ENVIRONMENTAL ENGINEERING, INC
6620 Owens Drive, Suite A • Pleasanton, CA 94588-3334
TEL (925)734-6400 • FAX(925)734-6401

August 8, 2006

Mr. Steven Plunkett
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **#RO0000346**
Site Address: 3519 Castro Valley Boulevard, Castro Valley, CA
Castro Valley Gasoline Service Station

Dear Mr. Plunkett:

SOMA's "Sensitive Receptor Survey Report" for the subject property has been uploaded to the State's GeoTracker database and Alameda County's FTP site for your review.

Thank you for your time in reviewing our report. If you have any questions or comments, please call me at (925) 734-6400.

Sincerely,

Mansour Sepehr, Ph.D., P.E.
Principal Hydrogeologist

Enclosure

cc: Mr. Azim Shakoori w/enclosure
Ms. Lynelle Onishi, URS Corporation

ENVIRONMENTAL ENGINEERING, INC
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SENSITIVE RECEPTOR SURVEY REPORT

CHEVRON GASOLINE SERVICE STATION
3519 Castro Valley Boulevard
Castro Valley, California

August 8, 2006

Project 2762

Prepared for

Mr. Mirazim Shakoori
3519 Castro Valley Boulevard
Castro Valley, California

Prepared by

SOMA Environmental Engineering, Inc.
6620 Owens Drive, Suite A
Pleasanton, California

CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc., (SOMA) on behalf of Mr. Mirazim Shakoori, the property owner of 3519 Castro Valley Boulevard, Castro Valley, California. This report includes details of the sensitive receptor survey, as requested by the Alameda County Health Care Services in their letter dated June 22, 2006.

Mansour Sepehr, Ph.D., P.E.
Principal Hydrogeologist

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1.0 INTRODUCTION

This report has been prepared by SOMA Environmental Engineering, Inc., (SOMA) on behalf of Mr. Mirazim Shakoori, the property owner of 3519 Castro Valley Boulevard, Castro Valley, California (the "Site"), as shown in Figure 1. Appendix A contains parcel maps that illustrate the official parcel subdivision and legal property boundaries.

This report has been prepared to comply with the Alameda County Health Care Services' (ACHCS's) directive as described in their letter dated June 22, 2006.

2.0 BACKGROUND

In 1984, three single-walled fiberglass underground storage tanks (USTs) with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons were installed in the southeastern portion of the Site. A former dispenser island reportedly existed on the west side of the Site; however, there was no available information on the date of the dispenser removal.

In 1988, a 1,000-gallon double-walled fiberglass waste oil tank (WOT) was installed to replace the previous 380-gallon WOT. In September 1988, Kaprealian Engineering, Inc. (KEI) removed the original 380-gallon WOT and observed holes in this UST. Due to holes observed in the former WOT, confirmation soil samples were collected from the bottom of the excavation. The following analytical soil results were observed: benzene and toluene were detected at 6.8 ug/Kg and 9.5 ug/Kg, respectively. Total petroleum hydrocarbons (TPH) and total oil and grease (TOG) constituents were not detected.

In September and October 1992, Environmental Science & Engineering, Inc. (ESE) drilled five soil boreholes and converted them into monitoring wells (ESE-1

through ESE-5). Soil and groundwater samples were collected during the well installation. Figure 2 shows the locations of the wells.

In July 1995, three additional monitoring wells were installed (two on-site wells, MW-6 and MW-8, and one off-site well, MW-7). In April 1996, well MW-8, which was located on the western margin of the Site, was decommissioned to accommodate the road-widening project along Redwood Boulevard. Figure 2 shows the locations of these wells.

On August 20, 2003, prior to the UST removal activities, SOMA oversaw Vironex drill two boreholes. The two boreholes were drilled in order to characterize the soil for landfill acceptance criteria. The borehole locations are shown in Figure 2. In September 2003, three single-walled fiberglass USTs, with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons were removed and replaced with new double-walled fuel tanks. The new USTs consisted of double-walled fiberglass tanks with capacities of 12,000 gallons and 20,000 gallons. In addition to the removal and replacement of the USTs, the dispensers, product lines, and vent lines were also removed and replaced. During the Third Quarter 2003, two monitoring wells, ESE-3 and ESE-4, were decommissioned due to construction activities.

In December 2003, SOMA oversaw the drilling of the off-site temporary well boreholes. The boreholes were drilled to determine the horizontal extent of the petroleum hydrocarbon contamination in the off-site areas. The locations of the temporary boreholes are displayed in Figure 2.

On June 10, 2004, SOMA installed on and off-site monitoring wells at the Site. SOMA-1 was installed in the southeastern section of the Site. SOMA-2 to SOMA-4 were installed south and southeast of the Site. Figure 2 shows the locations of these monitoring wells.

2.1 Regional Geology

The U.S. Geologic Survey (USGS) mapped the Site as weakly consolidated, slightly weathered, poorly sorted, irregular interbedded clay, silt, sand, and gravel. Based on the temporary well and monitoring well borehole logs, the underlying sediments generally consists of soft to very stiff silty clay and clayey silt with intervening layers of medium dense silty sand and sandy silt.

In developed urban areas, such as the Bay Area, earthwork construction often involves the emplacement of artificial fill derived from nearby cuts or quarries. Artificial fill is emplaced over native earth materials to provide level building pads and base rock for roadways.

3.0 ZONING

The subject site, according the General Plan, is zoned “general commercial,” and is located in an area consisting primarily of commercial and some residential properties. Figure 3 illustrates the zoning subdivision of the Site and its general vicinity.

4.0 SENSITIVE RESEPTOR SURVEY RESULTS

4.1 Department of Water Resources Data

On July 14, 2006, SOMA’s representative conducted a well search at the Department of Water Resources District Office. The purpose of this survey was to identify groundwater wells within a ½-mile radius of the Site that might be impacted by the Site’s contaminant plumes.

After reviewing the available records, fourteen properties were identified as having well(s) on their premises. Of the fourteen properties, five were reported to have irrigation wells. The remaining nine properties (locations) were reported to have monitoring or decommissioned wells.

All five irrigation wells were located to the northeast (up-gradient) from the Site. Figure 4 illustrates the locations of these sensitive receptors. Table 1 summarizes the results of the above well survey. Appendix B includes the Drillers' Logs obtained from the Department of Water Resources.

4.2 Alameda County Public Works Agency Data

On July 12, 2006, SOMA's representative submitted a written request in the form of a well completion report release agreement to the County of Alameda Public Works Agency for a well search in the vicinity of the Site. The purpose of this search was to identify any additional groundwater wells within a ½-mile radius of the Site that might be affected by the Site's contaminant plumes. "Raw" results of this inquiry are included in Appendix B. During this sensitive receptor study duplicate wells, which were already identified in the search of the Department of Water Resources records, were disregarded; as such, only the Alameda County well search results were summarized.

After reviewing the available records, eleven properties were identified as having well(s) on their premises. Of the eleven properties, two were reported to have an irrigation well; the remaining nine were reported to have decommissioned well(s), monitoring wells, or soil borings on their premises. From the two identified irrigation wells, one (No ***11***) is located up-gradient, and the other (No ***4***) is located approximately 2,000 feet down-gradient from the Site. According to the latest quarterly monitoring groundwater event, the groundwater flow direction is south to southeasterly. Figure 5 illustrates the locations of these sensitive receptors. Table 2 summarizes the results of this survey and shows additional information, like total depth and diameter, for each potential sensitive receptor.

4.3 Evaluation of the Sensitive Groups and Environments

The Alameda County Planning Department was contacted in an attempt to locate any sensitive receptors that could potentially be influenced by the Site's contaminant plume. Based on the information obtained from the Castro Valley General Plan, Castro Valley Creek, a tributary to the San Lorenzo Creek, is located approximately 200 feet to the southeast of the Site. Figure 6 shows the location of the creek in the relationship to the Site.

The section of the creek, adjacent to the Site and running from Castro Valley Boulevard north to Pine Street, was identified by the Alameda County Public Works Department as an improved channel with "Oak Riparian Woodland/ Wildlife Corridor." Appendix D shows the pictures and construction diagrams for the portion of the Castro Valley Creek adjacent to Castro Valley Boulevard. As seen in the pictures and contraction details, the creek's base flow channel is unlined and is approximately 15 to 20 feet wide. No special status species were reported to use the Castro Valley Creek or its vicinity as their habitat.

The public records also indicated the presence of seven potential sensitive receptors (facilities) within a ½-mile radius of the Site. These receptors consisted of educational facilities, like learning centers and schools. Figure 6 illustrates the locations and lists the names of the sensitive receptors. As illustrated in this figure, most of these receptors are located up or cross- gradient from the Site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the data from this survey, there is no immediate threat from the Site's groundwater contaminants to the individuals living or working in the vicinity of this site.

Based on SOMA's previous investigations and groundwater monitoring events, the plume exists along the south and southeastern half of the Site. It appears that the groundwater contaminants have migrated at least 200 feet off-site, in a southeasterly direction.

Figures 7 and 8 show the current Methyl tertiary Butyl Ether (MtBE) and gasoline plumes in the groundwater (as of April 27, 2006). Figure 9 shows the contaminant distribution of MtBE and gasoline during the most recent groundwater monitoring event, with respect to distance. From these figures it could be seen that, although the off-site wells show detectable levels of the above constituents, the concentration levels are relatively low and decrease notably with distance. Therefore, the down-gradient irrigation well (No ***4***), which is located over 2,000 feet away, will not likely be impacted by the contaminant plume in the immediate future.

Although Castro Valley Creek is a potentially sensitive environment, due to the fact that no special status species were reported to use this creek as their habitat and the creek's relative non-proximity to the Site, the likelihood of a significant impact from the Site's groundwater's contaminants is minimal.

Based on our findings, it was concluded that no irrigation or domestic wells, and no sensitive groups or environments, evaluated during this sensitive receptor survey and located within ½-mile radius have the potential to be impacted by the Site's contaminants at this time.

SOMA recommends the continued monitoring of the off-site wells to insure that no contamination reaches the domestic well.

6.0 REFERENCES

Alameda County Health Care Services, June 22, 2006. A Letter in Connection with Request for Conducting Sensitive Receptor Survey at 3519 Castro Valley Blvd., Castro Valley, CA."

Helley, E. J. and LaJoie, K. R., 1979. "Flatland Deposits of the San Francisco Bay Region, California". Geologic Survey Professional Paper 943.

SOMA Environmental Engineering, Inc. May 15, 2006. "Second Quarter 2006 Groundwater Monitoring Report Castro Valley Gasoline Service Station."

San Francisco Regional Water Quality Control Board, July 14, 2006. File review.

County of Alameda Public Works Agency, July 12, 2006. File review.

County of Alameda Planning Department. July 30, 2006. "Castro Valley General Plan."

Alameda County Assessor–Public Records. July 30, 2006. Parcel Maps

Figures

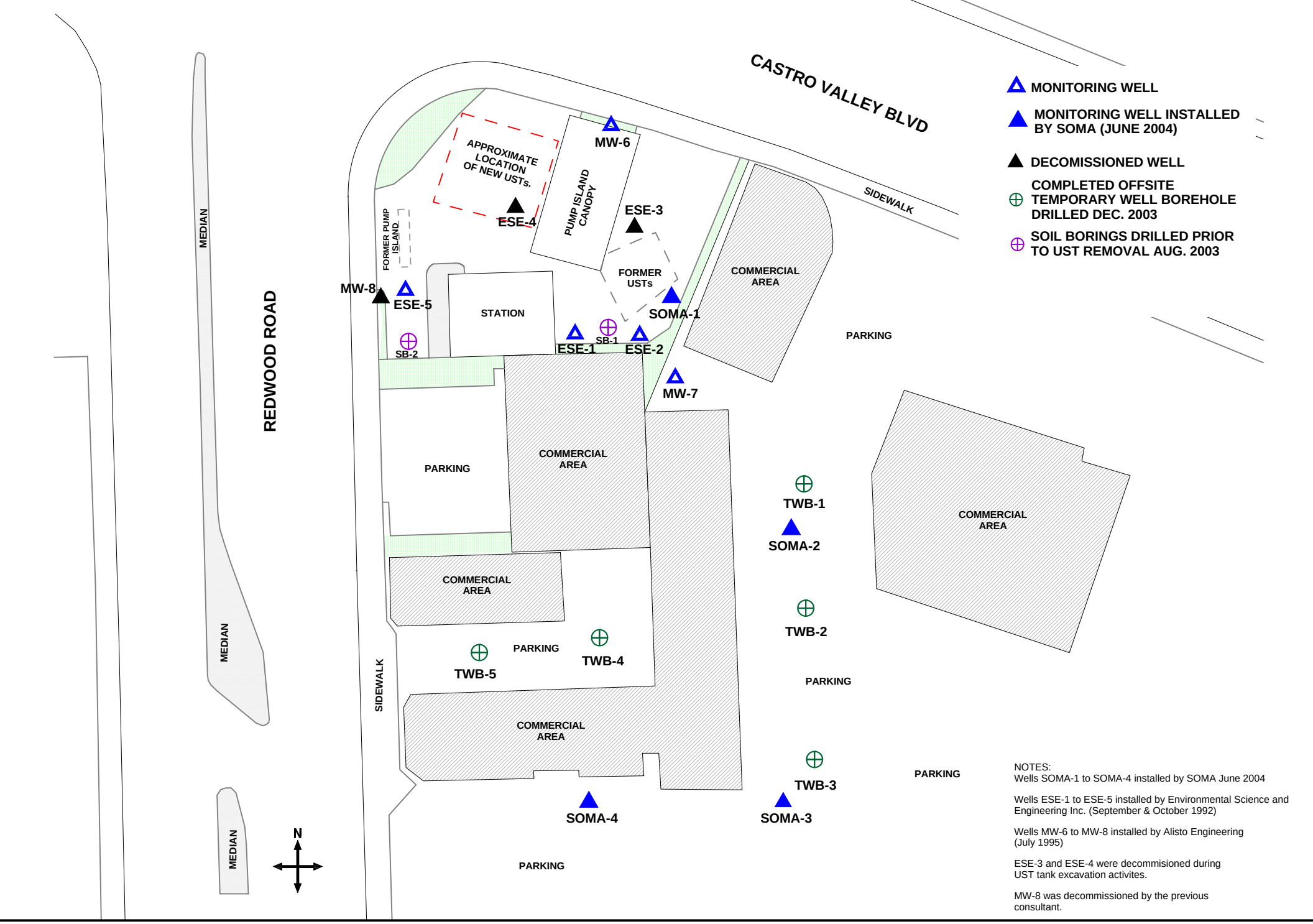
N

approximate scale in feet

0 60 120

Figure 1: Site vicinity map.

SOMA ENVIRONMENTAL ENGINEERING, INC.



NOTES:
Wells SOMA-1 to SOMA-4 installed by SOMA June 2004

Wells ESE-1 to ESE-5 installed by Environmental Science and Engineering Inc. (September & October 1992)

Wells MW-6 to MW-8 installed by Alisto Engineering (July 1995)

ESE-3 and ESE-4 were decommisioned during UST tank excavation activites.

MW-8 was decommissioned by the previous consultant.

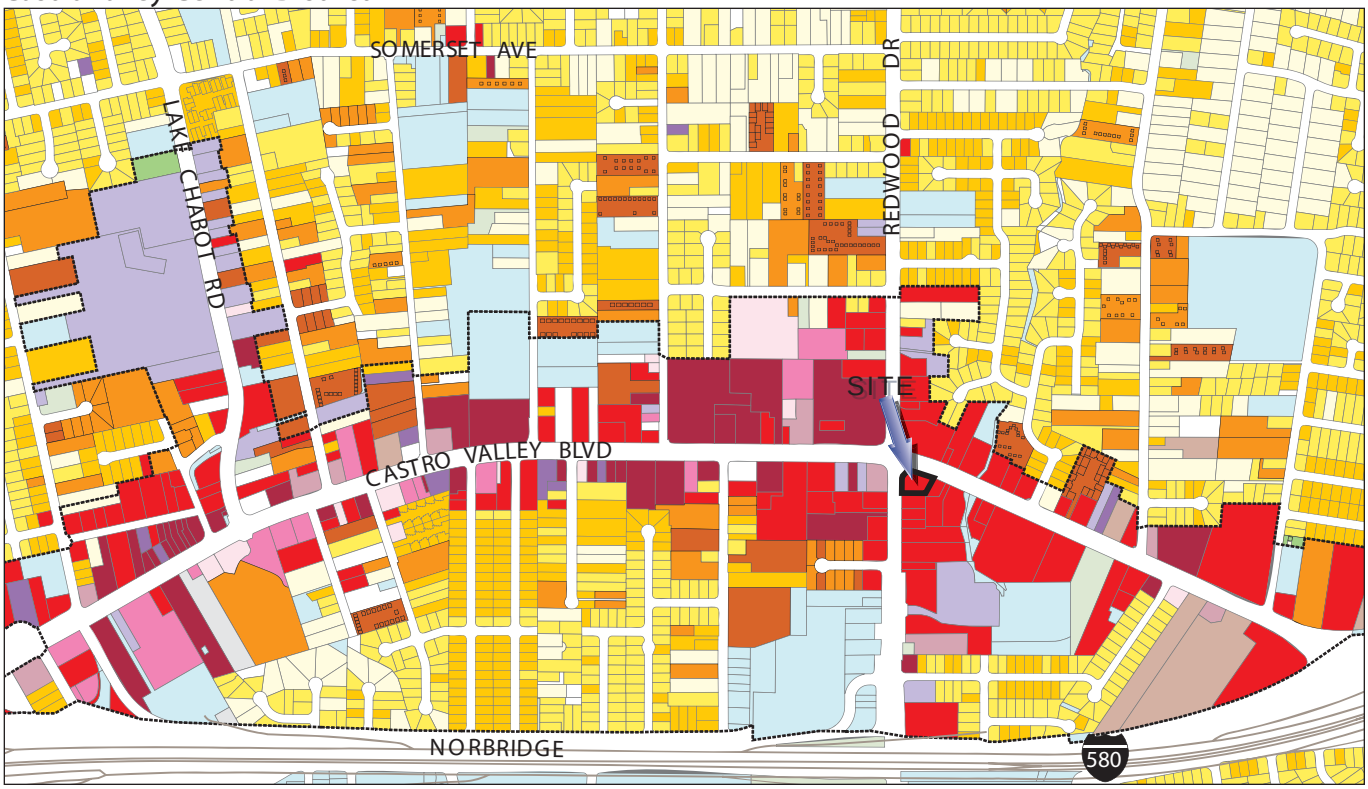
approximate scale in feet

0 40 80

Figure 2: Site map showing locations of monitoring wells, decommissioned wells, offsite temporary well boreholes.

SOMA ENVIRONMENTAL ENGINEERING, INC.

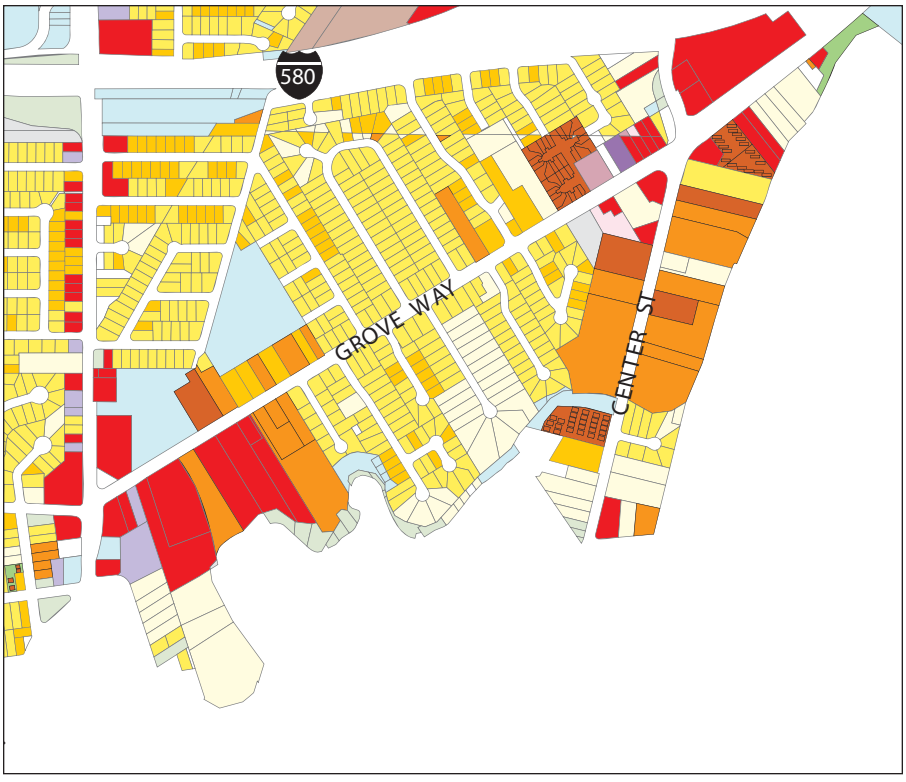
Castro Valley Central District



- Residential 0-4 du/ac — Large Lot Single Family
- Residential 5-8 du/ac — Single Family
- Residential 9-17 du/ac — Town Houses & Low Density Apartments
- Residential 18-30 du/ac — Medium Density Apartments
- Residential over 30 du/ac — High Density Apartments
- Mobile Home Parks
- General Commercial — Personal Services, Financial & Real Estate, etc
- Retail Commercial
- Restaurants & Entertainment
- Automotive Service, Sales & Parts
- Mixed Use
- Office
- Medical Dental
- Light Industrial & Storage
- Public/Institutional
- Park/Open Space
- Other/Unclassified
- Vacant
- Castro Valley General Plan Area

N W E S

Grove Way/Center St/Redwood Dr/South of 580

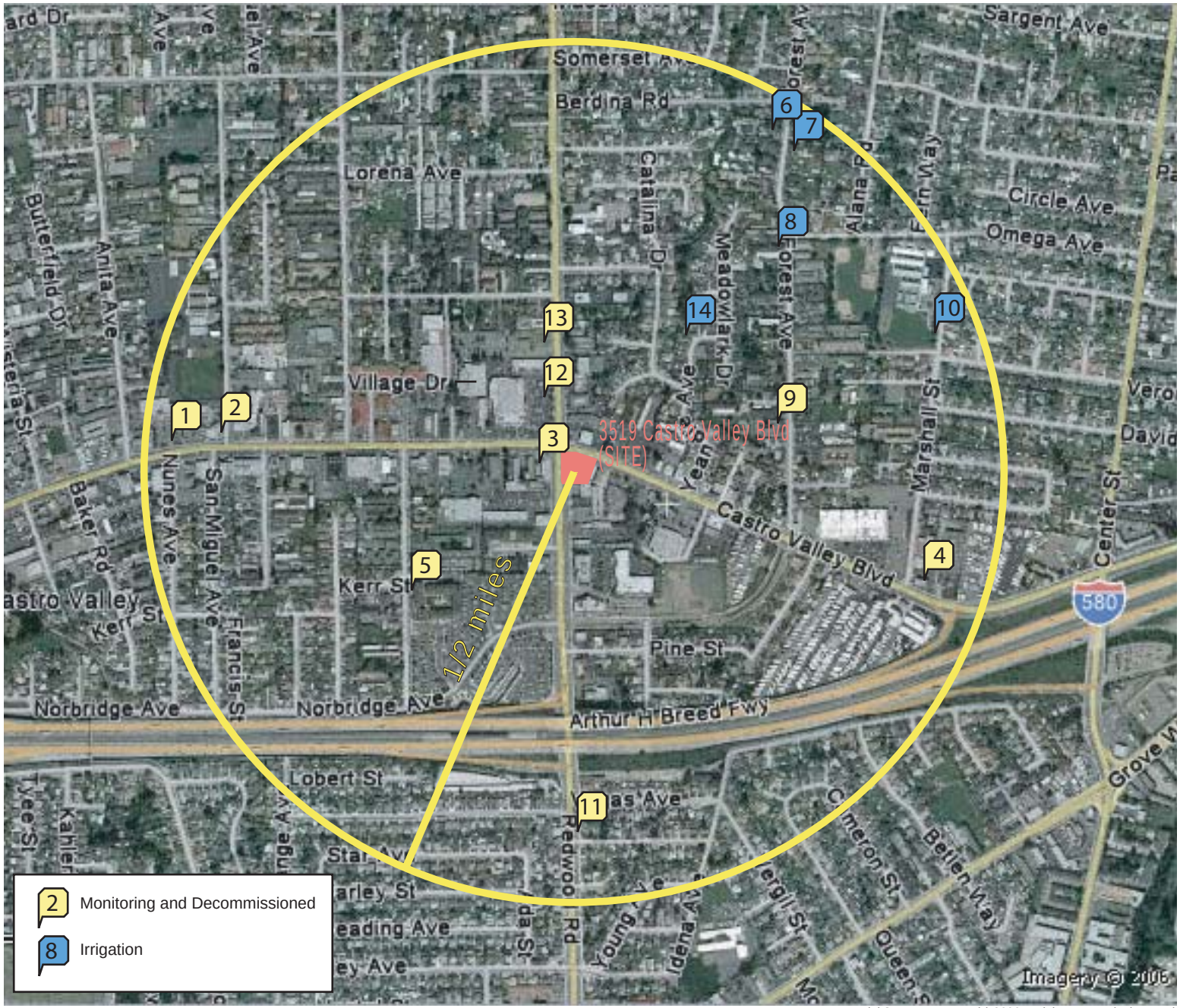


Source: Castro Valley General Plan (Figure 2-4b) Alameda County Community Development Agency, 2004; and Dyett & Bhatia fieldwork.

0 500 1000 2000 FEET

Figure 3: Zoning Map

SOMA ENVIRONMENTAL ENGINEERING, INC.



