO.: 1-124.08

DATE RECEIVED: 01/29/92
DATE REPORTED: 02/03/92

Page 1 of 2

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12741- 1	01282.01	01/28/92	01/30/92
12741- 2	01282.02	01/28/92	01/31/92
12741- 3	01282.03	01/28/92	01/30/92
12741- 4	01282.04	01/28/92	01/30/92
12741- 5	01282.05	01/28/92	01/30/92

Laboratory Number:	12741	12741	12741	12741	12741
	1	2	3	4	5

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	3600	ND<50	640	ND<50	3000
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	320	0.8	69	ND<0.5	290
TOLUENE:	360	ND<0.5	85	ND<0.5	320
ETHYL BENZENE:	110	ND<0.5	13	ND<0.5	99
XYLENES:	310	ND<0.5	46	ND<0.5	270