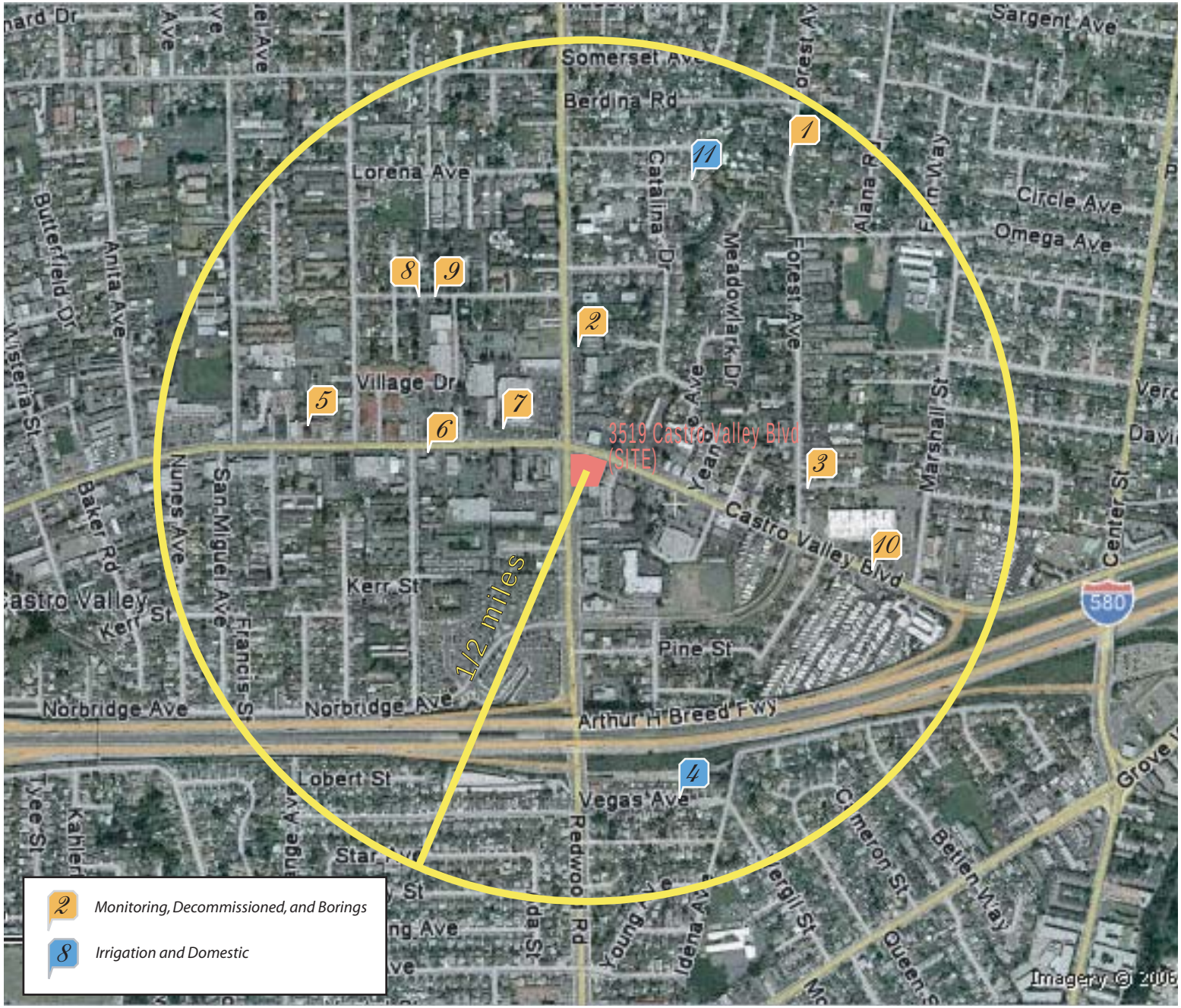
Aerial Source: Imagery (c) 2006 Aerials Express (Yahoo Inc.)

approximate scale

0 0.25 mile 0.5 mile

Figure 4: Sensitive Receptor Survey Map Based on the Data Obtained from the Department of Water Resources

SOMA ENVIRONMENTAL ENGINEERING, INC.



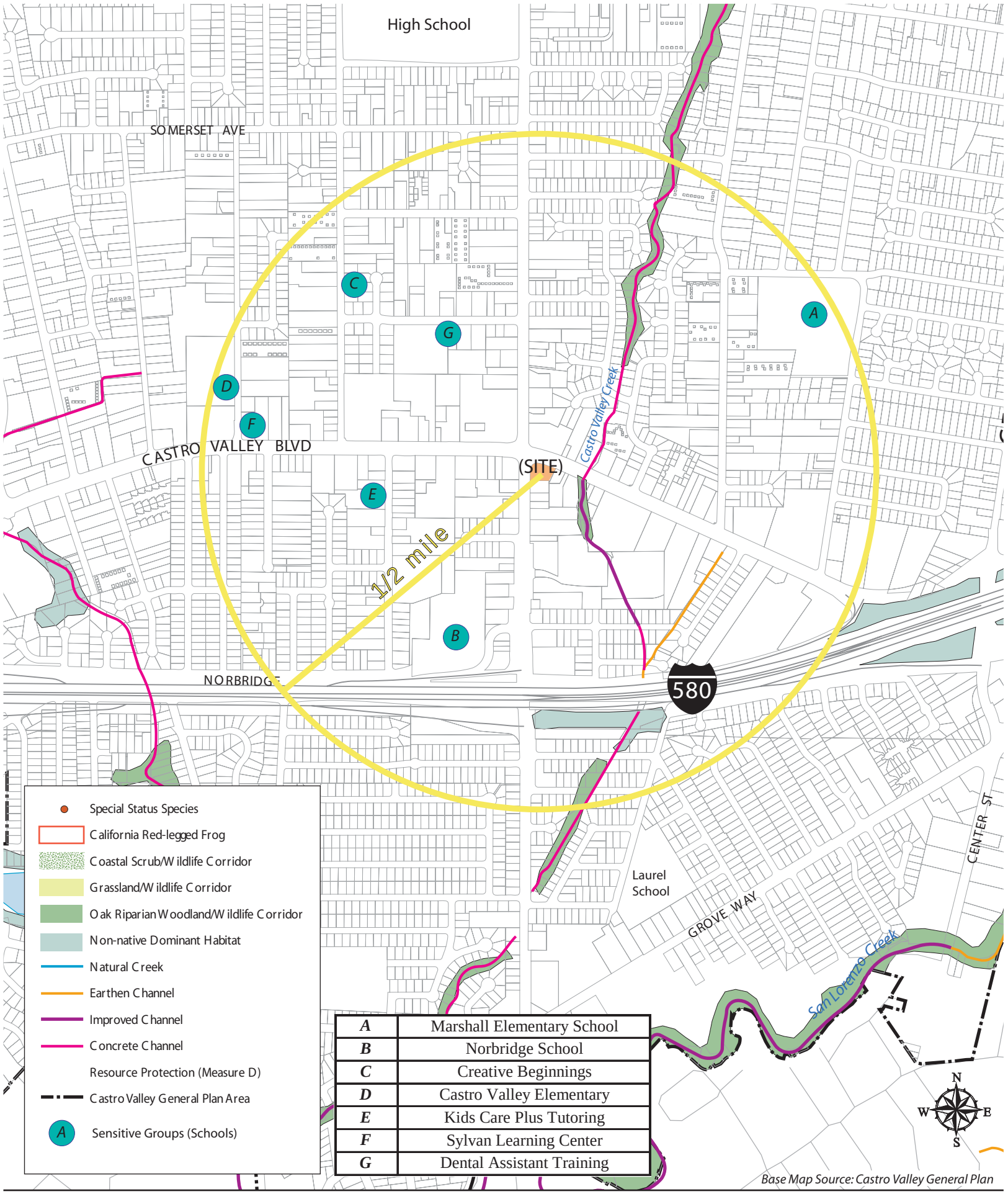
Aerial Source: Imagery (c) 2006 Aerials Express (Yahoo Inc

approximate scale

0 0.25 mile 0.5 mile

Figure 5: Sensitive Receptor Survey Map Based on the Data Obtained from the Alameda County Public Works Agency

SOMA ENVIRONMENTAL ENGINEERING, INC.



A	Marshall Elementary School
B	Norbridge School
C	Creative Beginnings
D	Castro Valley Elementary
E	Kids Care Plus Tutoring
F	Sylvan Learning Center
G	Dental Assistant Training

Base Map Source: Castro Valley General Plan

approximate scale

0 0.25 miles

Figure 6: Receptor Survey of Sensitive Groups and Environmentls

SOMA ENVIRONMENTAL ENGINEERING, INC.

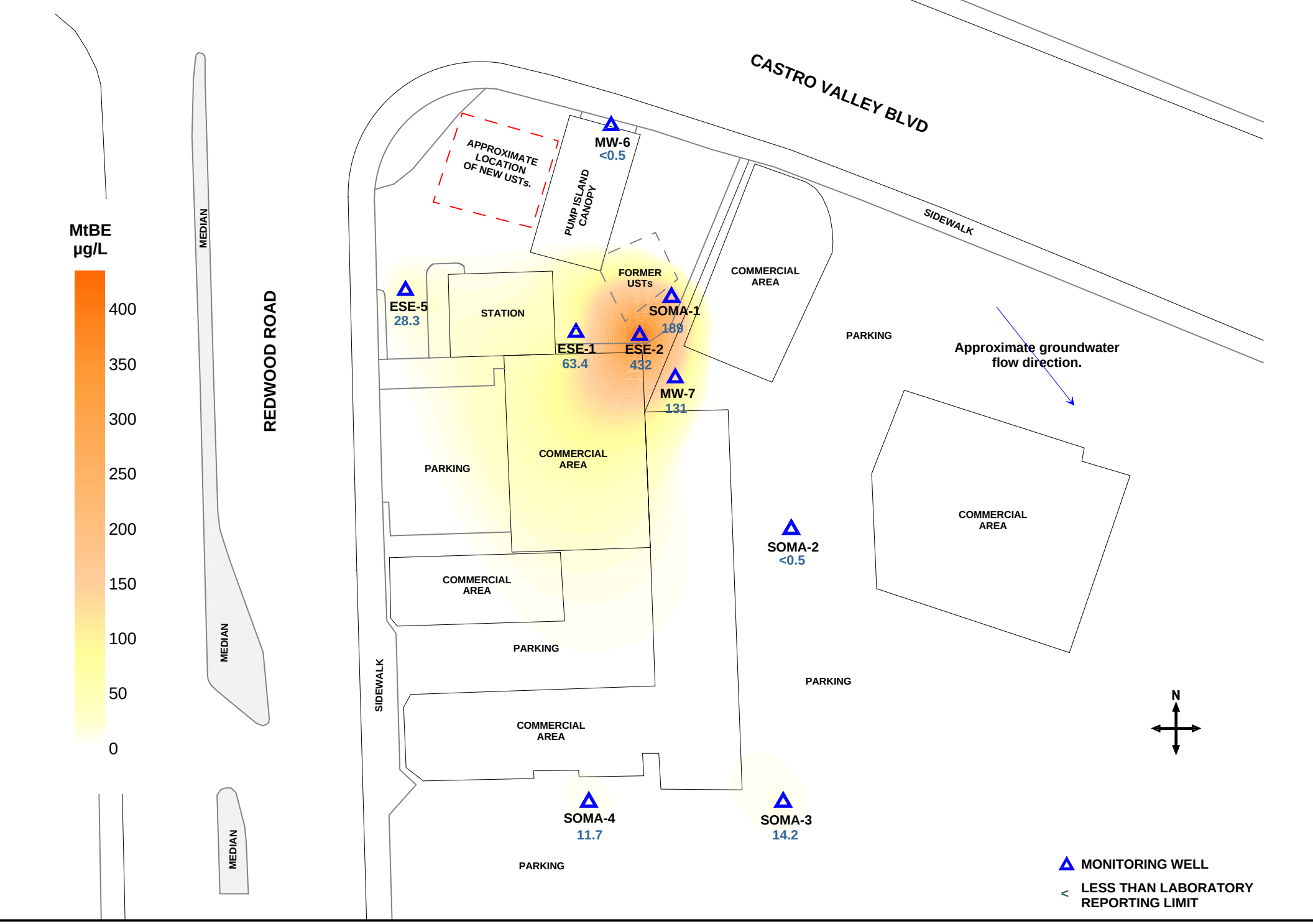


Figure 7: Contour map of MtBE concentrations in groundwater (EPA Method 8260B).
April 27, 2006.

ENVIRONMENTAL ENGINEERING, INC.

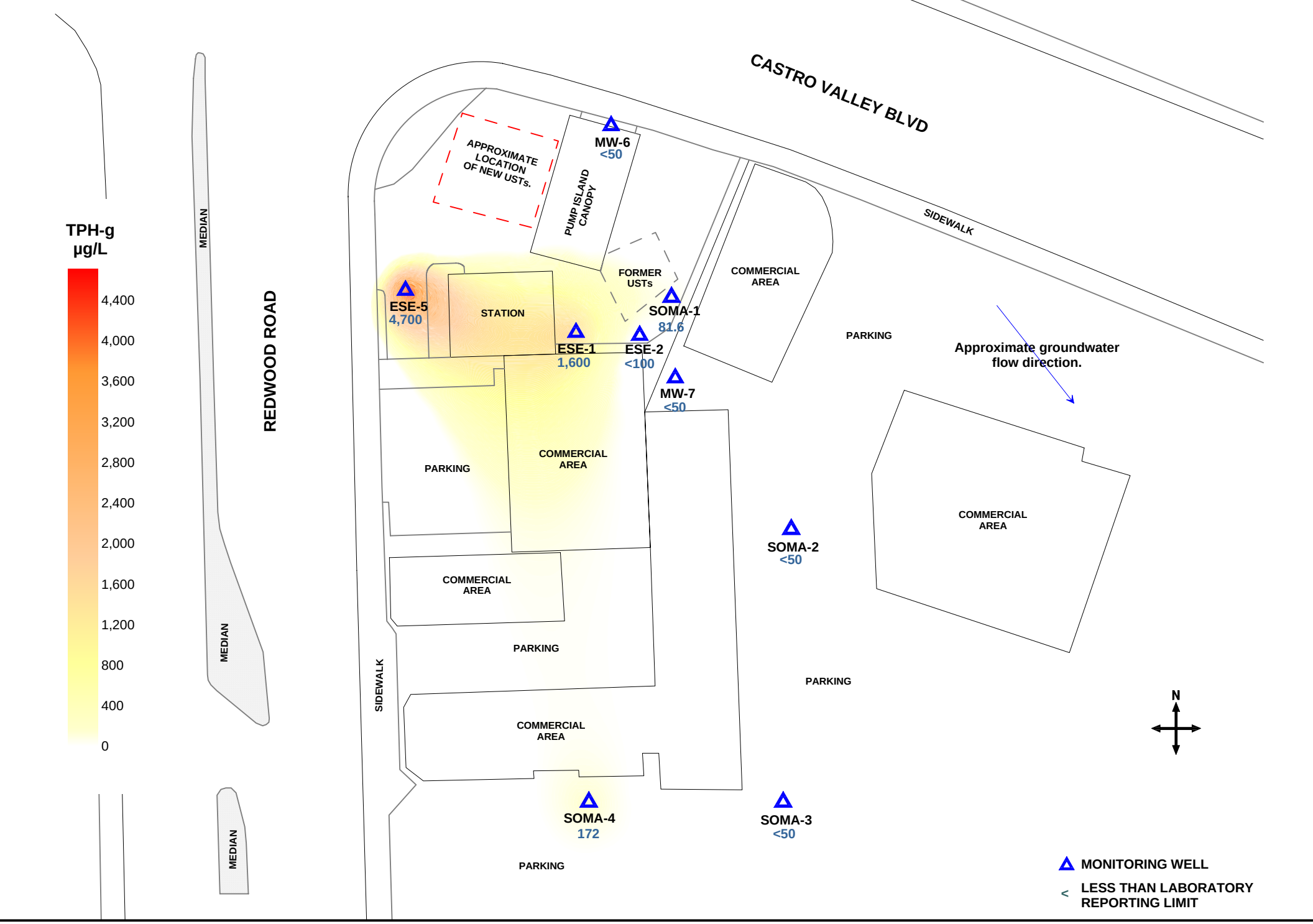
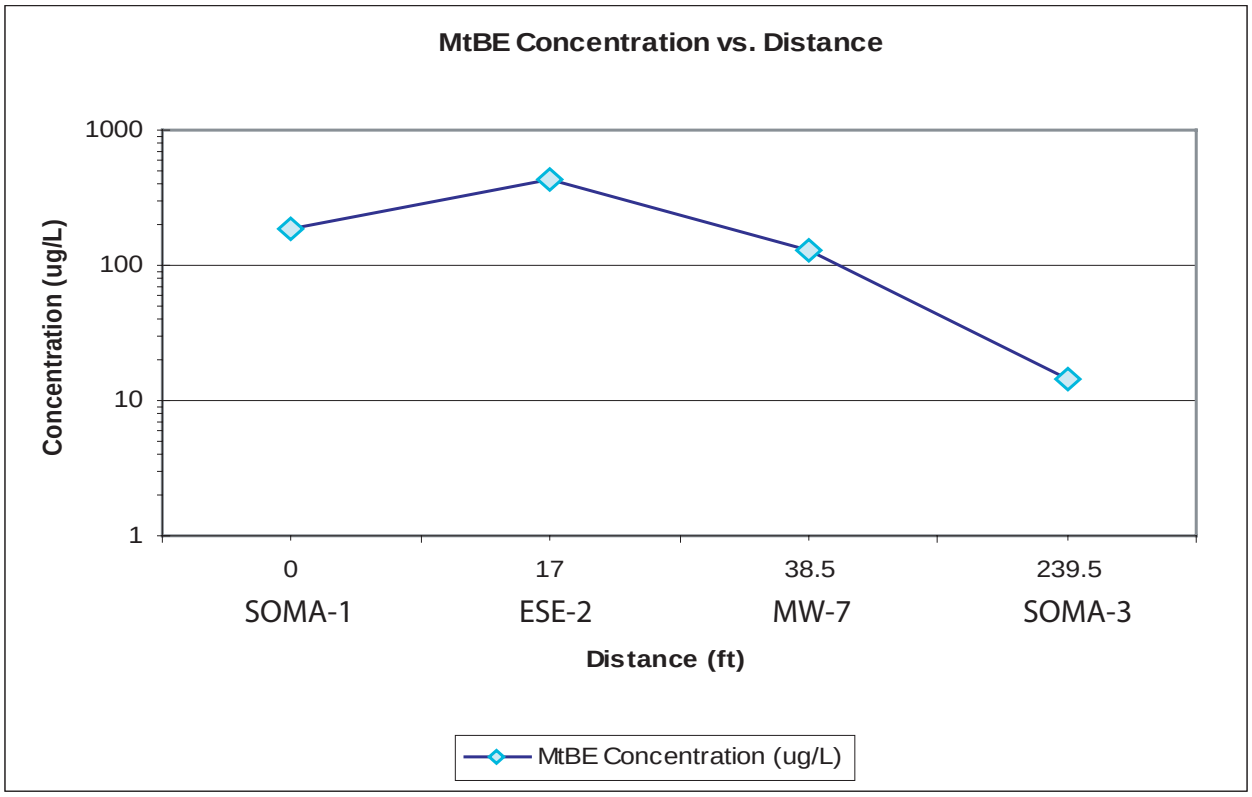


Figure 8: Contour map of TPH-g concentrations in groundwater.
April 27, 2006.

ENVIRONMENTAL ENGINEERING, INC.



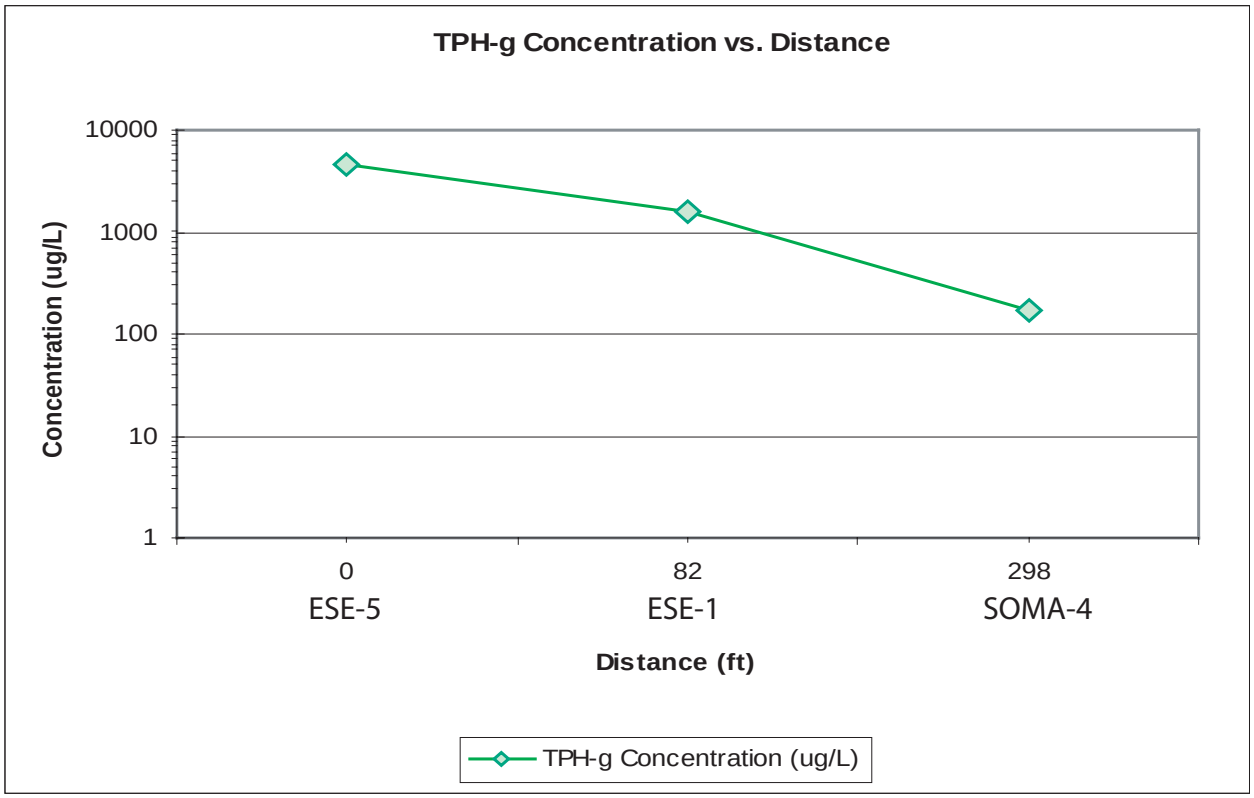


Figure 9: Concentration Trend vs. Distance. April 2006.

Tables

Table 1

Sensitive Receptor Survey Summary (Department of Water Resources)

3519 Castro Valley Blvd, Castro Valley

Map ID	Address		Use
1	2973	Castro Valley BLVD, Castro Valley	Unknown
2	3098	Castro Valley BLVD, Castro Valley	Monitoring
3	3495	Castro Valley blvd, Castro Valley	Monitoring
4	3940	Castro Valley blvd, Castro Valley	Monitoring
5	21000	Wilbeam Ave, Castro Valley	Monitoring
6	19861	Forest Ave, Castro Valley	Irrigation
7	19910	Forest Ave, Castro Valley	Irrigation
8	20115	Forest Ave, Castro Valley	Irrigation
9	20551	Forest Ave, Castro Valley	Unknown
10	20287	MARSHALL ST, Castro Valley	Irrigation
11		Redwood Rd and Watson St	Destruction
12	20629	Redwood Rd, Castro Valley	Monitoring
13	20405	Redwood Road, Castro Valley	Monitoring
14	20283	Yeandle Ave, Castro Valley,	Irrigation
Wells Outside the 1/2 Mile Radius			
15	22447	Charlene Way, Castro Valley	Irrigation
16	1792	Crescent Avenue, Castro Valley	Monitoring
17	2146	Grove Way, Castro Valley	Extraction
18	2416	Grove Way, Castro Valley	Domestic
19	22315	Redwood Rd, Castro Valley	Monitoring
20		GROVE WAY AT REDWOOD RD, Castro Valley	Monitoring
21	4589	JAMES AVE, Castro Valley	Irrigation
22	18878	Redwood Rd, Castro Valley	Test well

Table 2
Sensitive Receptor Survey Summary (Alameda County Public Works Agency)
3519 Castro Valley Blvd, Castro Valley

Map ID	Well Count	Address	Owner	Drilldate	TD	Diam	Use
1	1	19945 FOREST	MR. WEHE	3/78	51	8	DES
2	2	20450 REDWOOD RD	EXXON OIL	8/77	50	0	Unknown
3	3	20680 FOREST AV	G.G. PAUL KASMER	Oct-73	20	0	DES
4	4	2633 VEGAS AV	ANNA WEEDEN	4/77	24	4	Irrigation
5	5	3234 Castro Valley Blvd	Mitzi Stockel	Apr-90	8	2	BOR
	6	3234 Castro Valley Blvd	Mitzi Stockel	Apr-90	16	2	Monitoring
	7	3234 Castro Valley Blvd	Mitzi Stockel	Apr-90	16	2	Monitoring
	8	3234 Castro Valley Blvd	Mitzi Stockel	Apr-90	16	2	Monitoring
	9	3234 Castro Valley Blvd	Mitzi Stockel	May-90	23	2	Monitoring
	10	3234 Castro Valley Blvd	Mitzi Stockel	May-90	20	2	Monitoring
6	11	3369 Castro Valley Blvd	Chevron USA	Oct-93	20	2	Monitoring
	12	3369 Castro Valley Blvd	Chevron USA	Oct-93	20	2	Monitoring
	13	3369 Castro Valley Blvd	Chevron USA	Oct-93	20	2	Monitoring
	14	3369 Castro Valley Blvd	Chevron USA	Oct-93	20	2	Monitoring
7	15	3430 Castro Valley Blvd	Goodyear	Dec-96	16	2	Monitoring
	16	3430 Castro Valley Blvd	Goodyear Tire & Rubber Co	9/94	20	2	Monitoring
	17	3430 Castro Valley Blvd	Goodyear Tire & Rubber Co	9/94	20	2	Monitoring
	18	3430 Castro Valley Blvd	Goodyear Tire & Rubber Co	9/94	20	2	Monitoring
8	19	3533 JAMISON WAY	R. NAHAS CO.	?	25	5	DES
	20	3533 JAMISON WAY	R. NAHAS CO.	?	20	5	DES
9	21	3559 JAMISON WAY	R. NAHAS CO.	Dec-75	56	0	DES
10	22	3889 Castro Valley Blvd	VIP Service (MW1)	Nov-93	20	2	Monitoring
	23	3889 Castro Valley Blvd	VIP Service (MW2)	Nov-93	20	2	Monitoring
	24	3889 Castro Valley Blvd	VIP Service (MW3)	Nov-93	20	2	Monitoring
11	25	4057 STEVENS ST	R. FORQUEN	?	70	8	Irrigation
Wells Outside the 1/2 Mile Radius							
NA	27	B & A ST	BENNCHAMP	9/46	512	10	Domestic
NA	28	1768 Knox St	John Higginbotham	1/94	50	5	Domestic
NA	29	1783 KNOX STREET	NANCY C. CARTER	Oct-88	0	60	DES
NA	30	22178 N. 6TH STREET	WAYNE ONSTOTT	Jul-89	30	8	Domestic
NA	31	21195 Center Street	Office of State Architect	1/90	0	6	BOR*
	32	21195 Center Street	Office of State Architect	1/90	0	10	BOR*

Note:

NA- Not Applicable
MON- Monitoring
IRR- Irrigation
DOM-Domestic
DES-Destroyed
BOR- Boring
TD-Total depth

Appendix A

Parcel Maps

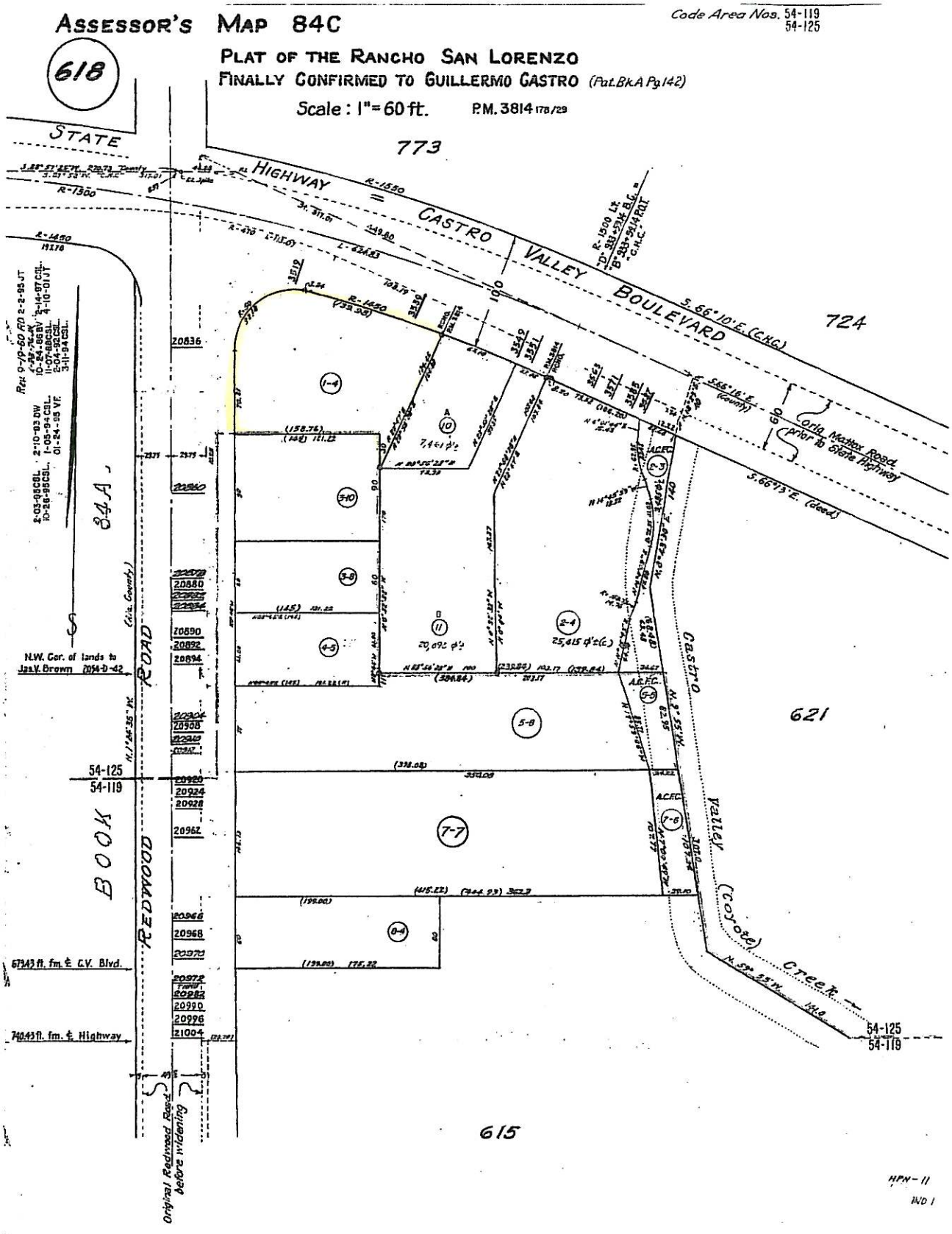
ASSESSOR'S MAP 84C

Code Area Nos. 54-119
54-125

618

PLAT OF THE RANCHO SAN LORENZO
FINALLY CONFIRMED TO GUILLERMO CASTRO (Pat. Bk A Pg 142)

Scale : 1" = 60 ft. P.M. 3814 178/29



HPN - 11
IND 1

A.C.M. 12

Ref. R/S ARB. NO. 169A (R.S. 8L5 Pg. 4)

Assessor's Map 84A

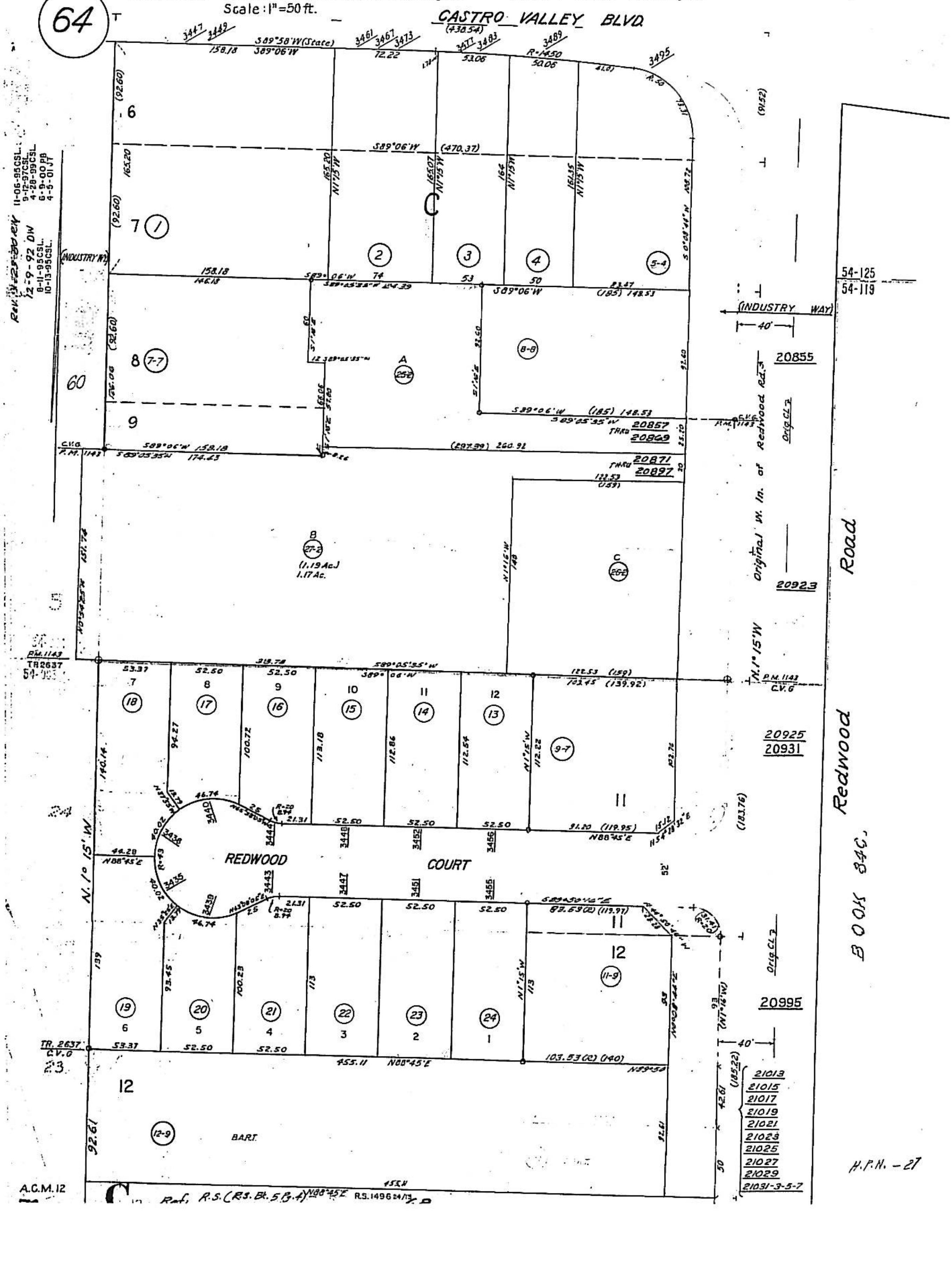
Castro Valley Gardens (Bk.28 Pg.57)

Scale: 1" = 50 ft.

80 P.M. 1143 (Bk. 79 Pg 82)

TRACT 2637 (Bk.48 Pg.86)

CODE AREA NOS.
54-119
54-125



Appendix B

Drillers' Logs
(Department of Water Resources)

CONFIDENTIAL

07/12/2006 09:02 5106379335 ALAMEDA COUNTY DEH PAGE 02/02

Jul 11 06 12:59p p.2

901 P street
3rd floor

STATE OF CALIFORNIA - THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF WATER RESOURCES

CENTRAL DISTRICT	NORTHERN DISTRICT	SAN JOAQUIN DISTRICT	SOUTHERN DISTRICT
901 P Street	2440 Main Street	3374 E. Shields Ave Ste A7	770 Fairmont Avenue
Sacramento, CA 95814	Red Bluff, CA 96080	Fresno, CA 93726	Glendale, CA 91203
(916) 651-9702	(530) 529-7300	(559) 230-3300	(818) 500-1645 ext. 2??
(916) 651-9729 (Fax)	(530) 529-7322 (Fax)	(559) 230-3301 (Fax)	(818) 543-4604 (Fax)

WELL COMPLETION REPORT RELEASE REQUEST AND CONFIDENTIALITY AGREEMENT REGULATORY-RELATED ENVIRONMENTAL CLEANUP STUDY

Well Completion Reports associated with wells located within two miles of an area affected or potentially affected by a known unauthorized release of a contaminant will be made available upon request to any person performing an environmental cleanup study associated with the unauthorized release, if the study is conducted pursuant to a regulatory agency order (Water Code Section 13752).

Requests must be made on the form below, signed and submitted to the appropriate DWR District Office. Please provide the township, range, and section of the property where the study is to be conducted. Attach a map or a sketch with a north arrow, and provide as much identifying information requested below as possible; additional paper may be attached if necessary.

By signing below, the requester acknowledges and agrees that, in compliance with Section 13752, the information obtained from these reports will be kept confidential and will not be disseminated, published, or made available for inspection by the public. Copies obtained must be stamped CONFIDENTIAL and kept in a restricted file accessible only to authorized personnel. These reports must not be used for any purpose other than for the purpose of conducting the environmental cleanup study.

Project Name: BP

County: Alameda

Street Address: 3519 Castro Valley Blvd.,

City: Castro Valley

Township, Range, and Section:
(Include entire study area and a map that shows the area of interest.)

Radius: 1/2 miles (2640 ft)
(maximum 2 miles)

SOMA Environmental Eng. Requester's Company	ACEHS Regulatory Agency Name
Elena Manzo Requester's Name (please print)	Steven Plunkett Agency Contact Name (please print)
6620 Owens Drive, Suite A Address	1131 Harbor Bay Parkway, Suite 250 Address
Pleasanton, CA 94588 City, State, and Zip Code	Alameda, CA 94501 City, State, and Zip Code
Signature: [signature]	Signature: [signature]
Title: GIS Specialist	Title: Hazardous Materials Specialist
Telephone: (925) 734-6400	Telephone: (510) 567-6700
FAX: (925) 734-6401	FAX: (510) 337-9335
Date: July 1 , 2006	Date:
E-mail: emanzo@somaenv.com	E-mail: steven.plunkett@acgov.org

07 July 2006

wcr request-conf [illegible]_20060703.doc

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

ORIGINAL
File Original, Duplicate and Triplicate with the
DIVISION OF WATER RESOURCES
P. O. BOX 1078
SACRAMENTO 5, CALIFORNIA

Mathews Nursery

WATER WELL DRILLERS REPORT

(Sections 7074, 7077, 7078, Water Code)

159

SHEET 2

01-1385

Do Not Fill In

State Well No.
Other Well No.
Region

(7) Perforations:
Type of perforator used Mills
Perforated 60 ft. to 70 ft. Hole size 1/8 x 3 No. of holes 4 - every 9"

(8) Water levels:
Depth at which water first encountered 28 ft.
Depth to water before perforating 80 ft.
Depth to water after perforating 28 ft.
Note any change in water level while drilling
None

(9) Well pumping test:
Date of test By whom
Depth to water when test started ft.
G.P.M. at beginning of test
Drawdown from standing level ft.
G.P.M. at completion of test
Drawdown at completion of test ft.
Length of time tested
Temperature of water
Was gas present in water? ☐ Yes ☑ No

(10) General:
Was well gravel packed? None Size of rock Thickness of pack
Was a surface sanitary seal provided? None
Were any strata sealed against pollution? ☐ Yes ☑ No If yes, attach detailed description.
Strata sealed
Was analysis made of water? ☐ Yes ☑ No If yes, attach copy.
Was electric log made of well? ☐ Yes ☑ No If yes, attach copy.
If well abandoned, was it plugged and sealed?
Method of plugging and sealing

FOR OFFICIAL USE ONLY

(11) Location:

North

1 MILE

Section No.
Township
Range
Base & Meridian
Show location of well in Section, thus (X)
Distances to section lines from well, N or S ft. and E or W ft.
Show location of nearest known well, thus (O)
Distance to nearest known well ft.

(12) Time of work:
Work started date Aug 3 Completed date 18
Date of this report Sept. 18-53

WELL DRILLER'S STATEMENT:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

[SIGNED] R. L. DeLuccia
Well Driller

By
License No. 116022 Classification C-57
Dated Sept. 18, 1953

D.W.R. Form No. 188 REGIONAL WATER POLLUTION CONTROL BOARD COPY

01-1568

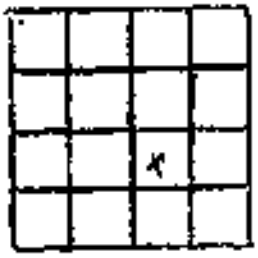
Report No. 152

Owner Martin Nursery

Pump No. Bx 1084

Meter No.

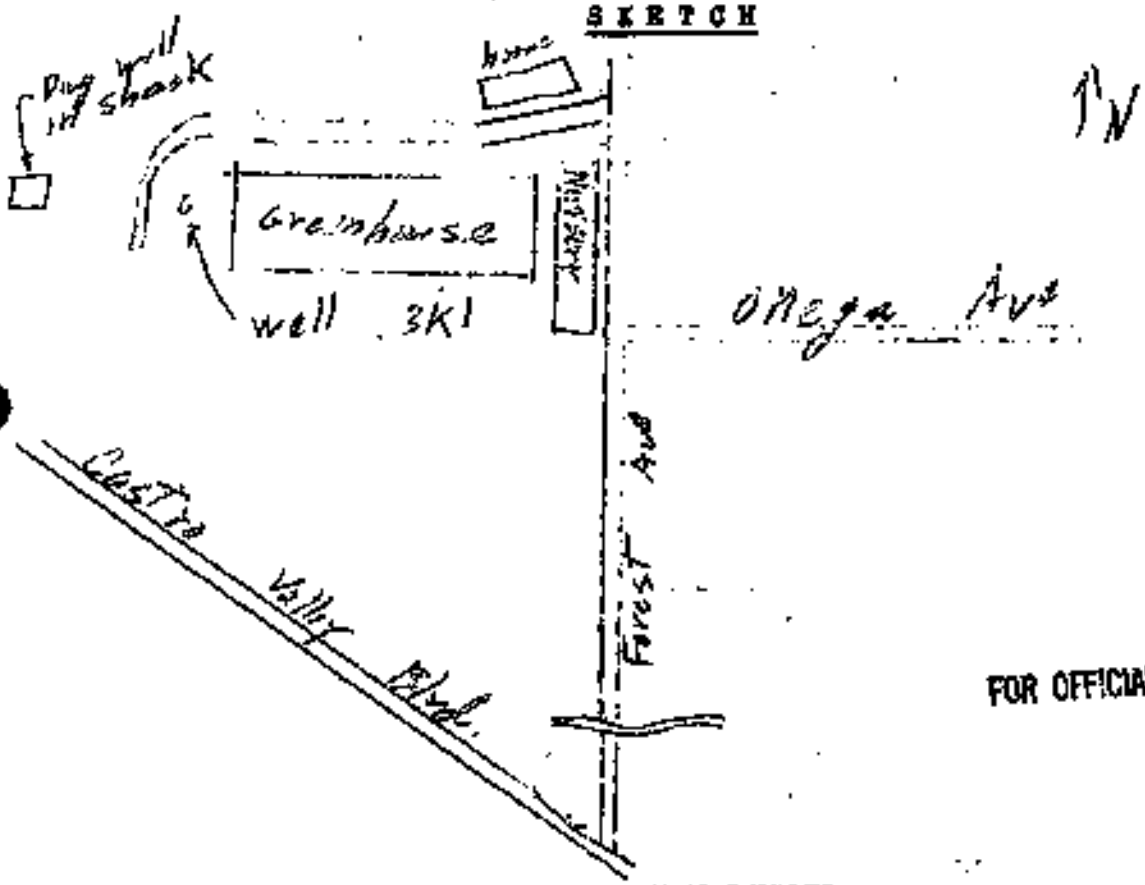
Region 2 ; County Alameda



Township 3S , Range 2W , Section 31 , MD B&M.

1300 ft. north, 2400 ft. west from southeast corner of Section.

SKETCH



FOR OFFICIAL USE ONLY

DESCRIPTION OR REMARKS

In Castro Valley 0.4 mi N/o Castro Valley Rd. on Forest Ave to Martin Nursery on W side of Rd & well W/s Greenhouses.

Checked by R F Ziaf Date Sept 11, 1951

REGION

COUNTY

FIELD

DEPARTMENT OF WATER RESOURCES

DEPARTMENT OF PUBLIC WORKS

STATE OF CALIFORNIA

WELL LOG

BASIN 3 [illegible]

STATE WELL NO. 3S/2W-6R M.D.B.&M.

OTHER NO.

01-1300

[redacted]

LOCATION

OWNER Martin Nursery ADDRESS Forest Ave. Castro Valley

DRILLED BY E. De Lucchi ADDRESS

DRILLING METHOD GRAVEL PACKED DATE COMPLETED

SIZE OF CASING DEPTH STRUCK WATER AT

PERFORATIONS 62-78 SIZE No.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSES

SURFACE ELEV. DATUM SOURCE OF INFORMATION

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %	
0 - 5		soil			
5 - 15		yellow clay			
15 - 24		gravel			
24 - 29		yellow clay			
29 - 55		brown clay			
55 - 66		sand and gravel			
66 - 70		shale			

FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY DATE SHEET 1 OF

FORM [illegible]

DIVISION OF WATER RESOURCES
DEPARTMENT OF PUBLIC WORKS
STATE OF CALIFORNIA

WELL LOG

MAP NO. 3S/2W-30S

COUNTY S. Alameda

YEAR

STATE WELL NO. 3S/2W-30S

01-1383

LOCATION 20551 Forest Avenue, Castro Valley

OWNER Howard W. Burkhart ADDRESS

DRILLED BY Basanti ADDRESS

DRILLING METHOD GRAVEL PACKED DATE COMPLETED

SIZE OF CASING 8" DEPTH STATIC WATER AT

PERFORATIONS SIZE NO.

WATER LEVEL BEFORE PERFORATING AFTER

TEST DATA: DISCHARGE G. P. M. DRAWDOWN FT. HOURS RUN

OTHER DATA AVAILABLE: WATER LEVEL RECORD ANALYSIS

SURFACE ELEV. DATUM SOURCE OF INFORMATION ARGO PUMP

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %	
	0 - 3	top soil			
	3 - 32	yellow clay (sandy)			
	32 - 57	sandy blue clay			
		WL 11			
		Perf 6' blank at bottom remainder perf			

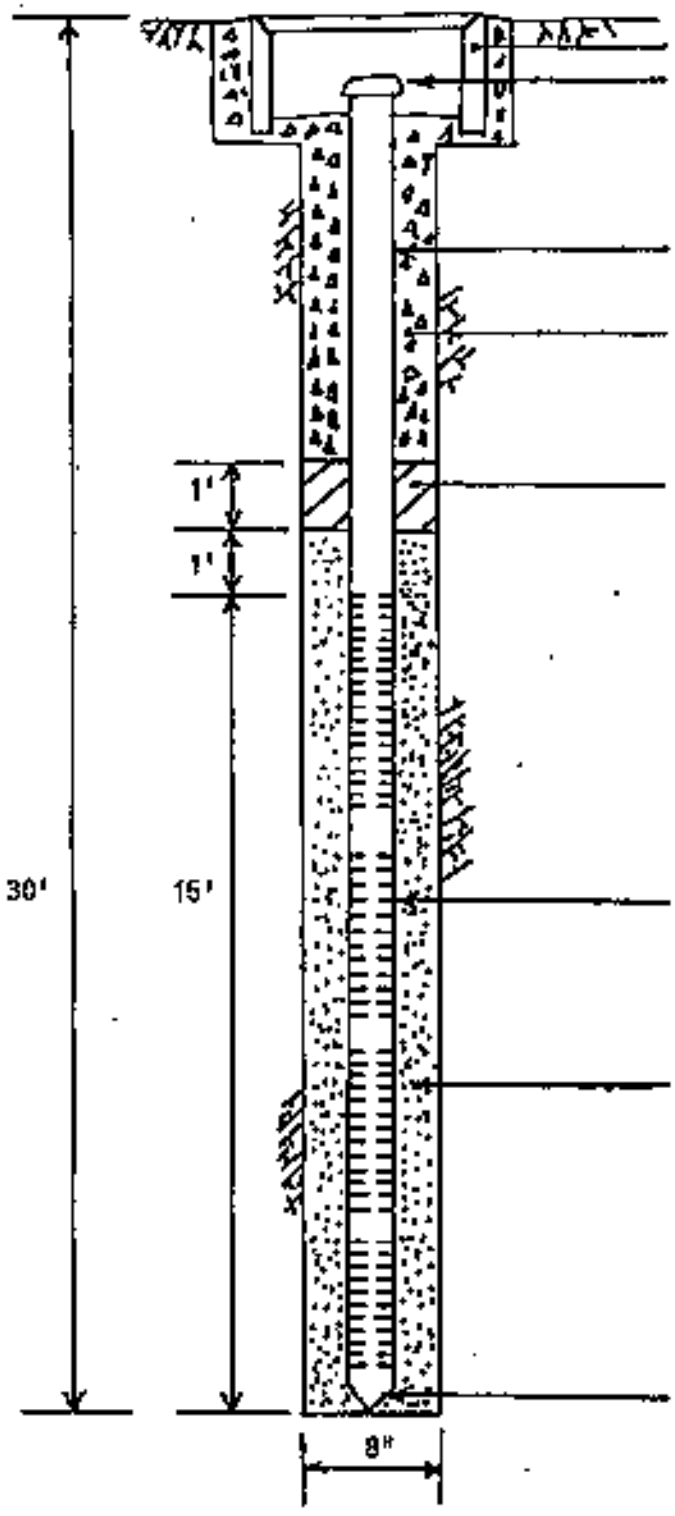
FOR FIELD COPIES USE ALTERNATE LINES

LOG OBTAINED BY WF DATE 2/20/50 SHEET 1 OF

Form 243. [illegible]

Q-430
3S/2W 3N 1
Inv/Add

MONITORING WELL MW-1



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

1639

LIC # 07-501384
-01-850M

LOCATION OF BORING	JOB NO.	CLIENT	LOCATION
SEE SITE MAP		ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD:	BORING NO.
8" HOLLOW STEM AUGER	MW-1
	SHEET 1 OF 2
SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS	DRILLING

					START	FINISH
WATER LEVEL					TIME	TIME
TIME					0810	1000
DATE					DATE	DATE
CASING DEPTH					8/11/89	8/11/89

DATUM   ELEVATION

SURFACE CONDITIONS: PLANTER AREA

SAMPLER TYPE	BLOWS / INCHES DRIVEN	DEPTH OF CASING	INCHES DRIVEN	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH	DESCRIPTION
						0		TOP SOIL
						1		DK GREY CLAY (CL), SLIGHTLY MOIST, SILTY, SLIGHT PLASTICITY
						2		
						3		
						4		GREY/BRN CLAY (CL), SLIGHTLY MOIST, VARIEGATED COLOR, SILTY, CRUMBLY
2" SPLIT	18/18			5/8/11	0845	5		
						6		(NO ODOR)
						7		BRN CLAYEY SAND (SC), VERY MOIST, OCCASIONAL GRAVEL TO 1/2" (ANGULAR & SUB-ANGULAR), SAND FINE TO MEDIUM GRAIN, DENSE, VARYING CLAY CONTENT
2" SPLIT	18/18			6/9/13	0850	8		
						9		(SLIGHT GASOLINE ODOR)
2" SPLIT	18/18			3/4/9	0858	10		GREY/BRN CLAY (CL), SLIGHTLY MOIST, MOTTLED WITH BLACK STREAKS (ORGANIC MATTER), STIFF
						11		
						12		(SLIGHT GASOLINE ODOR)
2" SPLIT	18/18			4/7/7	0900	13		BRN CLAYEY SAND (SC), SLIGHTLY MOIST, VERY CLAYEY
						14		(NO ODOR)
						15		GREY CLAY (CL), NEARLY DRY, VERY DENSE, MODERATE PLASTICITY, SILTY, STIFF
2" SPLIT	18/12			6/9/13	0910	16		
						17		
						18		
						19	▼	GREY SILT (SM), SATURATED, SLIGHTLY CLAYEY, DENSE
						20		

DRILLING CONTR.
CHKD BY
DATE

[illegible] 97-1493 001

Location of Boring	Job No.	Client	Location
		ADOBE PLAZA	CASTRO VALLEY

Drilling Method	
Sampling Method	
Boring No.	MW-1
Sheet	2 of 2
Drilling Start Time / Date	
Drilling Finish Time / Date	

Water Level				
Time				
Date				
Casing Depth				

Datum: | Elevation:

Surface Conditions:

Sampler Type	Blows / Recovery	Depth of Casing	Sample No. / Sample Depth	Blows/ft Sampler	TIME	Depth in Feet	Soil Graph	Description
						20		
2" SPLIT	18/18			11/7/[illegible]	0925	1		GREY SILT (SM), SATURATED, SLIGHTLY CLAYEY, DENSE
						2		
						3		
						4		
						5		SAME, VARYING CLAY CONTENT
						6		
						7		
						8		
						9		
						30		TOTAL DEPTH = 30' BLS
						1		15' SCREEN 15' BLANK
						2		
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						0		

Drilling Contr. ______

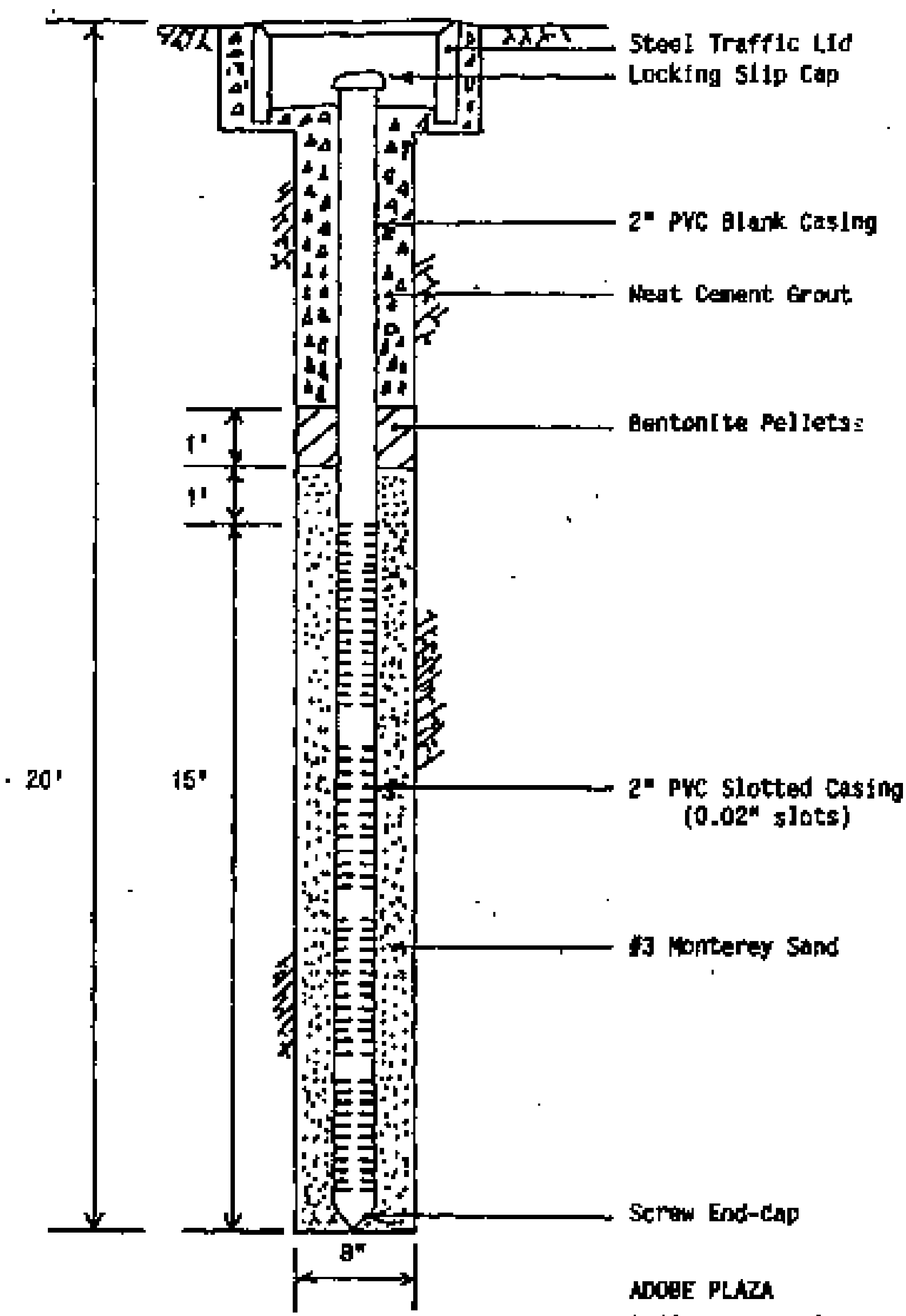
Chk'd By ______ Date ______

REGISTERED PROFESSIONAL ENGINEER
GARY B. AGUNA
No. C-34267
CIVIL
STATE OF CALIFORNIA

[signature]

01-430 Ø
35/2W 3N2
Inv/ Add/

MONITORING WELL MW-2



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

1639

GW-4306

LOCATION OF BORING: SEE SITE MAP

JOB NO.	CLIENT	LOCATION
	ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD: 8" HOLLOW STEM AUGERS

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

BORING NO.: MW-2

SHEET: 1 OF 1

WATER LEVEL				DRILLING START TIME: 1145
TIME				DRILLING FINISH TIME: 1230
DATE				START DATE: 5/11/89
CASING DEPTH				FINISH DATE: 5/11/89

DATUM: ELEVATION:

DRILLING CONTR: DRILLER:

DATE: CHK'D BY:

SAMPLER TYPE	BLOWS/6" OR RECOVERY	DEPTH OF CASING	SAMPLE NO. / TYPE	BLOWS/FT. SAMPLER	TIME	DEPTH IN FEET	SOIL GRAPH
						0	
						1	
						2	
						3	
						4	
2" SPLIT	18/18			3/3/4	1155	5	
						6	
						7	
						8	
						9	
						10	
2" SPLIT	18/18			4/6/10	1210	11	
						12	
						13	
						14	
						15	
2" SPLIT	18/18			3/3/5	1220	16	
						17	
						18	
						19	
PIN					1230	20	

SURFACE CONDITIONS: PLANTER AREA

TOPSOIL

DK GREY GRAVELLY CLAY (CL), DRY, CRUMBLY, GRAVEL TO ½"

SAME, DRY

BRN CLAYEY SILT (ML), MOIST, HIGH SILT CONTENT, LOW PLASTICITY

BRN CLAYEY SAND (SC), SATURATED, LOOSE, SAND FINE TO MEDIUM GRAIN

GREY/BRN CLAYEY SILT (ML), MOIST, VARIEGATED COLOR, DENSE, SLIGHTLY STIFF

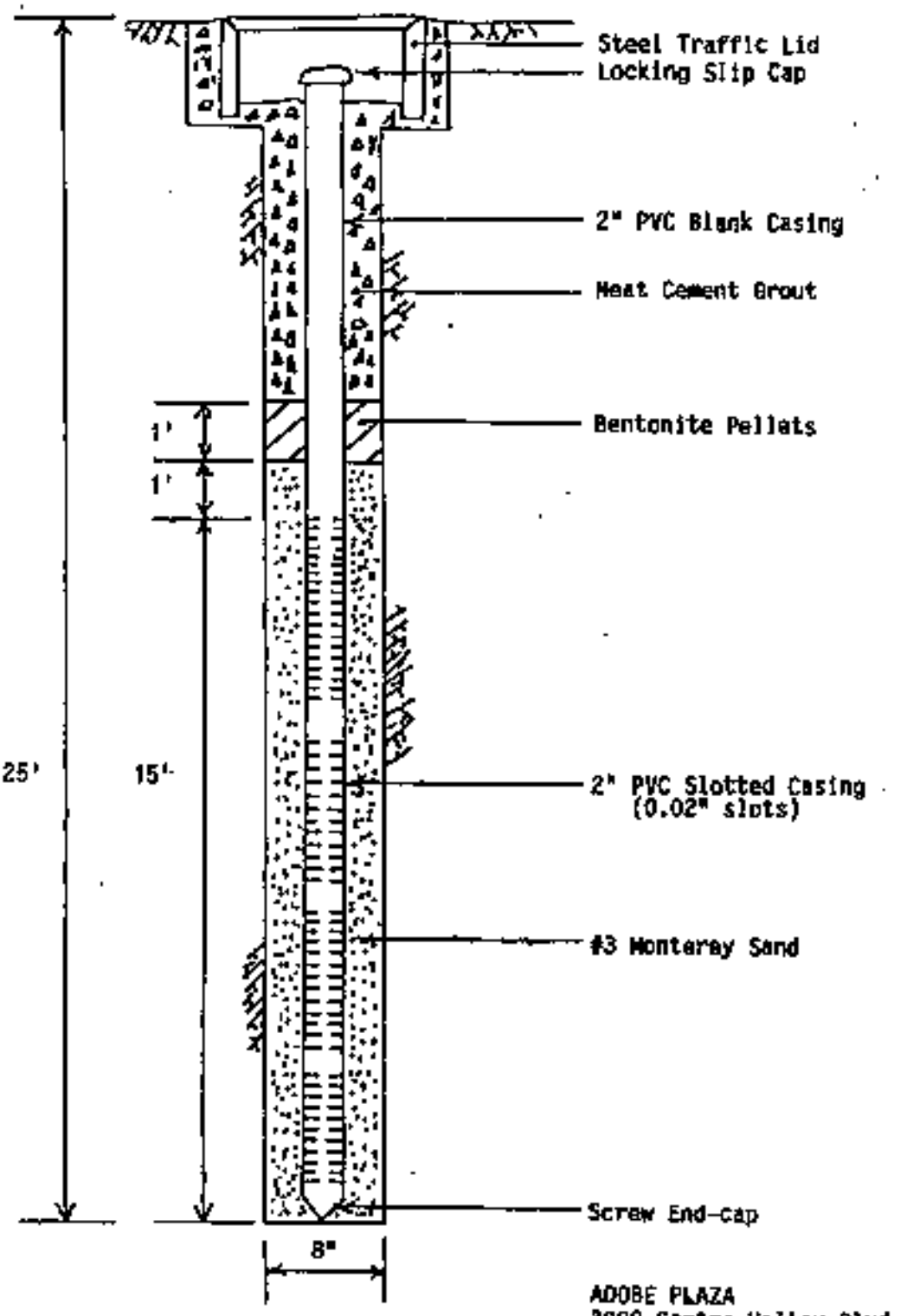
SAME, GREY & BRN COLOR IN WELL-DEFINED THIN LAYERS

TOTAL DEPTH = 20' BLS

REGISTERED PROFESSIONAL ENGINEER — No. C34302 — STATE OF CALIFORNIA

01-430P
35/2W 5N3
Inv/Add

MONITORING WELL MW-3



ADOBE PLAZA
3098 Castro Valley Blvd.
Castro Valley

1639

LOCATION OF BORING	JOB NO.	CLIENT	LOCATION
SEE SITE MAP		ADOBE PLAZA	CASTRO VALLEY

DRILLING METHOD: 8" HOLLOW STEM AUGER	BORING NO. MW-3
SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS	SHEET 1 of 2

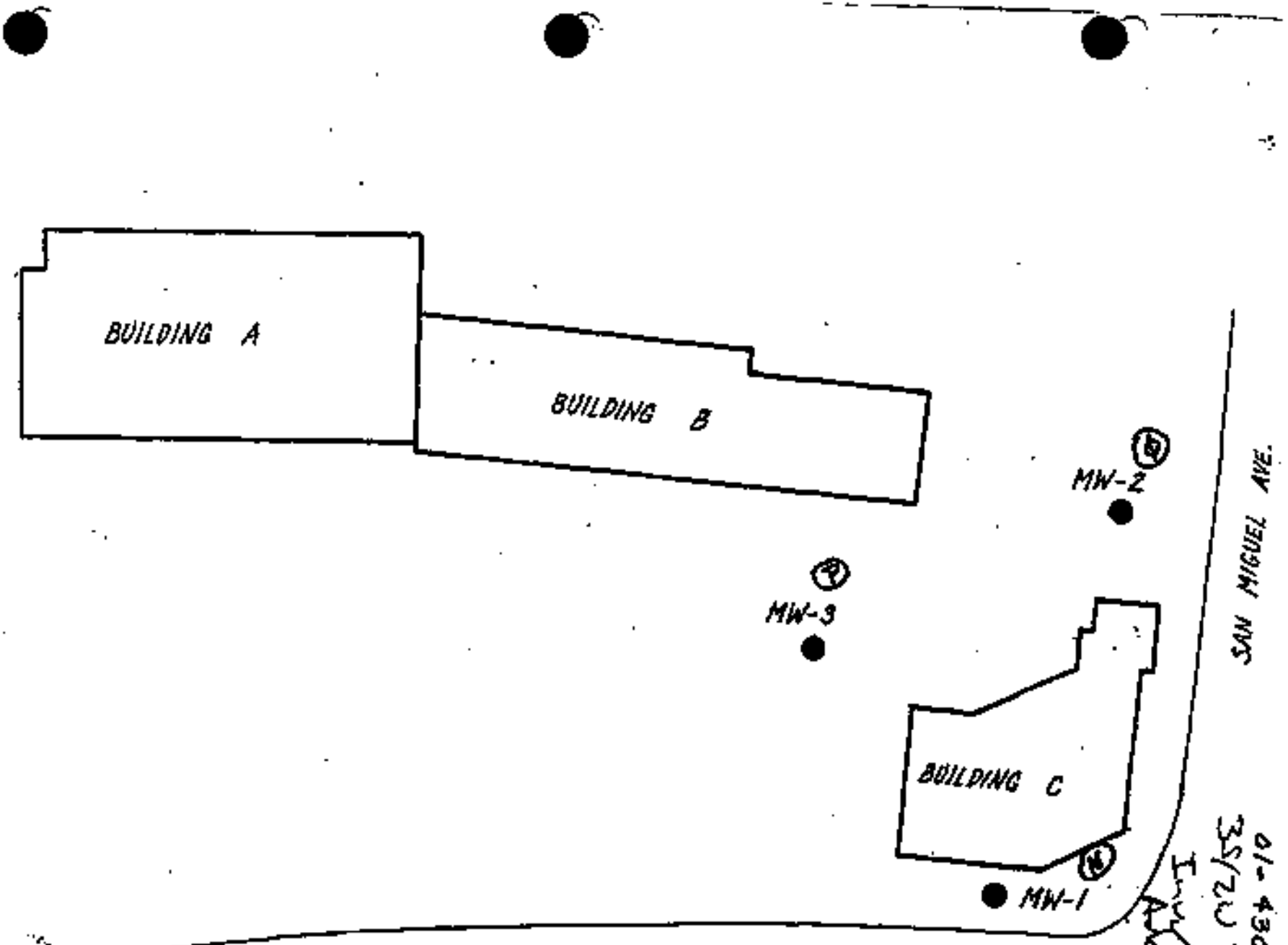
DRILLING	START	FINISH
TIME	1410	1500
DATE	8/11/89	8/11/89

WATER LEVEL / TIME / DATE / CASING DEPTH: (blank)

DATUM / ELEVATION

SURFACE CONDITIONS: PLANTER AREA

SAMPLER TYPE	BLOW COUNT	TIME	DEPTH IN FEET	DESCRIPTION
			0	TOPSOIL
			2	BRN/GREY CLAY (CL), SLIGHTLY MOIST, BRN COLOR WITH GREY STREAKS, BLACK SPOTS (ORGANIC MATTER), STIFF
2" SPLIT 18/18	5/7/8	1415	5	SAME, SLIGHTLY MOIST
2" SPLIT 18/18	3/4/5	1425	10	BRN/GREY CLAYEY SILT (ML), SLIGHTLY MOIST, BRN COLOR WITH GREY STREAKS, STIFF
2" SPLIT 15/15	4/9/13	1437	15	SAME, NEARLY SATURATED, BLACK SPOTS (ORGANIC MATTER)
			16	BRN CLAYEY SAND (SC), SATURATED, LOOSE, FINE TO MEDIUM GRAIN, (ROUNDED)
			19	GREY SAND (SW), SATURATED
			20	



SITE MAP
Adobe Plaza
3098 Castro Valley Blvd.

ORIGINAL
File with DWR

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do Not Fill In
№ 120974
State Well No. 3S 2W 3C1
Other Well No.

7434

(1) OWNER:
Name Exxon Oil Co SA
Address

(2) LOCATION OF WELL:
County　Owner's number, if any
Township, Range, and Section Castro Valley
Distance from cities, roads, railroads, etc. 20450 Redwood Rd.

(3) TYPE OF WORK (check):
New Well ☑ Deepening ☐ Reconditioning ☐ Destroying ☐
If destruction, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☑

(5) EQUIPMENT:
Rotary ☑
Cable ☐
Other ☐

(6) CASING INSTALLED:
STEEL: OTHER:
SINGLE ☐ DOUBLE ☐

If gravel packed

From ft.	To ft.	Diam.	Gage or Wall	Diameter of Bore	From ft.	To ft.

Size of shoe or well ring:　Size of gravel:
Describe joint

(7) PERFORATIONS OR SCREEN:
Type of perforation or name of screen

From ft.	To ft.	Perf. per row	Rows per ft.	Size in. x in.

(8) CONSTRUCTION:
Was a surface sanitary seal provided? Yes ☑ No ☐ To what depth 60 ft.
Were any strata sealed against pollution? Yes ☐ No ☐ If yes, note depth of strata
From　ft. to　ft.
From　ft. to　ft.
Method of sealing Cement

(9) WATER LEVELS:
Depth at which water was first found, if known　ft.
Standing level before perforating, if known　ft.
Standing level after perforating and developing　ft.

(10) WELL TESTS:
Was pump test made? Yes ☐ No ☐ If yes, by whom?
Yield:　gal./min. with　ft. drawdown after　hrs.
Temperature of water　Was a chemical analysis made? Yes ☐ No ☐
Was electric log made of well? Yes ☐ No ☐ If yes, attach copy

(11) WELL LOG:
Total depth 60 ft. Depth of completed well 60 ft.
Formation: Describe by color, character, size of material, and structure
ft. to ft.

0 - 5 Fill
5 - 30
Sandy Clay
30 - 42
Brown Clay
42 - 60
Coarse Gravel & Sand

CONFIDENTIAL LOG
Water Code Sec. 13752

Work started 9-19 19 77 Completed 19

WELL DRILLER'S STATEMENT:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
NAME Corrosion Technology Inc.
(Person, firm, or corporation) (Typed or printed)
Address P.O Box 4087
Downey Calif 90241
[SIGNED] [signature]
(Well Driller)
License No. C57-248472 Dated 19

SKETCH LOCATION OF WELL ON REVERSE SIDE

DWR 188 (REV. 2-69)

Owner: R.T. Nahas Company/UNOCAL

3S/2W 3P4
01-451G

DATE: 12/04/89
LOGGED BY: HC
ELEVATION: —
WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-5"
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

LOG DESIGNATION MW-2

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2" Asphaltic Concrete over 8" Aggregate Base	Surface seal depth = 12'
						CL	SILTY CLAY: Brown, very wet, soft	PID = 0.0
						CH/OH	SILTY CLAY: Black gray, saturated, soft, organic clay fraction	
5	2.0	13	-	-	1	CH/CL	SILTY CLAY: Greenish gray, moist stiff, slighty sandy, some air voids, blocky texture	PID to 11.0
10	2.0	21	-	-	2	CL/ML	SANDY CLAY: Light yellow brown, moist, very stiff, horizontal air voids	PID = 0.0
						CL	SILTY CLAY: Light yellow brown, moist, very stiff to hard	▽
15	2.0	38	-	-	3			PID = 0.0
						CL/SC	SANDY CLAY: Light yellow brown saturated, very stiff Graden to clayey fine sand	
20	2.0	29	-	-	4			
25	1 3/8 SH	-	-	-		CL	SILTY CLAY: Light brown, saturated	

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140 lb. HAMMER - 30 INCH DROP,
(P) HYDRAULICALLY PUSHED

Driller

BSK & Associates

3s/2w 3P4
01-461G

DATE: 12/04/89
LOGGED BY: MC
ELEVATION: —
WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-5"
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

LOG DESIGNATION MW-2

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS / FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
25						CL	SILTY CLAY: Light brown, saturated, very stiff, sand fraction	
30	1 3/8"	13	-	-				Boring terminated at 31' 30' monitoring well installed having 15' of casing over 15' of screen 2" diam
40								
45								
50								
55								

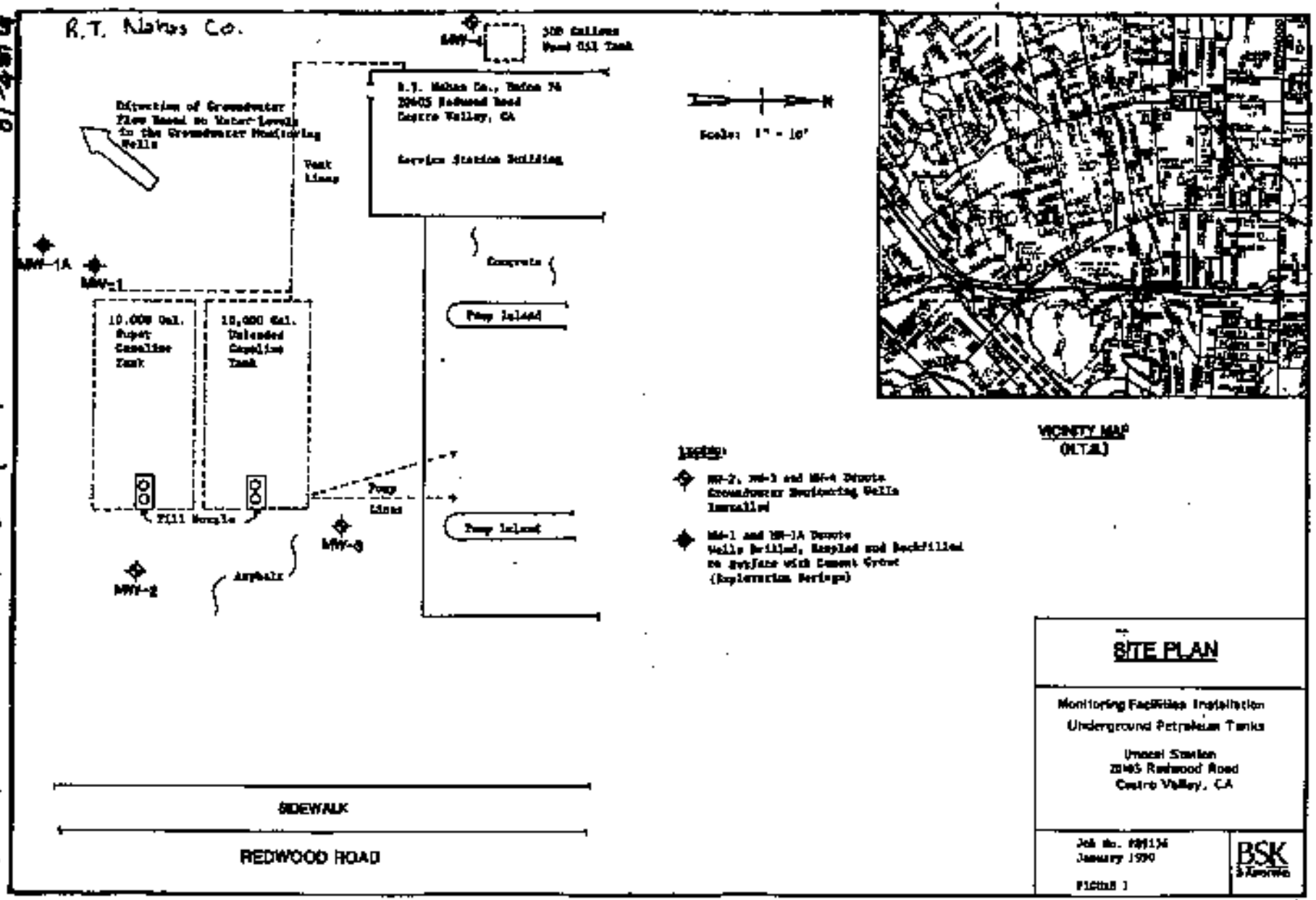
THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER - 30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Driller

BSK & Associates

R.T. Nahas Co.



SITE PLAN

Monitoring Facilities Installation
Underground Petroleum Tanks

Unocal Station
20405 Redwood Road
Castro Valley, CA

Job No. 89134
January 1990

Figure 1

BSK Associates

01-487 G

Owner: R.T. Nahas Company

Owner: R.T. Nelros Company/UNOCAL 35/2W 3P5

OL-451H

DATE: 12/05/89

LOGGED BY: MC

ELEVATION: —

LOG DESIGNATION MW-3

WATER LEVEL: Initially encountered at 19'-0", then rose to 12'-4"

JOB: P89134

EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	3" Asphaltic Concrete over 8" Aggregate Base	Surface seal depth = 11'
						CL	SILTY CLAY: Brown, moist	
						CH/OH	SILTY CLAY: Black/gray, saturated soft, organic clay fraction	PID = 0.8
5	2.0	27	–	–	1	CH/CL	SILTY CLAY: Greenish gray, moist stiff, mottled yellow brown	PID = 1.2
10	2.0	28	–	–	2	CL/ML	SANDY CLAY: Light yellow brown, moist, stiff, mottled olive brown, numerous horizontal air voids	PID = 0.0
							▽	
						CL	SILTY CLAY: Light yellow brown, moist, very stiff to hard, slighty sandy, blocky texture	
15	2.0	36	–	–	3			PID = 0.0
	2.0	37	–	–	4			
20						CL/SC	SANDY CLAY: Light yellow brown, wet, very stiff to hard Saturated at 20'	PID = 2.5
25						CL	SILTY CLAY: Light brown saturated	

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.

(2) 140 lb HAMMER – 30 inch DROP.

(3) HYDRAULICALLY PUSHED

Driller

BSK & Associates

RT NAVAS/ONDCAG

33/2W 3P6

01-461 I

DATE: 12-07-89
LOGGED BY: MC
ELEVATION: --
WATER LEVEL: Initially encountered at 16'-6", then rose to 12'-2"
EQUIPMENT: Nobile Drill B-53 8" Hollow Stem Auger

LOG DESIGNATION MW-6

JOB: F89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2.5" Asphaltic Concrete over 1.5' Aggregate Base	Surface seal depth - 8'
						CH/CL	SILTY CLAY: Black gray, very moist, medium stiff	PID = 0.0
5	2.0	30	-	-	1	CL	SILTY CLAY: Greenish gray, moist, stiff to very stiff, numerous vertical small air voids	PID = 0.0
	2.0	23	-	-	2		Grades to yellow brown, stiff, black staining in root voids	PID to 2.3
10						CL	SANDY CLAY: Light yellow brown, moist, stiff	No odor noted
	2.0	22	-	-	3		Grades to very moist, olive staining on rootlets	PID = 0.0
15							Saturated at 16½'	
	2.0	27	-	-		CL/SC	SANDY CLAY: Light brown, saturated fine-grained sand, stiff	PID to 6.1
20								No odor noted
								2" diam
						CL	SILTY CLAY: Light brown, saturated stiff	25' monitoring well installed having 10' of casing over 15' of screen
25								Boring terminated at 25'

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER [illegible] DIAM.
(2) [illegible] HAMMER - 30 INCH DROP.
(3) HYDRAULICALLY PUSHED

BSK & Associates

Owner: R.T. Nahas Company/UNOCAL

35/2W 3P

01-4518

DATE: 12/05/89

LOG DESIGNATION MW-1

LOGGED BY: BC

ELEVATION: --

WATER LEVEL: Initially encountered at 20'-0", then rose to 12'-0"

JOB: P89134

EQUIPMENT: Mobil Drill B-53 8" Hollow Stem Auger

FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2.5" Asphaltic Concrete over 8" Aggregate Base	Surface seal depth = 30'
						CL	SILTY CLAY: Brown, moist, firm	
						CH	SILTY CLAY: Black gray, saturated soft	
5		22			1	CH/CL	SILTY CLAY: Greenish gray, moist, stiff, slighty sandy, numerous air voids	PID = 0.0
10		27			2	CL/ML	SANDY CLAY: Light yellow brown, moist, very stiff	
15		28			3	CL/SC	SANDY CLAY/CLAYEY SAND: Light yellow-brown, moist, very stiff strong hydrocarbon odor Saturated at 17'	PID to 28.8 PID to 605.0
		36			4	SC	CLAYEY SAND: Greenish gray, saturated No odor	
20							SILTY CLAY: Light brown, moist, very stiff Saturated at 20'	
25							Note: PID denotes Photo Ionization Detector reading in PPM	

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER (INSIDE DIAM.

(2) HAMMER - 30 INCH DROP.

(P) HYDRAULICALLY PUSHED

Driller: BSK & Associates

35/2W 3P
01-451K

DATE: 12-07-89
LOGGED BY: MC
ELEVATION: —
WATER LEVEL: Seepage noted at 15' (not water table)
EQUIPMENT: Mobile Drill B-53 8" Hollow Stem Auger

LOG DESIGNATION MW-1A

JOB: P89134
FIGURE:

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
						PMT	2.5"Asphaltic Concrete over 8"Aggregate Base	
						CL/CH	SILTY CLAY: Black gray, very moist, medium stiff	PID = 0.0
							Grades to gray brown	
5	2.0	27	-	-	1	CL	SILTY CLAY: Greenish gray, moist stiff to very stiff	PID = 0.0
							Grades to yellow brown	PID = 0.0
							Grades to mottled gray yellow-brown	
10	2.0	28	-	-	2	CL	SANDY CLAY: Greenish gray, moist stiff, strong hydrocarbon odor	PID to 342.0
							Grades to very moist	PID to 58.0
	2.0	20	-	-	3		Grades to yellow brown, moist, lesser sand fraction and slight odor	PID to 37.0
15						CL/SC	SANDY CLAY: Yellow brown, saturated soft no odor	
	2.0	35	-	-	4	CL	SILTY CLAY: Reddish brown, damp, very stiff to hard	PID = 0.0
20								Boring terminated at 17½' backfilled to surface with neat grout
								Note: Surface seal, depth = 17.5
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) HAMMER—30 INCH DROP.
(P) HYDRAULICALLY PUSHED

Parker

BSK & Associates

01-497 3S/2W 3P

RECEIVED

MAR - 1 1991

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Mahas
Address 20630 Redwood Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT
Well Construction
Cathodic Protection
Water Supply
Monitoring X
Geotechnical Investigation
General
Contamination X
Well Destruction

PROPOSED WATER SUPPLY WELL USE
Domestic Industrial Other
Municipal Irrigation

DRILLING METHOD:
Mud Rotary Air Rotary Auger X
Cable Other

DRILLER'S LICENSE NO. C-57 490442

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/13/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-4476
35/2W 34

DATE: March 13, 1991
LOGGED BY: TNB
ELEVATION: Approximately +180' MSL
WATER LEVEL: First Encountered at 15'
EQUIPMENT: B-53 Mobile Drill Using 8" Hollow Stem Auger

LOG DESIGNATION SB-3

JOB: P90165
FIGURE: 6

DEPTH, FEET	NOMINAL (1) DIAMETER, IN.	BLOWS/FOOT (2)	MOISTURE %	DRY DENSITY, PCF	SAMPLES	U.S.C.S.	SOIL OR ROCK DESCRIPTION	NOTES
							Asphalt Surface (2-1/2 inches)	
0						FILL	AGGREGATE BASE: Orange and gray, moist to wet	PID to 0
							CLAYEY SILT: Black, damp	PID to 0
5	2.0	41	-	-		ML	CLAYEY SILT: Mottled dark-gray and yellow-brown, very stiff to hard, damp, rootlets	PID to 0
						SC	CLAYEY SAND: Mottled blue-gray and yellow-brown, moist, dense, many very fine pores, hydrocarbon odor	PID to 37
10	2.0	42	-	-	1			
						ML	SANDY SILT: Orange-brown, fine-grained sand, minor clay, moist to wet, very stiff, porous, saturated pores have strong odor	PID to 1500 First Encountered PID to 20
	2.0	30	-	-	2			
15								▽
	2.0	27	-	-				PID to 70
						SC	CLAYEY SAND: Orange-brown, saturated, medium-dense	
20							Note: Sheen observed on water in boring	Boring Terminated at 18' Boring Backfilled with Grout PID = Photo-ionization Detector
25								

THE LOGS SHOW SUBSURFACE CONDITIONS AT THE DATES AND LOCATIONS INDICATED, AND IT IS NOT WARRANTED THAT THEY ARE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

(1) SAMPLER INSIDE DIAM.
(2) 140lb HAMMER-30 INCH DROP.
(3) APPROXIMATELY PLACED

BSK & Associates

01-4970 3S/2W 3P

RECEIVED

MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Mahas
Address 20630 Rito Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Jim Berger
Address 5719 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Well Supply ___
Monitoring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490492

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 55 ft.
Surface Seal Depth 15 ft. Number 3

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 3 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Jim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497P/3S/2W 3P

RECEIVED

MAR _ 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Mahas
Address 20630 Alta Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 Fontana Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490442

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

12/89

01-497R 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

6997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Water Supply ___
Monitoring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490442

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/13/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 6 Mar 91
Wyman Hong

12/89

01-4975 | 3S/2W 3P

RECEIVED

MAR - 1 1991

ZONE 7 WATER RESOURCES MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94568 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462.4000
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	X
Monitoring	X	Well Destruction	

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490442

WELL PROJECTS

Drill Hole Diameter	8 in.	Maximum Depth	35 ft.
Casing Diameter	2 in.		
Surface Seal Depth	15 ft.	Number	4

GEOTECHNICAL PROJECTS

Number of Borings	3	Maximum Depth	18 ft.
Hole Diameter	8 in.		

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/6/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 6 Mar 91
Wyman Hong

121969

01-497T/3S/2W 3P

RECEIVED
MAR 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20650 Rito Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sahoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Water Supply ___
Monitoring X
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/6/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121988

01-4974 | 3S/2W 3P

RECEIVED
MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

6997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94566 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
ame Robert T. Mahas
ddress 28630 Patio Drive Phone
ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5724 F Sonoma Dr. Phone 415 462 4000
ity Pleasanton Zip 94566

YPE OF PROJECT
ell Construction
athodic Protection ___
ater Supply ___
onitoring X

Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

ROPOSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
unicipal ___ Irrigation ___

RILLING METHOD:
ud Rotary ___ Air Rotary ___ Auger X
able ___ Other ___

RILLER'S LICENSE NO. C-57 490942

ELL PROJECTS
Drill Hole Diameter 3 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

EOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 2 in. Depth 18 ft.

STIMATED STARTING DATE 3/12/91
STIMATED COMPLETION DATE 3/15/91

hereby agree to comply with all requirements of this and Alameda County Ordinance No. 73-68.

PPLICANT'S IGNATURE Tim Berger Date 3/6/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

12/989

01-497W/3S/2W 3P

RECEIVED

MAR _ 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Nahas
Address 20630 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT
Well Construction / Geotechnical Investigation
Cathodic Protection ___ General ___
Water Supply ___ Contamination X
Monitoring X Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

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D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

01-497X/3S/2W 3P

RECEIVED

MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

6997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Mahas
Address 20830 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name BSK & Associates
Tim Berger
Address 5729 F Sonoma Dr. Phone 415 462 4000
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490947

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 4 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 6 Mar 91
Wyman Hong

121989

01-4977 / 3S/2W 3P

RECEIVED

MAR - 1 1991

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

CLIENT
Name Robert T. Mahas
Address 20830 Patio Drive Phone
City Castro Valley, CA Zip 94546

APPLICANT
Name B&K & Associates
Tim Berger
Address 5729 F Sahoma Dr. Phone 415 462 9660
City Pleasanton Zip 94566

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	X
Monitoring	X	Well Destruction	

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C-57 490942

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

ESTIMATED STARTING DATE 3/12/91
ESTIMATED COMPLETION DATE 3/13/91

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/6/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
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(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 6 Mar 91
Wyman Hong

121989

01-4977/3S/2W 3P

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MAR - 1 1991

ZONE 7 WATER RESOURCE MANAGEMENT

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

6997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

OCATION OF PROJECT Unocal 76
20405 Redwood Rd.
Castro Valley, CA.

LIENT
ame Robert T. Mahas
ddress 28630 Ruth Drive Phone
ity Castro Valley, CA Zip 94546

PPLICANT
ame BSK & Associates
Tim Berger
ddress 5729 F Sohaire Dr. Phone 415 462 4000
ity Pleasanton Zip 94566

YPE OF PROJECT
ell Construction
athodic Protection
Supply
onitoring X
Geotechnical Investigation
General
Contamination X
Well Destruction

ROPOSED WATER SUPPLY WELL USE
omestic Industrial Other
unicipal Irrigation

RILLING METHOD:
ud Rotary Air Rotary Auger X
able Other

RILLER'S LICENSE NO. C-57 490942

ELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 35 ft.
Surface Seal Depth 15 ft. Number 3

EOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 8 in. Depth 18 ft.

STIMATED STARTING DATE 3/12/91
STIMATED COMPLETION DATE 3/15/91

I hereby agree to comply with all requirements of this ordinance and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tim Berger Date 3/8/91

FOR OFFICE USE

PERMIT NUMBER 91136
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
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(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, treated cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 8 Mar 91
Wyman Hong

121989

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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107257

CHECKED BY

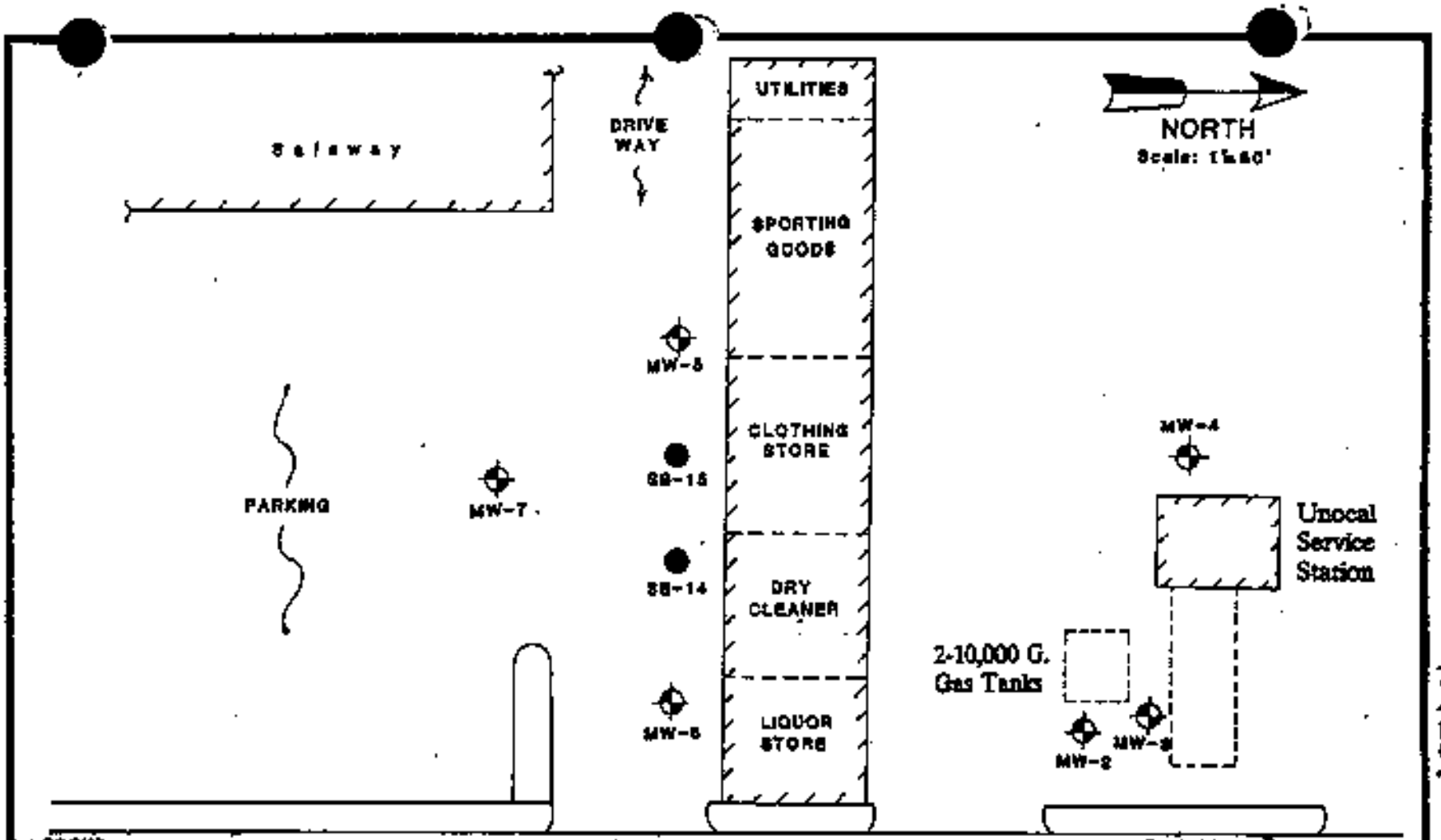
DATE 5/7/92

BY TWD

L ION

Job No. P92057.3
May 1992
FIGURE: 1-1

BSK



SITE PLAN

Job No. P92057.3
May 1992
FIGURE: 1-2

BSK & ASSOCIATES

107257

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

107238

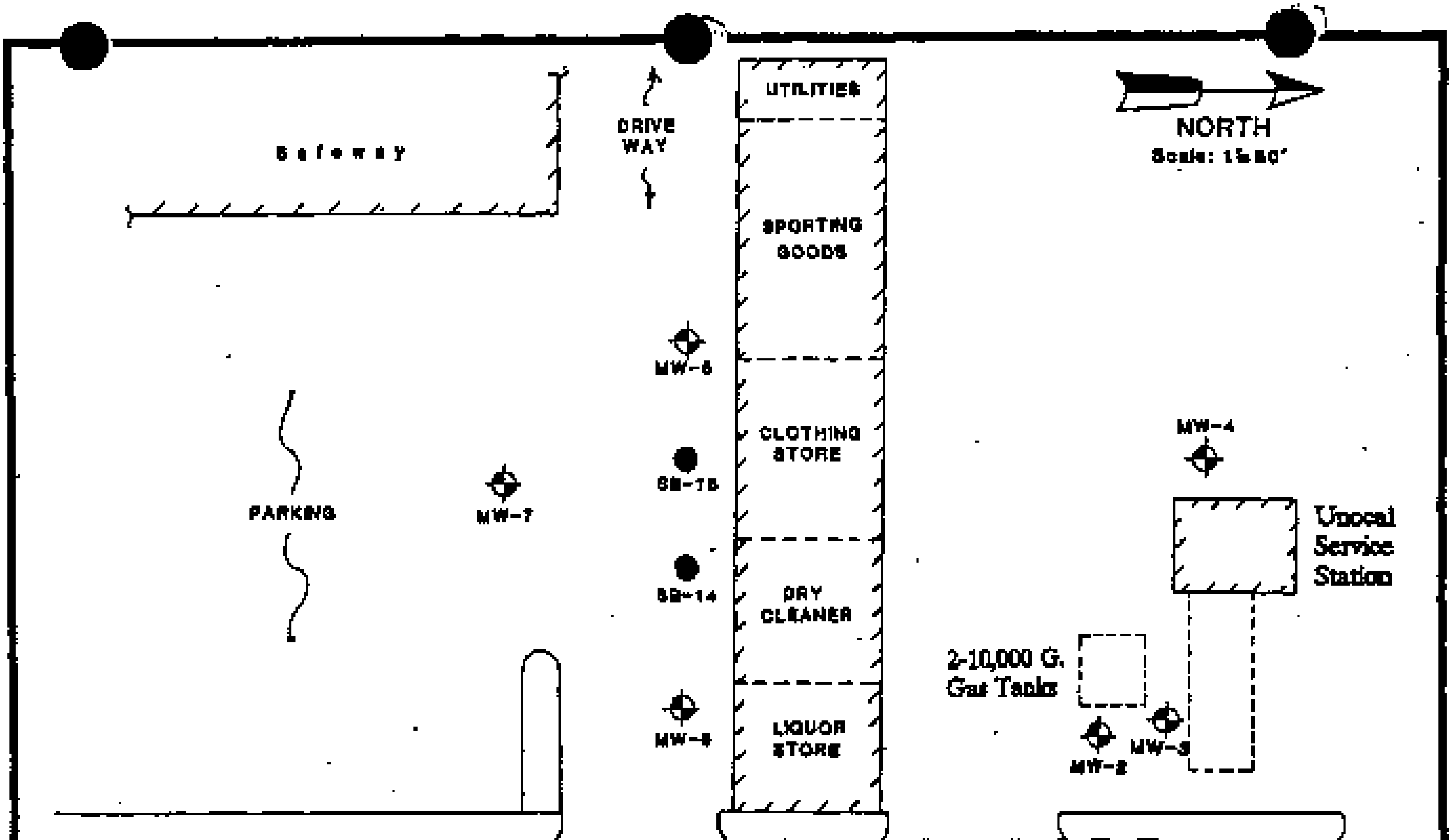
BY TJD DATE 5/27/92 CHECKED BY

L

ION

)

Job No. P92057.3
May 1992
FIGURE: 1-1



LEGEND:

- Location And Designation Of Groundwater Monitoring Well
- Location And Designation Of Shallow Soil Boring

SITE PLAN

Job No. P92057.3
May 1992
FIGURE: 1-2

BSK & ASSOCIATES

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WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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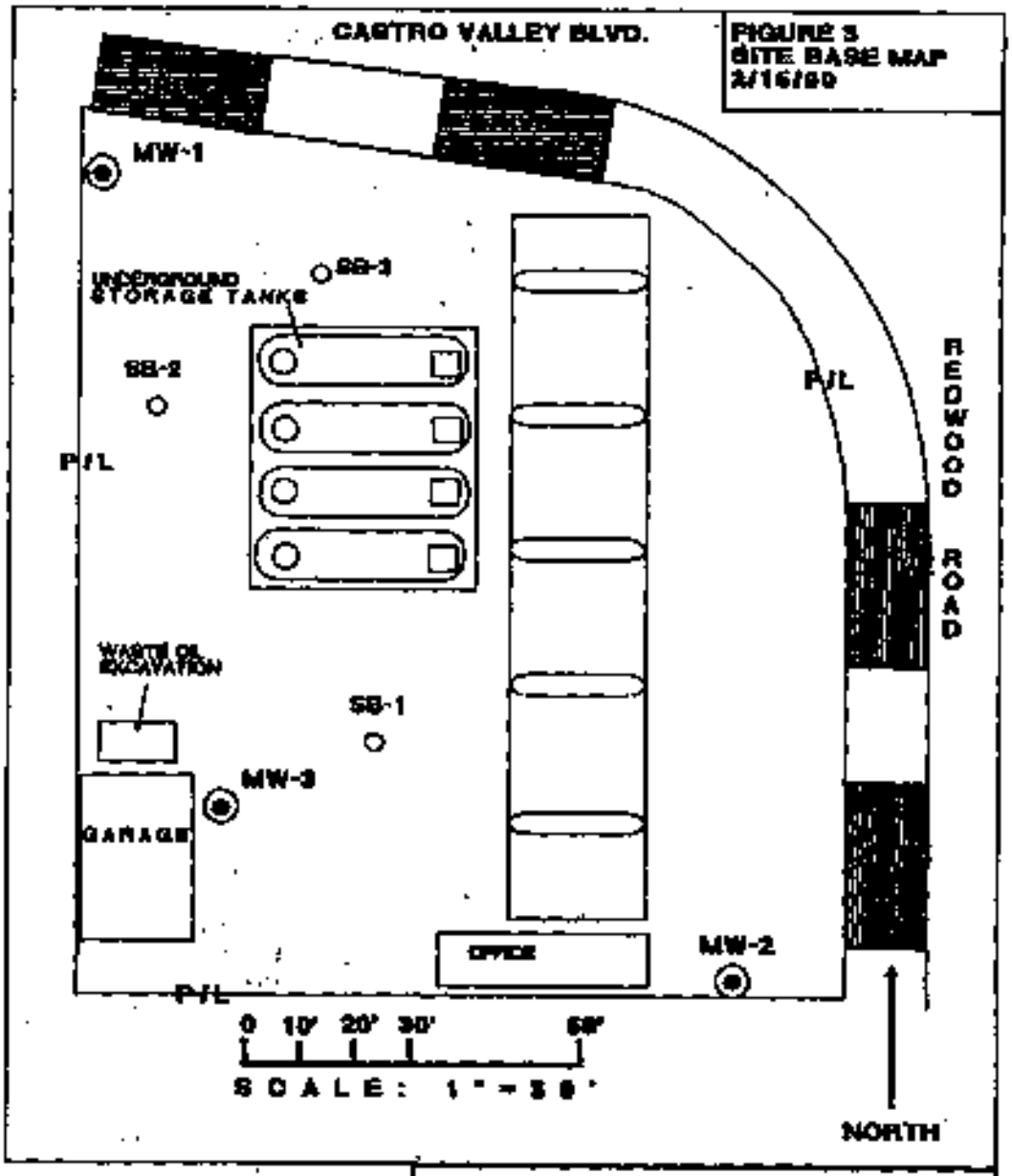
304835A-

3S/2W3P1-



◉ MONITOR WELL LOCATIONS

○ SOIL BORING LOCATIONS

P/L PROPERTY LINE

XTRA OIL COMPANY
SHELL SERVICE STATION
3495 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA
PROJ. SEC. 5; T3S; R2W; MDB&M

BASE MAP TAKEN FROM "MONTGOMERY & DAVIS' PLOT PLAN 6-14-1989"

BY WESTERN GEO-ENGINEERS:
GEORGE L. CONVERSE, 1-22-1990.

Lic #'s 557 [513857 → 401530 – Hoyle

3049355A
3S/2W 3P1

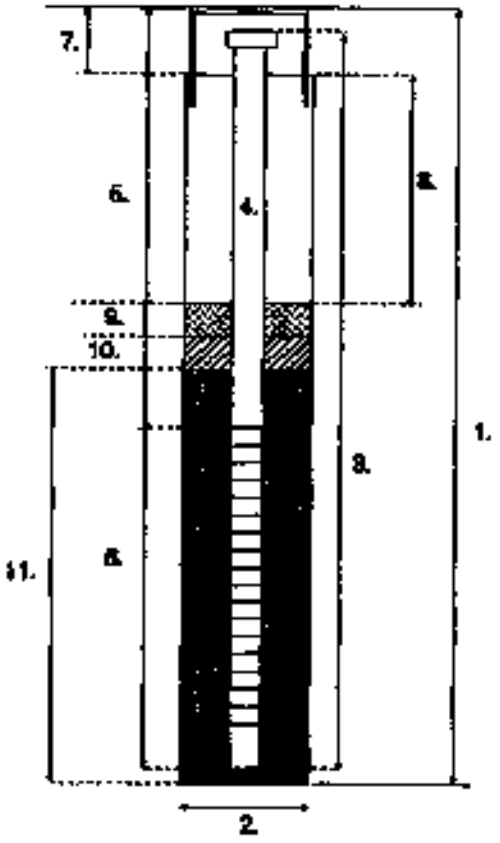
WEGE WELL CONSTRUCTION LOG

PROJECT NAME XTRA GAS-CASTRO VALLEY, CALIFORNIA
PROJECT NUMBER
MONITOR WELL NUMBER MW1
TOP OF CASING ELEVATION 175.99'
DATE COMPLETED 2-14-90

WELL TYPE MONITORING WELL (water)

REMARKS: 10' of 4" diameter sch. F480 slotted PVC casing; 9 feet of 4" diameter sch. F480 blank PVC casing; 6 bags #3 clean Monterey sand; 1 bag #2/12 clean Monterey sand; 2 bags neat cement; 1 water tight locking well cap

TYPICAL MONITORING WELL



WELL CONSTRUCTION

1. Total Depth of hole 20'
2. Diameter of boring 10"
3. Casing length 19'
4. Diameter of casing 4"
5. Depth to top of screen 9'
6. Length of screen 10'
   screen interval 9'-19'
   screen type machine cut
   screen size 0.02"
7. Surface seal
   seal material
8. Backfill material 1.5'-5'
   seal material neat cement
9. Upper seal
   seal material
10. Lower seal 5'-7.5'
    seal material #2/12 Monterey sand
11. Annulus 7.5'-19'
    material #3 clean Monterey sand

NOTE: Each well constructed with poly-vinyl chloride (PVC) casing with threaded bottom caps and threaded top caps. Also, PVC steam cleaned before constructing each well. Traffic boxes are water tight and locked for security.

304335A 3S/2W 3P1

-WEGE-
WESTERN GEO-ENGINEERS

BORING: MW1
DATE DRILLED: 2/14/90
▌ SAMPLE INTERVAL
▼ WATER

BORE HOLE LOG

PROJECT: XTRA GAS-CASTRO VALLEY	GEOLOGIST: M. Thomas	TOP OF CASING ELEVATION: 175.98'
LOCATION: 3496 Castro Valley Boulevard/ Redwood Road, Castro Valley, California	DRILLER: B. Hogate Jr.	TOTAL DEPTH: 20'
DRILLING CONTRACTOR: HOGATE EXPLORATION DRILLING	DEPTH TO WATER: Approx. 16'**	CASING: 4" to 18'

REMARKS: 10" hole drilled with continuous flight of 10" hollow stem augers powered by a B40 Mobile drill rig. Soil samples collected w/ 2" OA standard sampler connected to a 140lb. surface drop hammer.

DEPTH (FT)	SAMPLE No.	BLOWS/FT.	PPM TVO VAPOR	SOIL DESCRIPTION (UNIFIED SOILS CLASSIFICATION SYSTEM)	GRAPHIC LOG	REMARKS
				4" asphalt surface		
5'	MW1 5'	16	60-70 PPM	Clay: dark black, with minor silt, firm, dry, moderate odor (CL)		
10'	MW1 10'	16	500-600 PPM	Silt: brown, with moderate clay, firm, dry, strong gasoline odor (ML)		
15' ▼	MW1 15'	19	10-20 PPM	Clay: brown, with moderate silt, semi-firm, dry, no odor (CL)		
20'	MW1 20'	30	10-20 PPM	Clay: brown, decreasing clay, with silt, wet, no odor (CL-ML)		

** Indicates water encountered during drilling process

PID calibrated with 50 ppm gasoline standard

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

3048358

35/2W 3P2

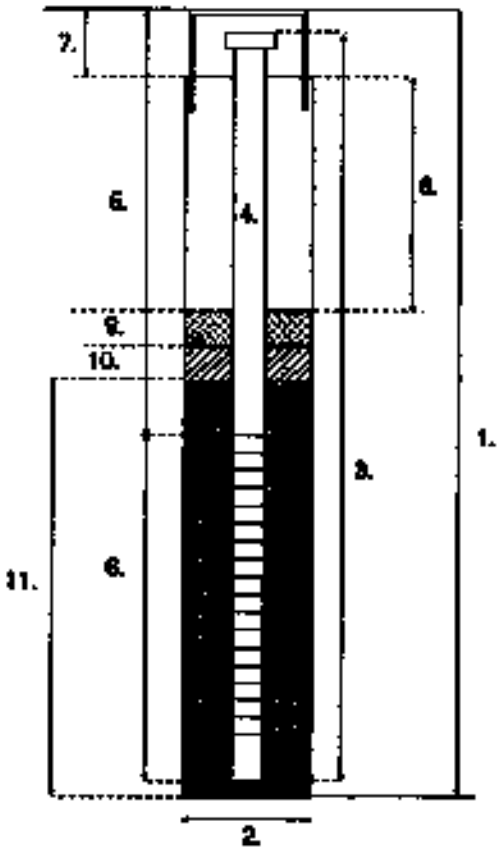
WEGE WELL CONSTRUCTION LOG

PROJECT NAME XTRA GAS-CASTRO VALLEY, CALIFORNIA
MONITOR WELL NUMBER MW2
TOP OF CASING ELEVATION 176.94'
PROJECT NUMBER
DATE COMPLETED 2-14-90

WELL TYPE MONITORING WELL (water)

REMARKS: 10' of 4" diameter sch. F480 slotted PVC casing; 8 feet of 4" diameter sch. F480 blank PVC casing; 6 bags #3 clean Monterey sand; 1 bag #2/12 clean Monterey sand; 2 bags neat cement; 1 water tight locking well cap

TYPICAL MONITORING WELL



WELL CONSTRUCTION

1. Total Depth of hole 18'
2. Diameter of boring 10"
3. Casing length 18'
4. Diameter of casing 4"
5. Depth to top of screen 8'
6. Length of screen 10'
   screen interval 8'-18'
   screen type machine cut
   screen size 0.02"
7. Surface seal
   seal material
8. Backfill material 1.5'-4'
   seal material neat cement
9. Upper seal
   seal material
10. Lower seal 4'-6'
    seal material #2/12 Monterey sand
11. Annulus 6'-18'
    material #3 clean Monterey sand

NOTE: Each well constructed with poly-vinyl chloride (PVC) casing with threaded bottom caps and threaded top caps. Also, PVC steam cleaned before constructing each well. Traffic boxes are water tight and locked for security.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

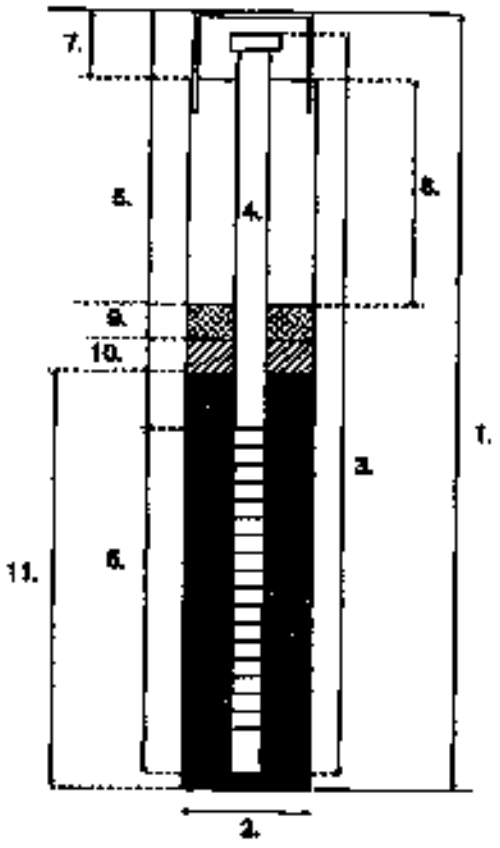
3043350
3S/2W 3P3

WEGE WELL CONSTRUCTION LOG

PROJECT NAME XTRA GAS-CASTRO VALLEY, CALIFORNIA
PROJECT NUMBER
MONITOR WELL NUMBER MW3
TOP OF CASING ELEVATION 175.00'
DATE COMPLETED 2-15-90
WELL TYPE MONITORING WELL (water)

REMARKS: 10' of 4" diameter sch. F480 slotted PVC casing; 9 feet of 4" diameter sch. F480 blank PVC casing; 4 bags #3 clean Monterey sand; 2 bags #2/12 clean Monterey sand; 2 bags neat cement; 1 water tight locking well cap

TYPICAL MONITORING WELL



WELL CONSTRUCTION

1. Total Depth of hole 18'
2. Diameter of boring 10"
3. Casing length 18'
4. Diameter of casing 4"
5. Depth to top of screen 8'
6. Length of screen 10'
   screen interval 8'-18'
   screen type machine cut
   screen size 0.02"
7. Surface seal
   seal material
8. Backfill material 1.6'-4.6'
   seal material neat cement
9. Upper seal
   seal material
10. Lower seal 4.6'-9.6'
    seal material #2/12 Monterey sand
11. Annulus 9.6'-18.6'
    material #3 clean Monterey sand

NOTE: Each well constructed with poly-vinyl chloride (PVC) casing with threaded bottom caps and threaded top caps. Also, PVC steam cleaned before constructing each well. Traffic boxes are water tight and locked for security.

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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WELL COMPLETION REPORT
(WELL LOGS)

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(WELL LOGS)

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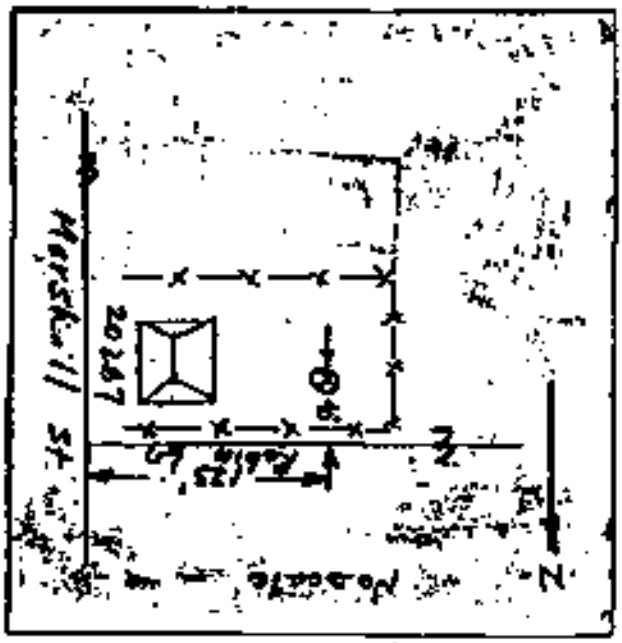
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

DEPT. OF WATER
RESOURCES

1978 FEB 6 PM 1 42



33295

32382

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WELL COMPLETION REPORT
(WELL LOGS)

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WELL COMPLETION REPORT
(WELL LOGS)

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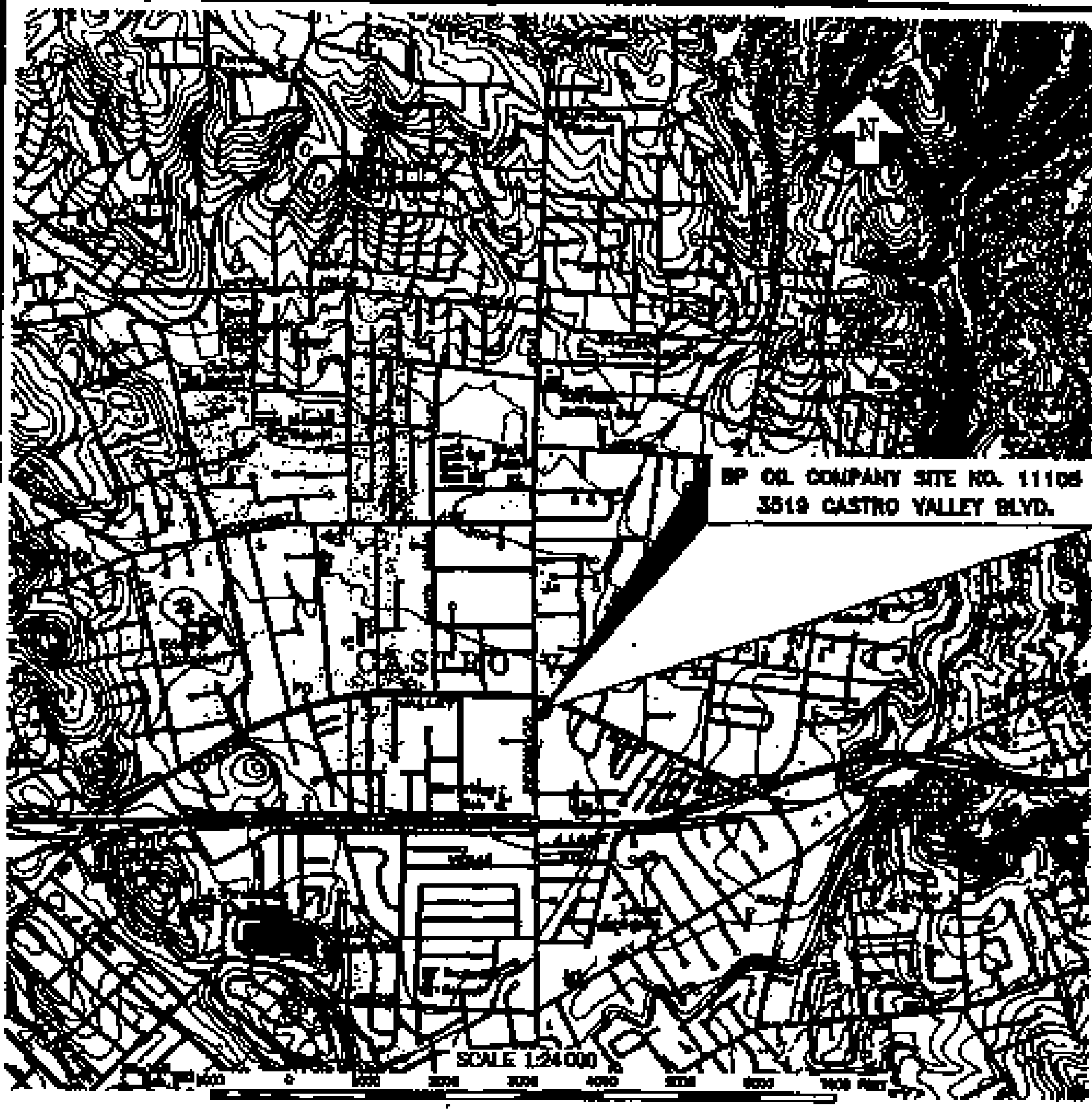
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

35/2W 13P 10

P.2 of 4

427880



SOURCE: USGS 7.5 Minute Quadrangle Map
Hayward, California (1959; Photorevised 1980)

ESE	Environmental Science & Engineering, Inc.
BP OIL COMPANY SITE NO. 11106 CASTRO VALLEY & REDWOOD ROAD CASTRO VALLEY, CALIFORNIA	
FIGURE 1 AREA MAP	

DRAWN BY	APPROVED BY	SCALE
DWR		
DATE 10/89	DWG NAME CASTR010	PROJ. NO. 6-89-5405

P-334 427880 3S/2W 13? 10

Environmental Science & Engineering, Inc.

BORING LOG AND WELL COMPLETION SUMMARY

MW-1

Page 1 of 1

Project Name: BP Oil Company — Project No: [illegible]
Location: BP Station #11[illegible]
[illegible] Castro Valley Boulevard
Castro Valley, CA

Driller: [illegible] Exploration Services, Inc.
Method: HSA
Hole Diameter: 8" Total Depth: 30 Feet
Ref. Elevations:
Logged By: [illegible]

Dates:
Start: [illegible]
Finish: [illegible]

WELL COMPLETION

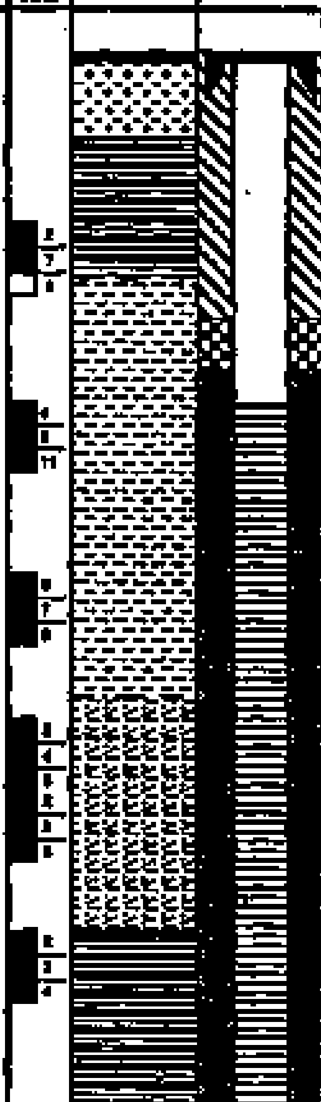
Completion Depth: 30 Feet

Size/Type	From	To
Casing: 2" Diam. Sched. 40 PVC	10 Feet	0 Feet
Screen: 2" Diam. Sched. 40 Slotted (0.0[illegible]") PVC	30 Feet	10 Feet
Filter: [illegible] Sand	30 Feet	8 Feet
Seal: Bentonite	9 Feet	7.5 Feet
Grout	7.5 Feet	0 Feet

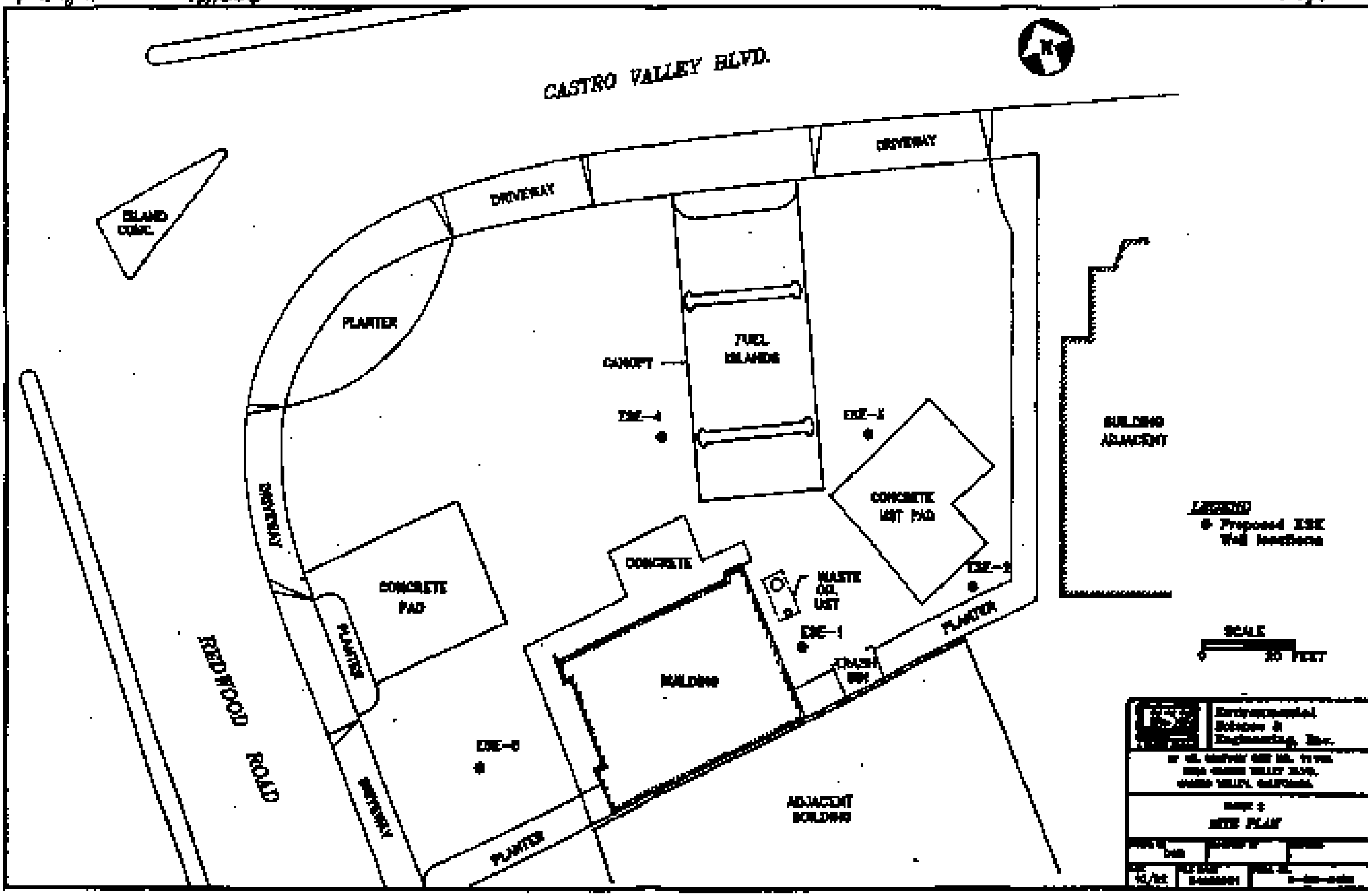
Well Cap or Box: Flush Mounted Well Box

Depth (ft)	Lithologic Description	USCS	PID	Remarks (Water, drilling/completion, summary, sample type)
0	Asphalt FILL GRAVEL	GM		
	NATIVE CLAY SILT, black, stiff, damp, no odor.	CL		
5	CLAY, black, 10-20% coarse, very stiff, damp, no odor.		7	SAMPLE @ 5 FEET
	SANDY SILT, blue-gray, 10-20% coarse, very stiff, damp, heavy hydrocarbon odor.			
10	As above, with orange mottles.	ML	170	SAMPLE @ 10.5 FEET
	SANDY SILT, orange with blue-gray mottles, [illegible] medium grained sand, stiff, damp, heavy hydrocarbon odor.			
15	As above, no odor.		250	SAMPLE @ 15 FEET
20	SILTY SAND, red-brown, 10-20% [illegible], 70-80% medium sand, dense, moist, no odor.		8	SAMPLE @ 20 FEET Ground Water @ 20 Feet
	As above, wet.	SM		
	SANDY SILT, grey with orange mottles, [illegible] medium grained sand, stiff, moist, no odor.			
25	CLAY, gray, damp, stiff, no odor.	CL		
30				TOTAL DEPTH = 30 FEET

Graphic Log (Sample Blows / Lithology / Well Installation):



REGISTERED GEOLOGIST
SUSAN G. [illegible]
[illegible]
STATE OF CALIFORNIA


CASTRO VALLEY BLVD.
N
ISLAND CONC.
DRIVEWAY
DRIVEWAY
PLANTER
CANOPY
FUEL ISLANDS
ESE-4
ESE-3
ESE-2
ESE-1
ESE-5
BUILDING ADJACENT
CONCRETE UST PAD
LEGEND
● Proposed ESE Well locations
CONCRETE
WASTE OIL UST
CONCRETE PAD
DRIVEWAY
PLANTER
PLANTER
BUILDING
TRASH BIN
SCALE
0 20 FEET
REDWOOD ROAD
DRIVEWAY
PLANTER
ADJACENT BUILDING
Environmental Science & Engineering, Inc.
SITE PLAN

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
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WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

01-610

Hull Development Labs. Inc.

RECEIVED
JAN 3 1986
ALAMEDA COUNTY HEALTH CARE SERVICES

Winter Petroleum
661 Kings Row
San Jose, CA 95112
Attention Ms. Gail Williams

DATE: 12-20-85
DATE RECD: 12-17-85
LAB NO: 8108194
P.O. NO: Verbal G.N.

Total Petroleum Fuel Hydrocarbons Analysis: LOCATION 164; sampled 12-10-85

Sample I.D.	Gasoline
164 - 10', sandy soil	none detected
164 - 15', sandy soil	none detected
164 - 20', sandy soil	6.0 ppm
164 - 25', wet soil	38.0 ppm

HULL DEV... LABS
CERTIFIED ANALYSIS
Approved by:
STATE OF CALIFORNIA
DEPT. OF HEALTH SERVICES

Texaco 3940 Castro Valley Bl Castro Valley

The determination was done by GC with a FID, using Purge and Trap with an ultra high performance cross-linked methyl silicone capillary column.

P. Patel
PRAVIN PATEL (Chemist)

500 LAURELWOOD, SUITE 14 • SANTA CLARA, CALIFORNIA 95054 • (408) 727-3313

01-0120

35/2W 10A1

MONITORING WELL - DRILLER'S REPORT

Permit # 85221 35/2W 10A1

OWNER: TEXACO

LOCATION OF WELL: See attached map.

DATE DRILLED: December 10, 1985

DATE COMPLETED: December 10, 1985

TYPE OF WORK: New Well

PROPOSED USE: Monitoring (gasolene)

EQUIPMENT: Auger

GRAVEL PACK: Yes; 7" dia. drill hole; Packed from 13' to 25'

CASING INSTALLED: From 0' to 15'; 2" dia; schedule 40 PVC

PERFORATIONS: From 15' to 25'; Slot Size: 1/100"

WELL SEAL: Sanitary Seal from 0' to 10'; Concrete.
The drill hole from 25' to 30' was backfilled with concrete.

WATER LEVEL: Initial 22'; Final 24'.

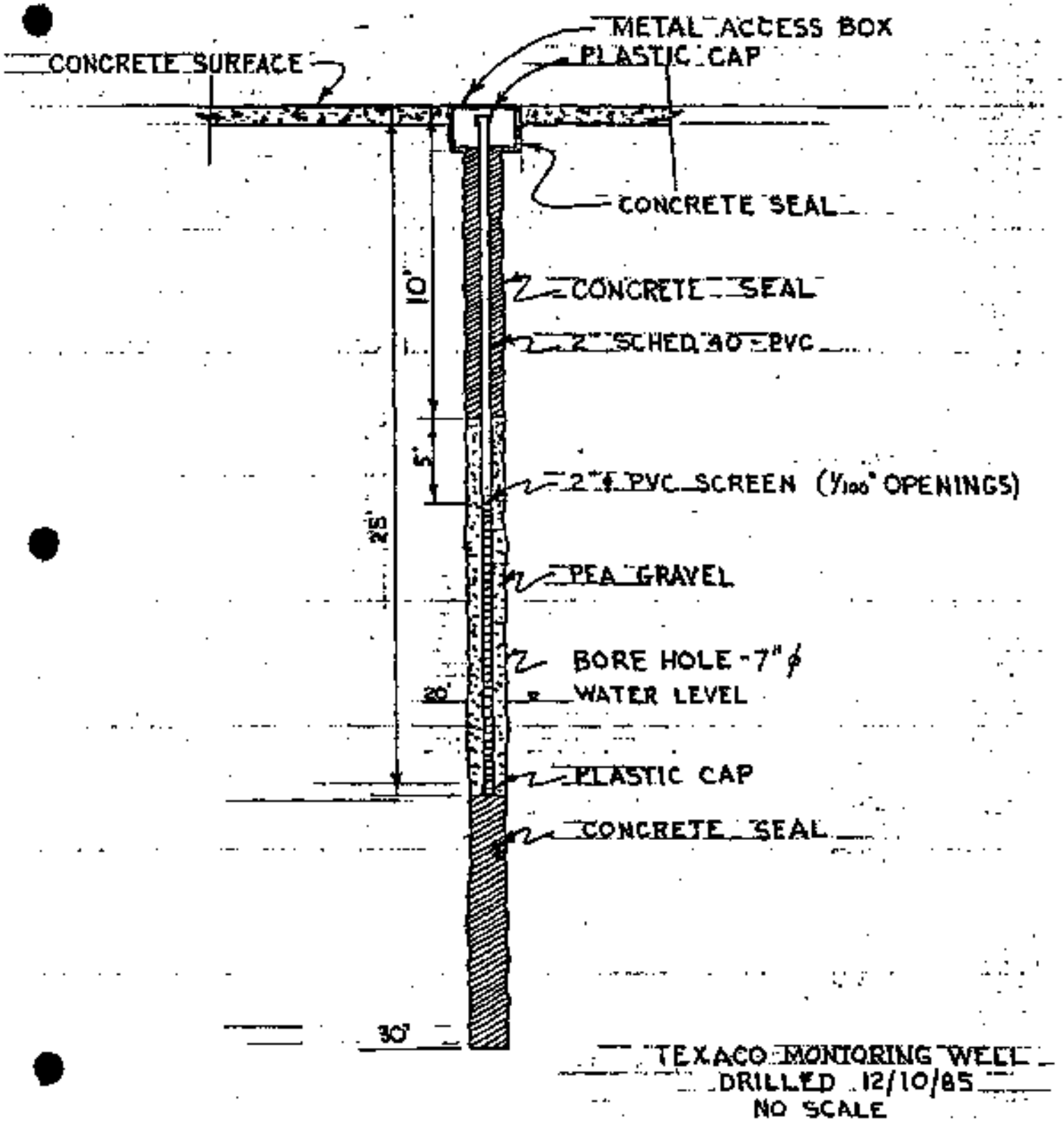
WELL LOG

0 -	3"	AC
3" -	9"	Blue base rock
9" -	4'	Gray-black clay; Fuel odor
4' -	7'	Brown clay, stiff; Fuel odor
7' -	10'	Gray-brown Clayey sand; Fuel odor
10' -	12'	Brown sand; Fuel odor
12' -	15'	Brown clay; No Fuel odor
15' -	18'	Brown clay; Fuel odor
18' -	20'	Fine sand; free; Fuel odor
20' -	22'	Fine sand; some clay @ 22'; Fuel odor
22' -	25'	Fine sand with clay; Water; Fuel odor
25' -	30'	Brown clay

Well Driller: Winter Petroleum Service, Inc.
881 Kings Row
San Jose, California 95112
(408) 279-2570

01-010

33/2W 10A1



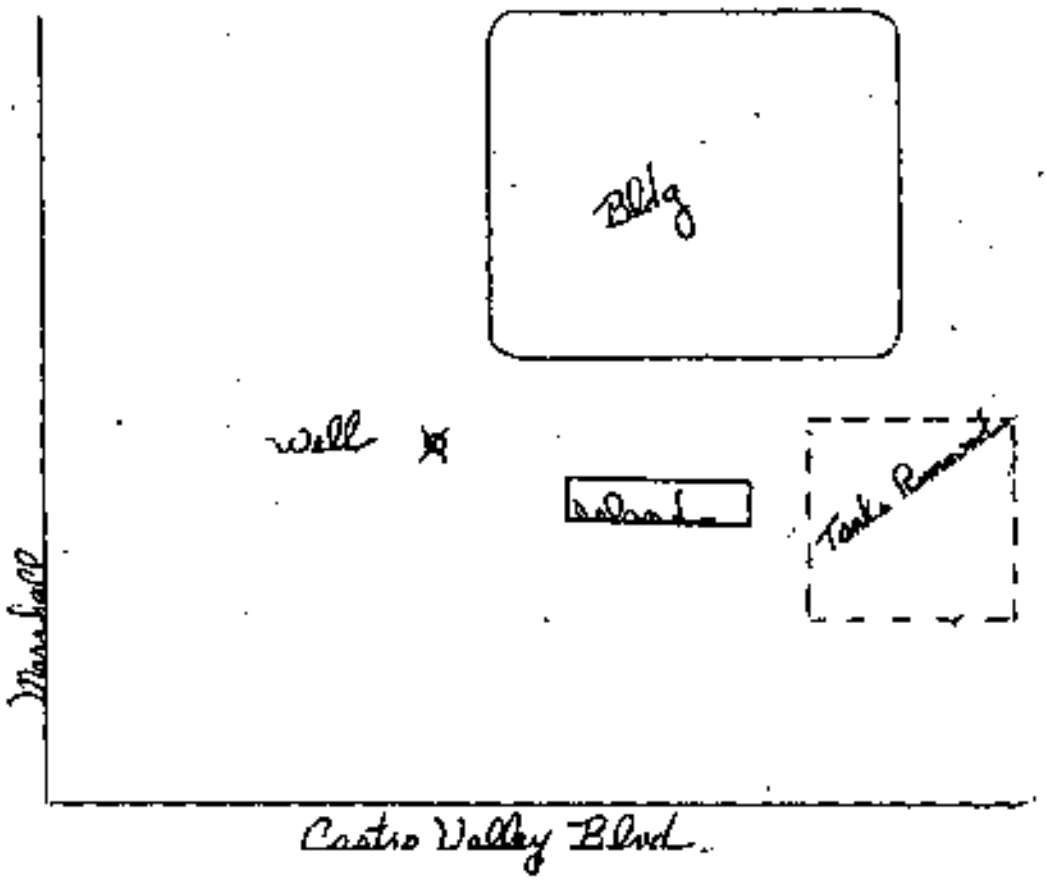
TEXACO MONITORING WELL
DRILLED 12/10/85
NO SCALE

35/2W 10A1 01-610

Winter

PETROLEUM SERVICE, INC.
COMPLETE SERVICING
Licensed Contractors—All Work Guaranteed
Pumps, Hoists & Compressors
Motor Exchange, Hoses, Belts, etc.

10 January 1986



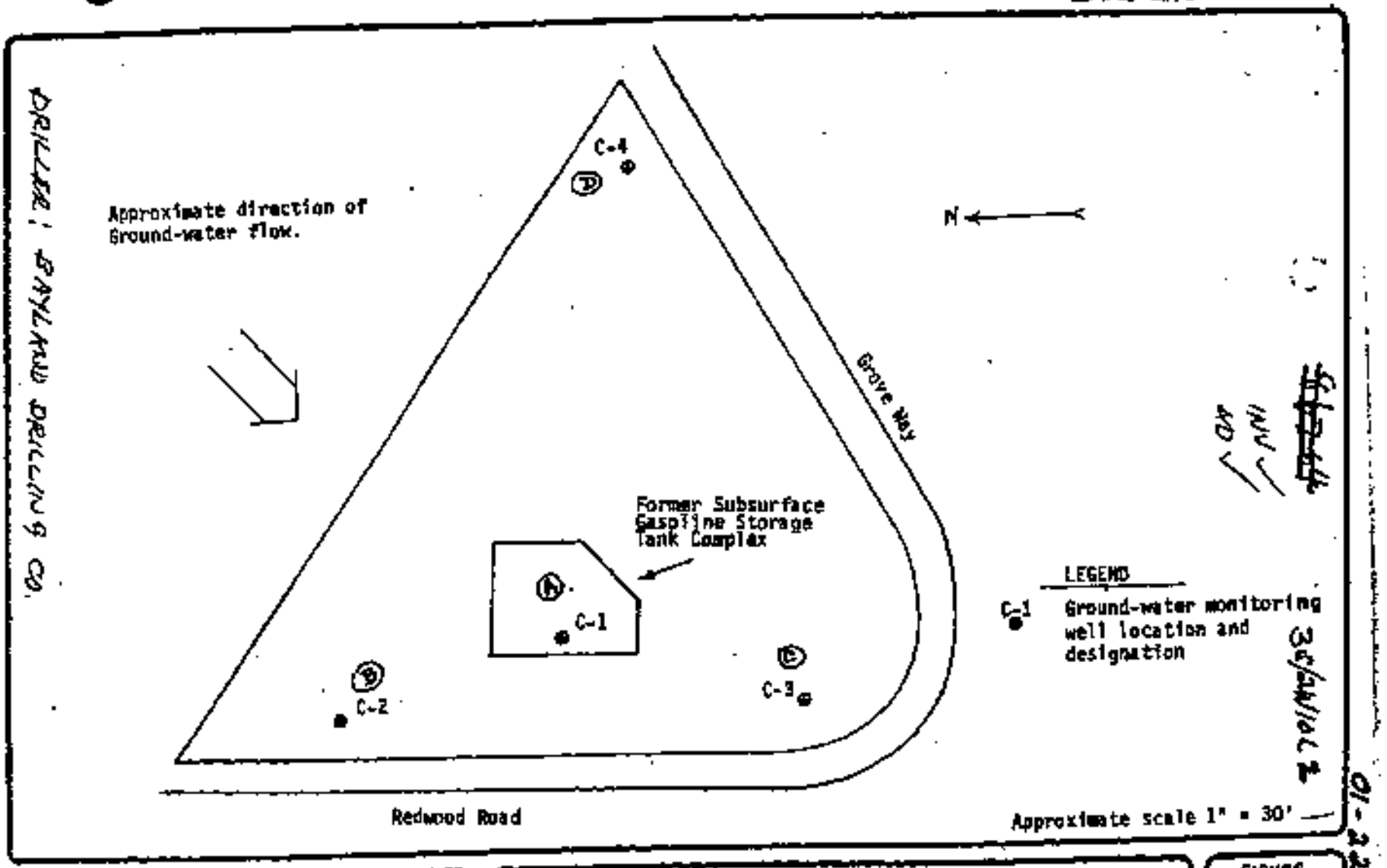
J Williams

SAN JOSE
661 Kings Row
(408) 279-2370

SAN FRANCISCO
50 Shotwell Street
(415) 621-8275

SACRAMENTO
2230 Calfax Street
(916) 922-1336

DRAFT



EMCON Associates
San Jose, California

Gettler-Ryan Inc.
Subsurface Hydrogeologic Investigation
Former Chevron Service Station, Redwood Road & Grove Way, Castro Valley, California

Monitoring Well Location Map

FIGURE 1

PROJECT NO 800-85.01

#86264 INV ✓ 10 ✓ 3S/2W 10L2 01-[illegible]

LOG OF EXPLORATORY BORING

EMCON

PROJECT No. 80-15	DATE 10-01-86
CLIENT G.R. Sharon	BORING No. C-1
LOCATION Redwood [illegible] Castro Vly.	SHEET 1 OF 1
LOGGED BY RPL	DRILLER Bayland

Field location of boring: 22[illegible]

Ground Elev. 47.31 Datum Project

Drilling method H.S. Auger

Hole dia. 8"

Casing installation data: Slotted 3" PVC from 30 to 10 feet; Solid to surface; Sand pack to 7 feet; Bentonite to 7 ft; concrete to surface.

Water level	16.8'	16.4'	16.5'	
Time	1030	[illegible] 1127	1550	
Date	10-1-86	10-1-86	10-1-86	

Pocket Torvane TSF	Pocket Penetrometer TSF	Blows/in. or Pressure PSI	Type of Sample	Sample Number	Depth ft.	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
					2		SC	Clayey sand to silty sand fill; dark brown (10YR 3/?); 20-30% fines; fine to coarse sand; trace gravel; wood fragments; medium dense; dry; NPD.
		10/12/17	W-L 100%	1	4			
					6			
					8			
		6/9/19	W-L 100%	2	10			@ 9 ft.; moist; strong gasoline odor.
Change at 12 ft.					12			
					14		SP/CL	Sand, clay - interbedded; olive gray (5Y 4/2); moist; strong gasoline odor; sand fine grained; trace medium grained; loose; clay very stiff; sand fine to coarse grained; loose.
	2.5	3/5/7	W-L 100%	3	16			
					18			
		6/10/22	W-L 100%	4	20			@ 19 ft. SP and SW; dense; wet; strong gasoline odor.
					22			
		20/24/41	W-L 100%	5	24			@ 24 ft. SP SW; very dense; faint product odor.
					26			
					28			
		37/40 12"	W-L 100%	6	30			@ 29 ft. SP, 5-10% fines; SW; trace gravel; no product odor.
								Bottom of boring at 30 feet.

PRELIMINARY

#P6267 3S/2W/OL2

01-229A

WELL DETAILS

PROJECT NUMBER 800-85.01

PROJECT NAME G. R. Chevron, Castro Vly.

COUNTY Alameda

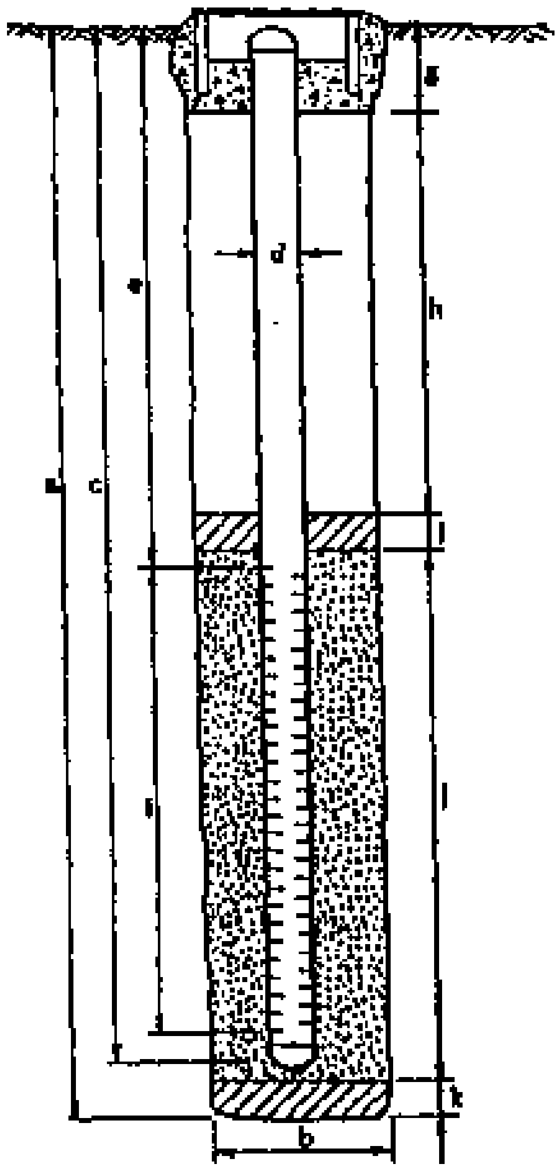
WELL PERMIT NO. ____

BORING / WELL NO. C-1

TOP OF CASING ELEV. 97.31

GROUND SURFACE ELEV. ____

DATUM Project



EXPLORATORY BORING

a. Total depth 30 ft.

b. Diameter 8 in.

Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Casing length 30 ft.

Material Schedule 40 PVC

d. Diameter 3 in.

e. Depth to top perforations 10 ft.

f. Perforated length 20 ft.

Perforated interval from 10 to 30 ft.

Perforation type Machined Slot

Perforation size 0.020 inch

g. Surface seal 7 ft.

Seal material Concrete

h. Backfill - ft.

Backfill material - -

i. Seal 1 ft.

Seal material Bentonite

j. Gravel pack (30 to 8 ft.) 22 ft.

Pack material Coarse Aquarium Sand

k. Bottom seal - ft.

Seal material - -

DRAFT

PLATE

WNY RD ✓ 35/2W/10L3 61-285

LOG OF EXPLORATORY BORING

EMCON ASSOCIATES

PROJECT No. 10795A DATE 10-21-86

CLIENT G.R. CA. IRON

LOCATION REDWOOD & GENE CASTRO VALLEY

LOGGED BY EBL DRILLER BAYLAND

BORING No. C-2

Sheet 1 of 1

Drilling method H-S AUGER

Hole dia. 8"

Casing installation data: SLOTTED 3" PVC INSTALLED FROM 30 to 15 FT; SOLID to SURFACE; SAND PACK to 8"; BENTONITE to 7 FT; CONCRETE TO SURFACE.

Field location of boring:

Ground Elev. 96.33

Datum PROJECT

Water level	15.47	[illegible]		
Time	1548			
Date	10-7-86			

Pocket Torvane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure PSI	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
								SAND, CLAY - FILL
					2			
					4		SC	CLAYEY SAND, DARK BROWN (10YR 3/3); HIGH PLASTICITY FINES; 20-40%
2.5	6/20/25	DR-L 100%	(1)		6			FINE TO COARSE SAND; 5-10% FINE TO MEDIUM GRAVEL; MOIST; DENSE TO VERY STIFF; NPO.
					8			
								SILT, SAND - INTERBEDDED; OLIVE GRAY (5Y 4/2);
2.0	9/11/21	DR-L	(2)		10			MOIST; FAINT PRODUCT ODOR; SILT (SANDY) FINE SAND; STIFF; SAND: FINE GRAINED; VERY DENSE.
					12			
					14			
	24/40	DR-L 0%	(3)		16			
					18		CL	
1.5	5/8/10	DR-L 100%	(4)		20			CLAY, SILT, SAND - INTERBEDDED; DARK BROWN (10YR 3/3); WET; NO PRODUCT ODOR; CLAY: TRACE FINE SAND; HEAVY IRON OXIDE STAINING; SILT: SILTS TO 20% FINE SAND; STIFF; SAND: 5-10% FINES; FINE GRAINED; DENSE.
					22			
2.0	9/16/22	DR-L 100%	(5)		24			
					26			@ 24 FT; NO PRODUCT ODOR.
					28			
	10/20/26	DR-L 100%	(6)		30		SW	SAND, DARK GRAY (2.5Y N/4); 5-10% FINES; FINE TO COARSE SAND, 5-10% FINE TO COARSE GRAVEL; VERY DENSE; WET; NPO.
					32			
					34			BOTTOM OF BORING AT 30½ FT.
					36			

PRELIMINARY

01-2278

#86267

WELL DETAILS

2S/2W/10L3

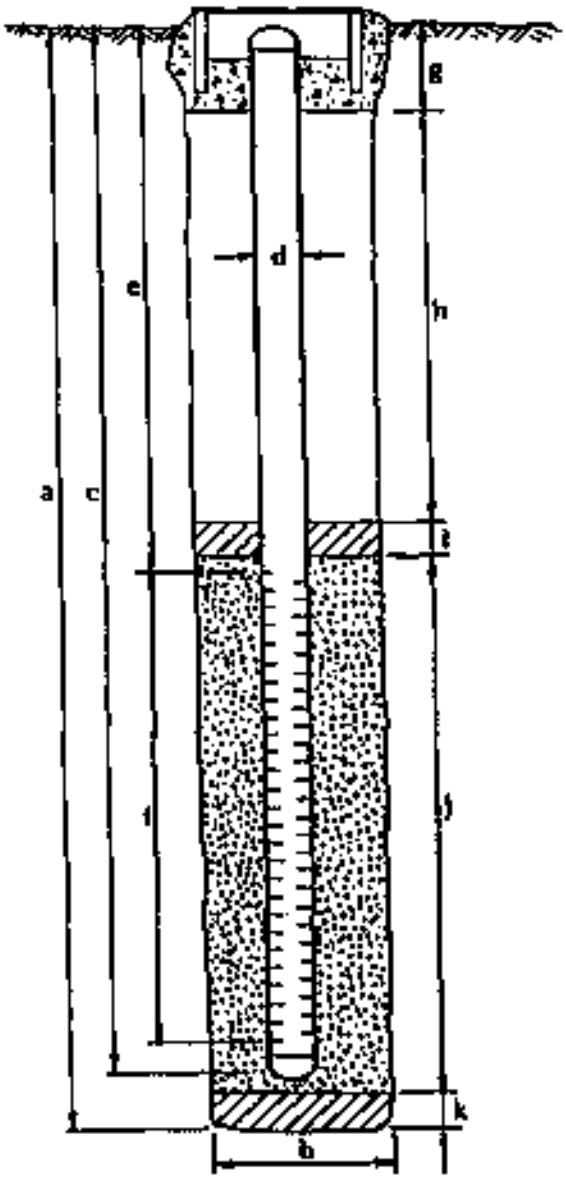
PROJECT NUMBER 800-85.01 — BORING / WELL NO. G-2

PROJECT NAME G.-R. Chevron, Castro Vlx. — TOP OF CASING ELEV. 96.33

COUNTY Alameda — GROUND SURFACE ELEV. ____

WELL PERMIT NO. ____ — DATUM Project

G-5 vault box (Std.)



EXPLORATORY BORING

a. Total depth 30.5 ft.

b. Diameter 8 in.

Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Casing length 30 ft.

Material Schedule 40 PVC

d. Diameter 3 in.

e. Depth to top perforations 10 ft.

f. Perforated length 20 ft.

Perforated interval from 10 to 30 ft.

Perforation type Machined Slot

Perforation size 0.020 inch

g. Surface seal 7 ft.

Seal material Concrete

h. Backfill - ft.

Backfill material -

i. Seal 1 ft.

Seal material Bentonite

j. Gravel pack (30 to 8 ft.) 22 ft.

Pack material Coarse Aquarium Sand

k. Bottom seal - ft.

Seal material -

DRAFT

PLATE

#096268 INV ✓ AD ✓ 3S/2W10L4 01-384C

LOG OF EXPLORATORY BORING

EMCON ASSOCIATES

PROJECT No. 504-85 DATE 10-01-86
CLIENT G.R. CHEVRON
LOCATION REDWOOD & GROVE, CASTRO VLY
LOGGED BY ESL DRILLER BOYLAND
BORING No. C-3 Sheet 1 of 1

Field location of boring:

Ground Elev. 166.26 Datum PROJECT

Drilling method H.S. AUGER
Hole dia. 8"

Casing installation data SLOTTED 3" PVC FROM 30 to 10 FT; SAND to SURFACE; SAND PACK to 8 FT; BENTONITE to 7 FT; CONCRETE to SURFACE

Water level	17.75			
Time	1553			
Date	10-1-86			

Pocket Torvane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure (psi)	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
					0			SAND, CLAY, & GRAVEL FILL
					2			
	4.5	3/15/26	DE-L 100%	(1)	4		CH	CLAY: DARK YELLOWISH BROWN (10YR 4/6); 5-10% FINE TO COARSE SAND; 5-10% FINE GRAVEL; HARD; MOIST; NPO
					6			
					8		SC	CLAYEY SAND; DARK YELLOWISH BROWN (10YR 4/6); 30-40% HIGH PLASTICITY FINES; FINE TO COARSE SAND; 10-20% FINE TO MEDIUM GRAVEL; VERY DENSE; MOIST; NPO.
	3.0	11/10	DE-L 100%	(2)	10			
					12			
		12/17/9	DE-L 100%	(3)	14		SP	SAND: OLIVE GRAY (5Y 4/2); 5-10% FINES; FINE SAND; TRACE FINE TO COARSE GRAVEL; DENSE; WET; STRONG GASOLINE ODOR.
					16			
					18		SP/SW	SAND INTERBEDDED; YELLOWISH BROWN (10YR 5/4); DENSE; WET; NO PRODUCT ODOR; SAND FINE TO COARSE GRAINED; TRACE FINE GRAVEL; FINE GRAINED.
		12/28/15	DE-L 100%	(4)	20			
					22			
		17/25/37	DE-L 100%	(5)	24			@ 24 FT: VERY DENSE; NPO.
					26			
					28			@ 29 FT: NO PRODUCT ODOR.
	4.5	12/46	DE-L 100%	(6)	30		ML	SILT; BROWN (10YR 5/3); 10-20% FINE SAND; VERY STIFF; WET; NPO.
					32			BOTTOM OF BORING AT 30.5 FT.

PRELIMINARY

#96268 87-2290

WELL DETAILS 3S/2W/10L

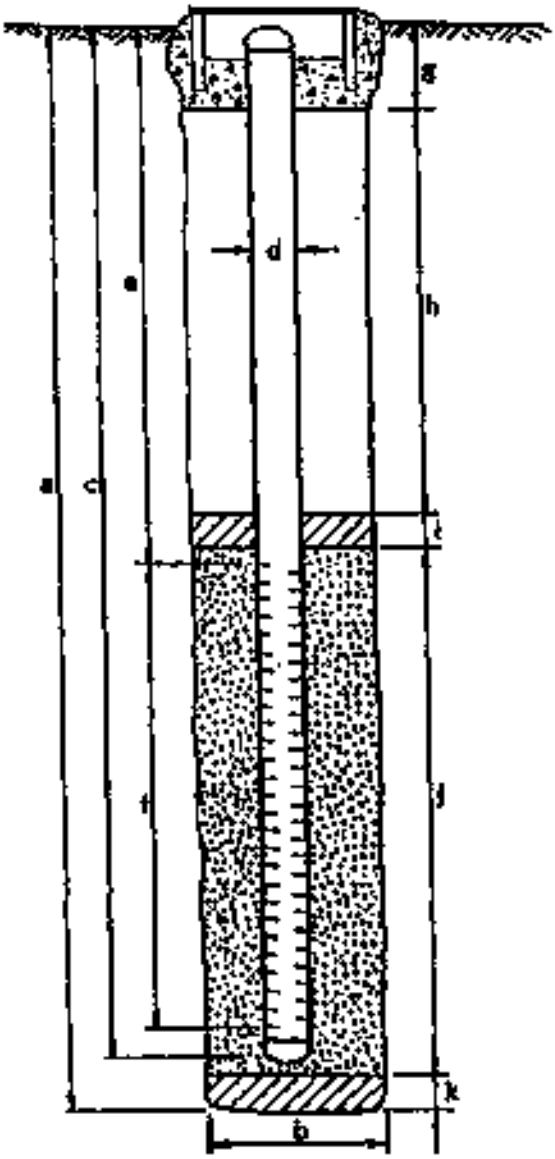
PROJECT NUMBER 800-85.01 BORING / WELL NO. C-3

PROJECT NAME G.-R. Chevron, Castro Vly. TOP OF CASING ELEV. 98.26

COUNTY Alameda GROUND SURFACE ELEV. ____

WELL PERMIT NO. ____ DATUM Project

G-5 vault box (Std.)



EXPLORATORY BORING

a. Total depth 30 ft.

b. Diameter 8 in.

Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Casing length 30 ft.

Material Schedule 40 PVC

d. Diameter 3 in.

e. Depth to top perforations 10 ft.

f. Perforated length 20 ft.

Perforated interval from 10 to 30 ft.

Perforation type Machined Slot

Perforation size 0.020 inch

g. Surface seal 1 ft.

Seal material Concrete

h. Backfill ____ ft.

Backfill material ____

i. Seal 1 ft.

Seal material Bentonite

j. Gravel pack (30 to 8 ft.) 22 ft.

Pack material Coarse Aquarium Sand

k. Bottom seal ____ ft.

Seal material ____

DRAFT

PLATE

#86-267 3S/2W10L5

WELL DETAILS

01-229D

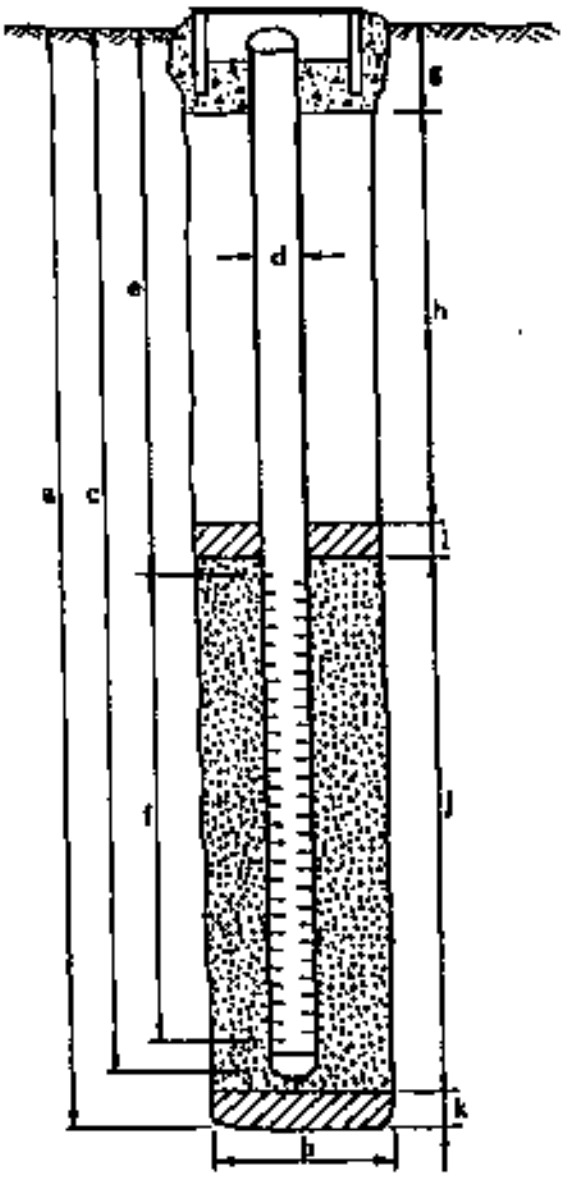
PROJECT NUMBER 800-85.01 BORING / WELL NO. C-4

PROJECT NAME G-R, Chevron, Castro Vly. TOP OF CASING ELEV. 100.07

COUNTY Alameda GROUND SURFACE ELEV. ____

WELL PERMIT NO. ____ DATUM Project

G-5 vault box (Std.)



EXPLORATORY BORING

a. Total depth 30 ft.

b. Diameter 8 in.

Drilling method Hollow-Stem Auger

WELL CONSTRUCTION

c. Casing length 30 ft.

Material Schedule 40 PVC

d. Diameter 3 in.

e. Depth to top perforations 10 ft.

f. Perforated length 20 ft.

Perforated interval from 10 to 30 ft.

Perforation type Machined Slot

Perforation size 0.020 inch

g. Surface seal 7 ft.

Seal material Concrete

h. Backfill - ft.

Backfill material - -

i. Seal 1 ft.

Seal material Bentonite

j. Gravel pack (30 to 8 ft.) 22 ft.

Pack material Coarse Aquarium Sand

k. Bottom seal - ft.

Seal material - -

DRAFT

PLATE

#86-267 INV ✓ AD ✓ 3S/2W 10L5 81-4283

LOG OF EXPLORATORY BORING

EMCON ASSOCIATES

PROJECT No. 900-81 DATE 10-01-86

CLIENT G.R. CHEVRON

LOCATION REDWOOD & GROVE, CASTRO VLY.

LOGGED BY ERL DRILLER BAYLAND

BORING No. C-4 Sheet 1 of 1

Field location of boring:

Ground Elev. 100.07 Datum [illegible]

Drilling method H.S. AUGER

Hole dia. 8"

Casing installation data SLOTTED 3" PVC FROM 30 to 10 FT; SOLID to SURFACE; SAND PACK to 8 FT; BENTONITE to 7 FT; CONCRETE to SURFACE.

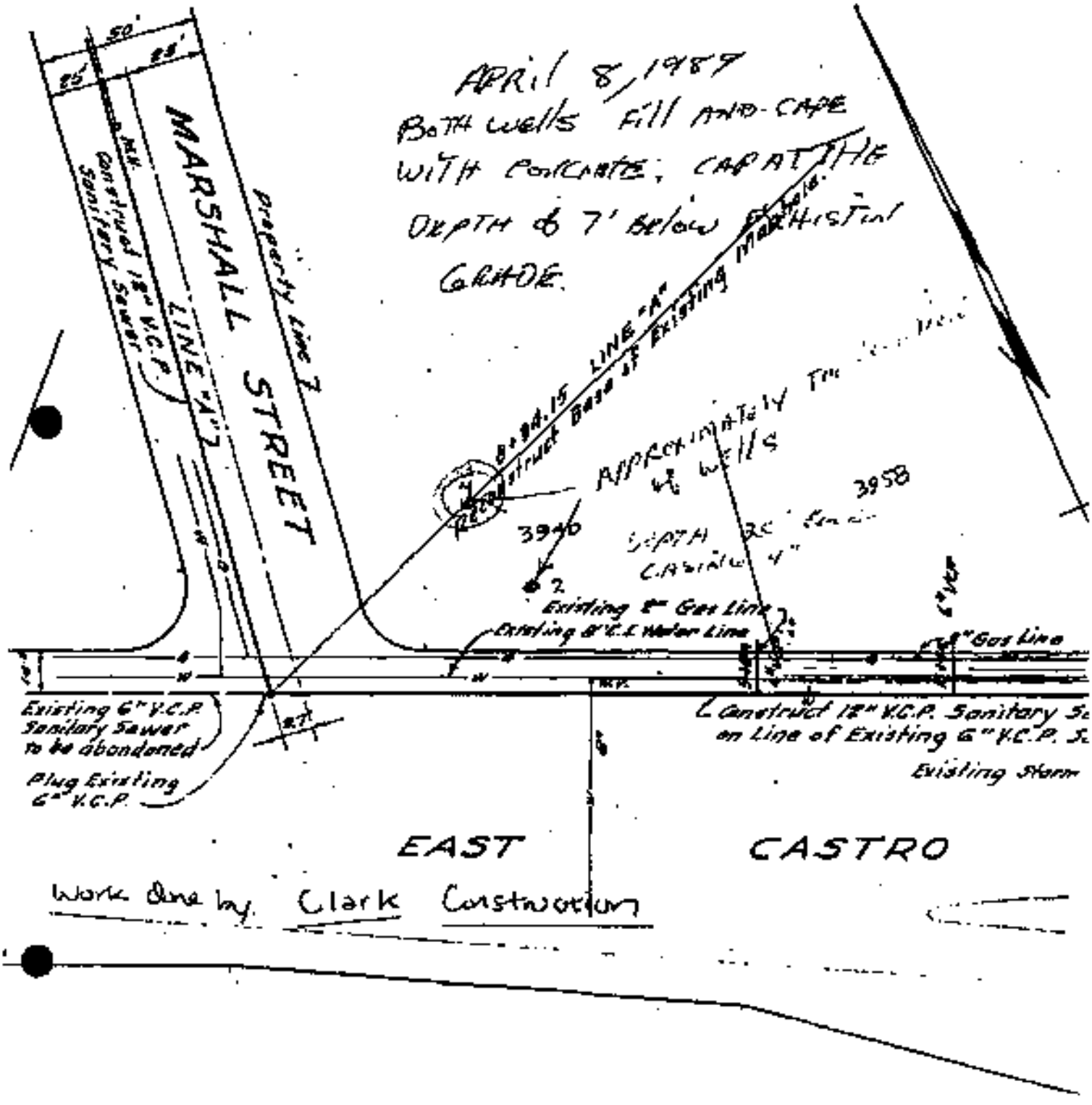
Water level	17.0'			
Time	1030			
Date	10-1-86			

Pocket Torvane TSF	Pocket Penetrometer TSF	Blows/ft. or Pressure (psi)	Type of Sample	Sample Number	Depth	Sample	Soil Group Symbol (U.S.C.S.)	DESCRIPTION
								SAND, GRAVEL, CLAY - FILL
					2			
								CLAY, DARK YELLOWISH BROWN (10YR 4/4)
	1.5	4/7/11	DR-L 100%	C4-5	4		CL	5-10% FINE to COARSE SAND; STIFF; MOIST; NPO; ROOT HOLES.
					6			
					8			CLAYEY SAND; DARK YELLOWISH BROWN (10YR 3/4); 20-25% HIGH PLASTICITY FINES; FINE to COARSE SAND; 10-20% FINE & COARSE GRAVEL; VERY STIFF; MOIST; NPO.
	2.5	11/20/32	DR-L 100%	C4-10	10		SC	
					12			
	1.5	20/35 11"	DR-L 100%	C4-15	14			@ 14 FT, STIFF; SAND; NPO.
					16		SC	
					18			
	2.0	15/14 11"	DR-L 100%	C4-20	20			@ 19 FT, VERY STIFF; WET; NPO
					22			SAND to SILTY SAND; YELLOWISH BROWN (10YR 5/6); 5-12% LOW PLASTICITY FINES; FINE GRAINED; TRACE COARSE GRAINED; VERY DENSE; WET; NPO
		34/50	DR-L 100%	C4-25	24		SP-SM	
					26			
					28			@ 29 FT, DENSE; NPO.
		50/6"	DR-L 75%	C4-30	30			BOTTOM OF BORING AT 30.5 FT.

PRELIMINARY

LAKESHORE FINANCIAL
3940 Castro Valley Blvd
Castro Valley

01-460E
3S/2W 10AA

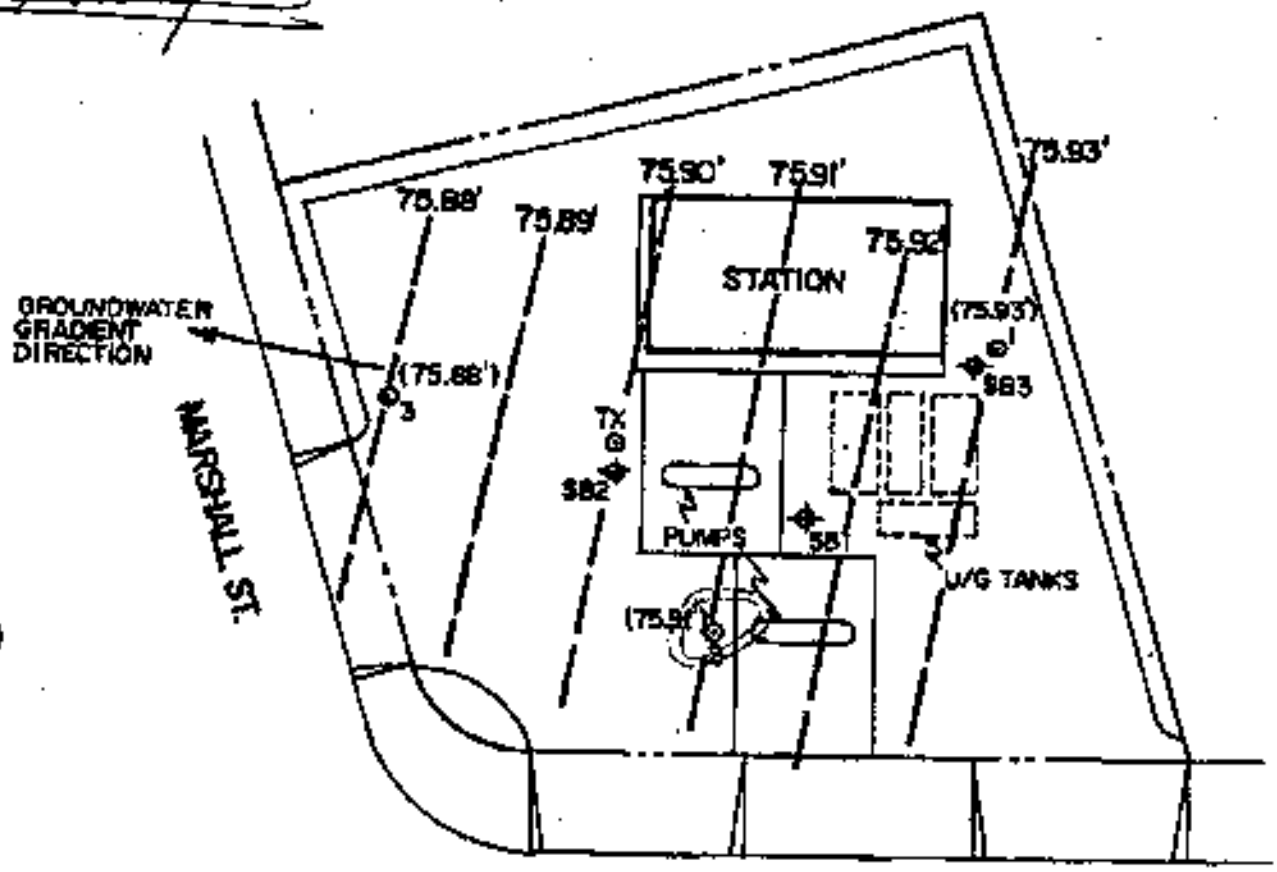


Work done by Clark Construction

EOA

Andy Hausbrandt

3S/2W 10AZ



LEGEND

- ⊙ MONITORING WELL
- ✦ SOIL BORING
- ( ) GROUNDWATER ELEVATION
- —— GROUNDWATER CONTOUR

Figure 1. Groundwater Gradient Map-12/13/88

TEXACO REFINING & MARKETING INC.
CASTRO VALLEY, CALIFORNIA

0 FEET 30

GROUNDWATER TECHNOLOGY

~~BOA~~

~~Andy Houseman~~

3S/2W 10A4

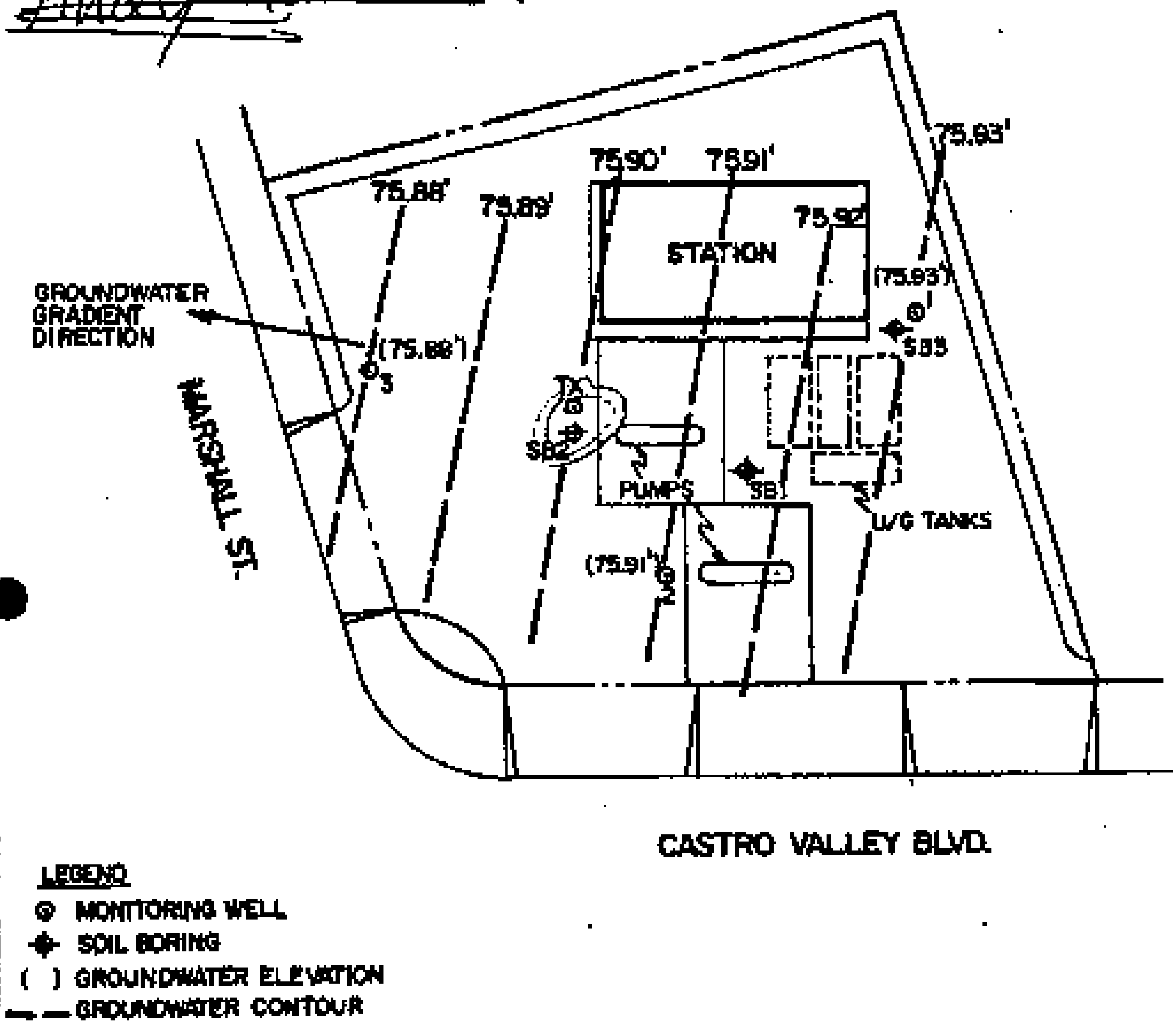


Figure 1. Groundwater Gradient Map-12/13/88

N

0 FEET 30

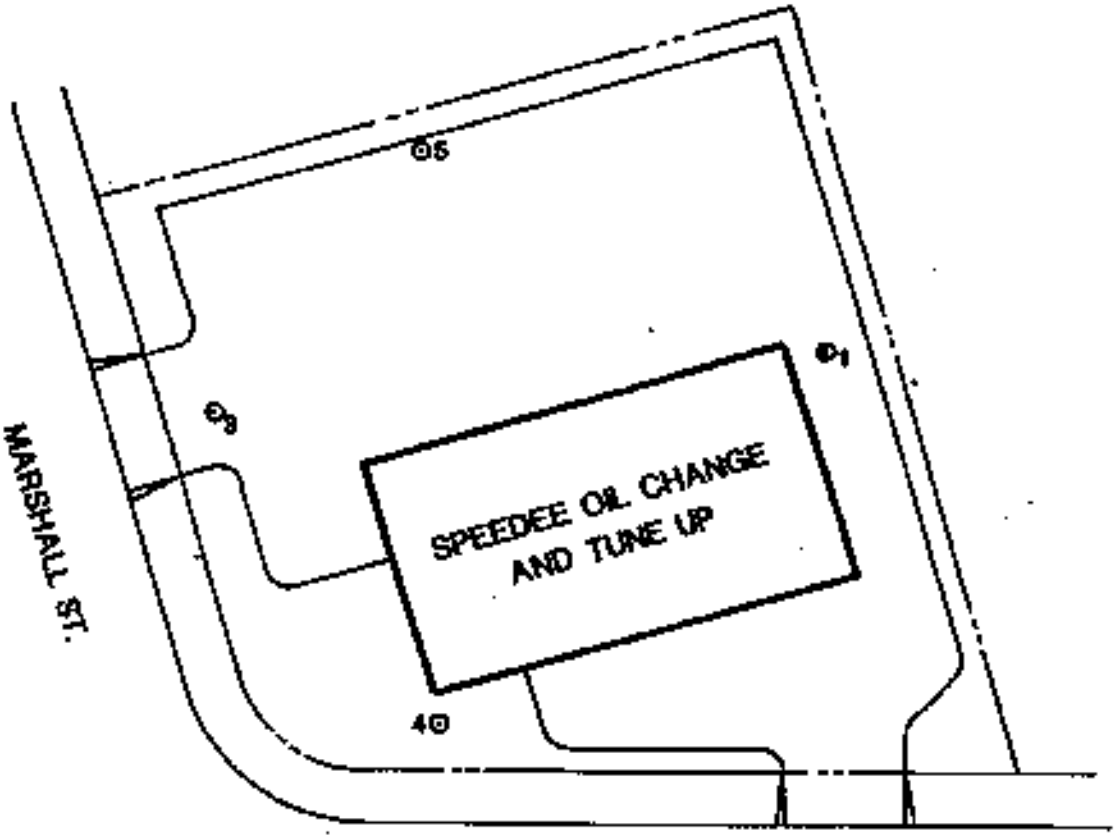
TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER
TECHNOLOGY

01-457V

INV ✓
Add ✓

3S/2W 10A(5



LEGEND
⊙ MONITORING WELL

Texaco
3940 Castro Valley Blvd
Castro Valley

Lic # C57 434343

0 FEET 30

TEXACO REFINING & MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY, INC.

35/2W10A5
01-4574

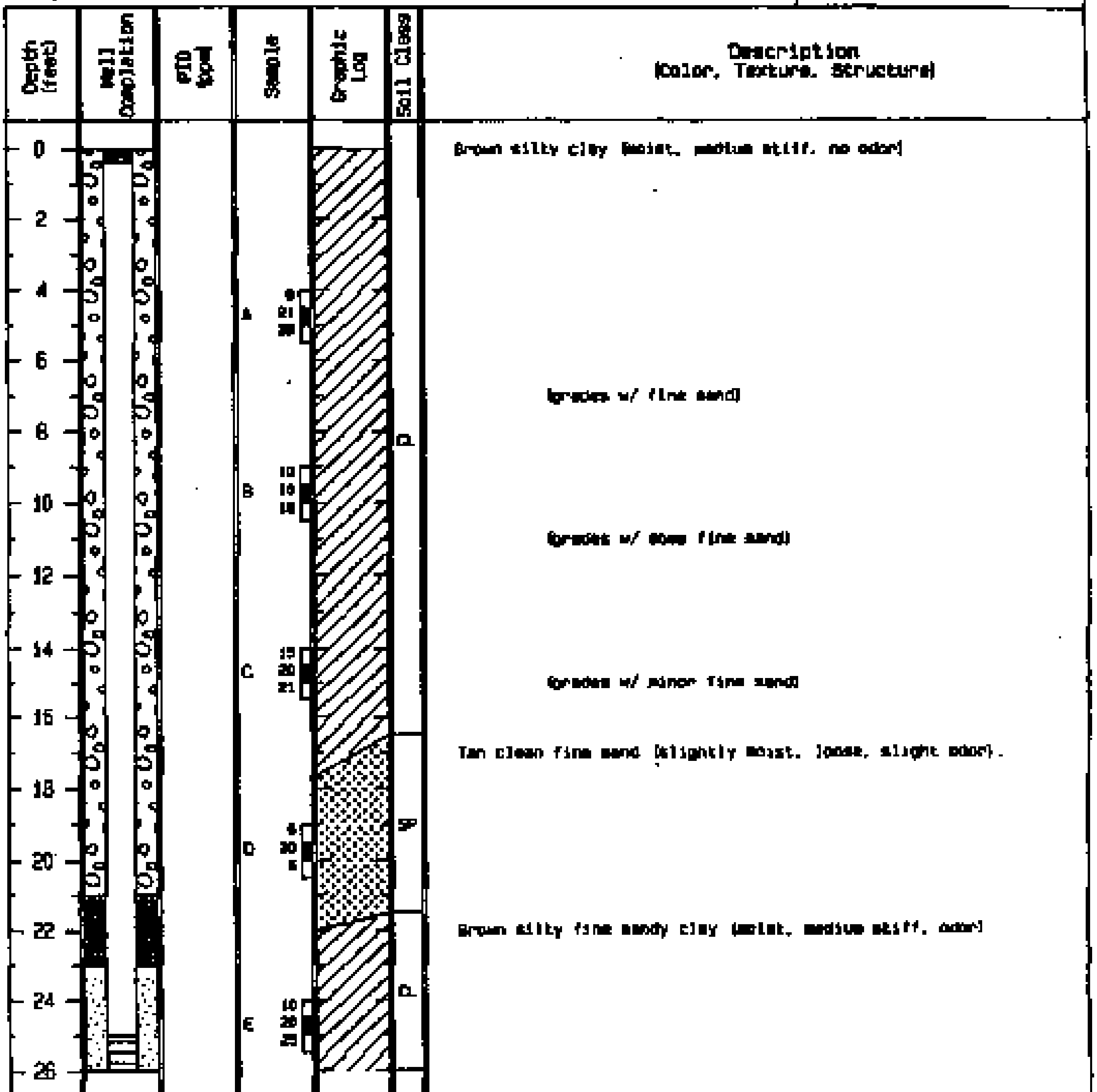
Monitoring Well 4

Drilling Log

Project Texaco/Castro Valley Owner Texaco Refining and Marketing
Location Castro Valley Rd. Project Number 805 180 4000
Date Drilled 4/03/90 Total Depth of Hole 41 ft. Diameter 10.5 in.
Surface Elevation ____ Water Level Initial 30 ft. 24-hour ____
Screen: Dia 4 in. Length 20 ft. Slot Size 0.020 in.
Casing: Dia 4 in. Length 23 ft. Type PVC
Filter Pack Material Lonestar #2/12 Sand Pack
Drilling Company Sierra Pacific Drilling Drilling Method Hollow Stem Auger
Driller Donald Harris Log by Steve Krasnak
Geologist/Engineer Allan B. Storm License No EG. 4304

See Site Map For Boring Location

NOTES

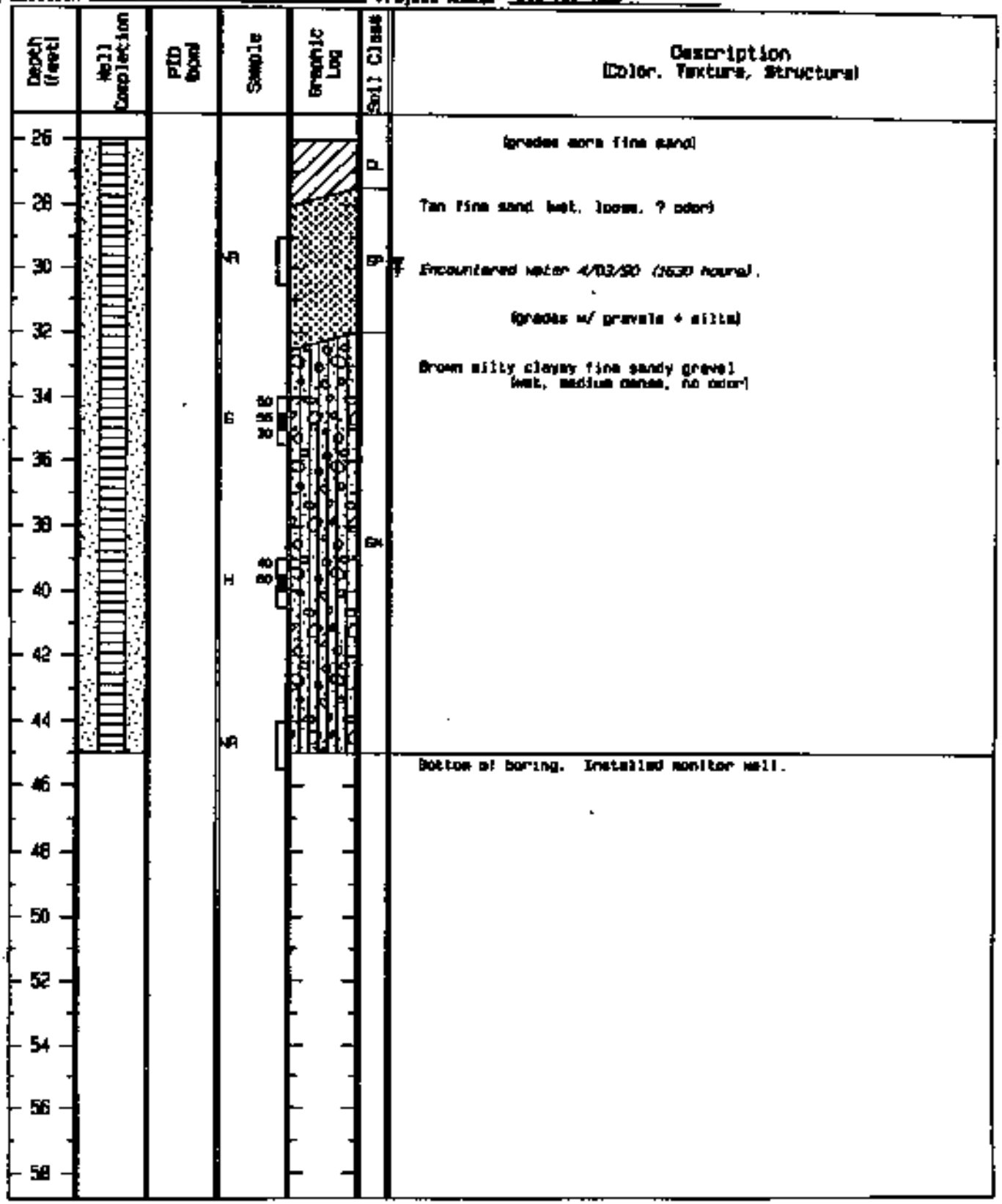


OL-457Y

3S/2W 10A5

Monitoring Well 4
Drilling Log

Project: Texaco/Castro Valley
Location: Castro Valley Rd.
Owner: Texaco Refining and Marketing
Project Number: 203.150.4090



34/2W10 4 b

01-4572

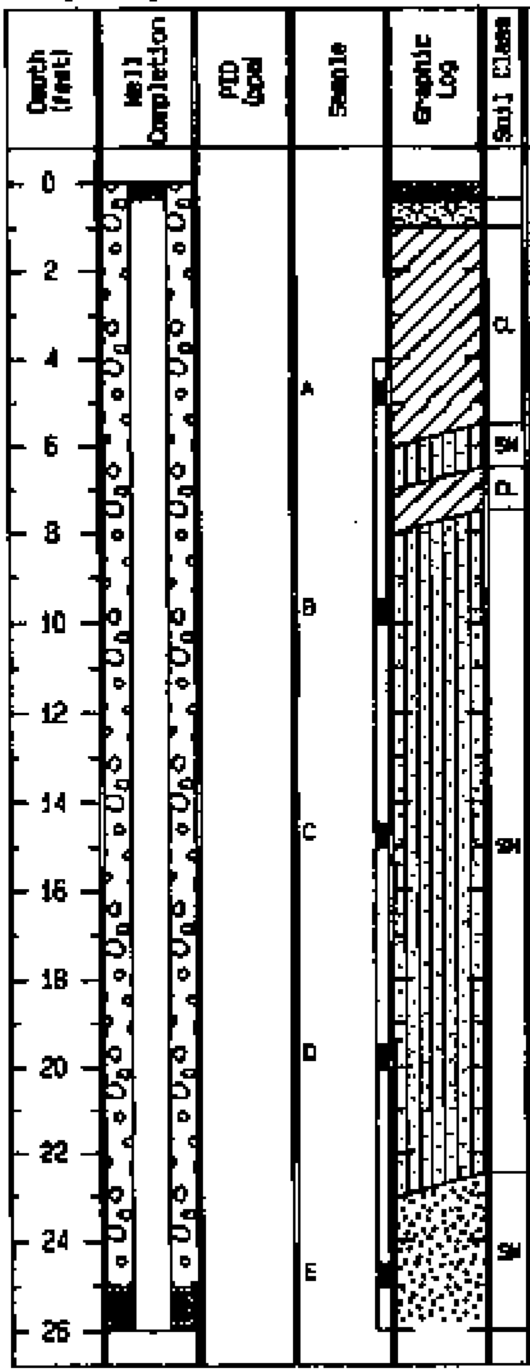
Monitoring Well 5

Drilling Log

Project: Texaco/Castro Valley Owner: Texaco Refining and Marketing
Location: Castro Valley Rd. Project Number: 203 150 4080
Date Drilled: 4/03/90 Total Depth of Hole: 45 ft. Diameter: 10.5 in.
Surface Elevation: ______ Water Level Initial: 33 ft. 24-hour: ______
Screen: Dia 4 in. Length 17 ft. Slot Size 0.020 in.
Casing: Dia 4 in. Length 28 ft. Type PVC
Filter Pack Material: Lonestar #2/12 Sand Pack
Drilling Company: Sierra Pacific Drilling Drilling Method: Hollow Stem Auger
Driller: Donald Harris Log by: Steve Bramuck
Geologist/Engineer: Allen E. Stone License No: RG. 4394

See Site Map For Boring Location

NOTES:



Description (Color, Texture, Structure)

5" Asphalt over 7" base course.

Dark gray silty clay (moist, medium stiff, no odor)

(grades light brown)

Tan silty fine sand.

Light brown silty clay (moist, medium stiff, no odor).

Tan silty fine sand (slightly moist, loose, no odor).

(grades to no silt)

(grades w/ some silt)

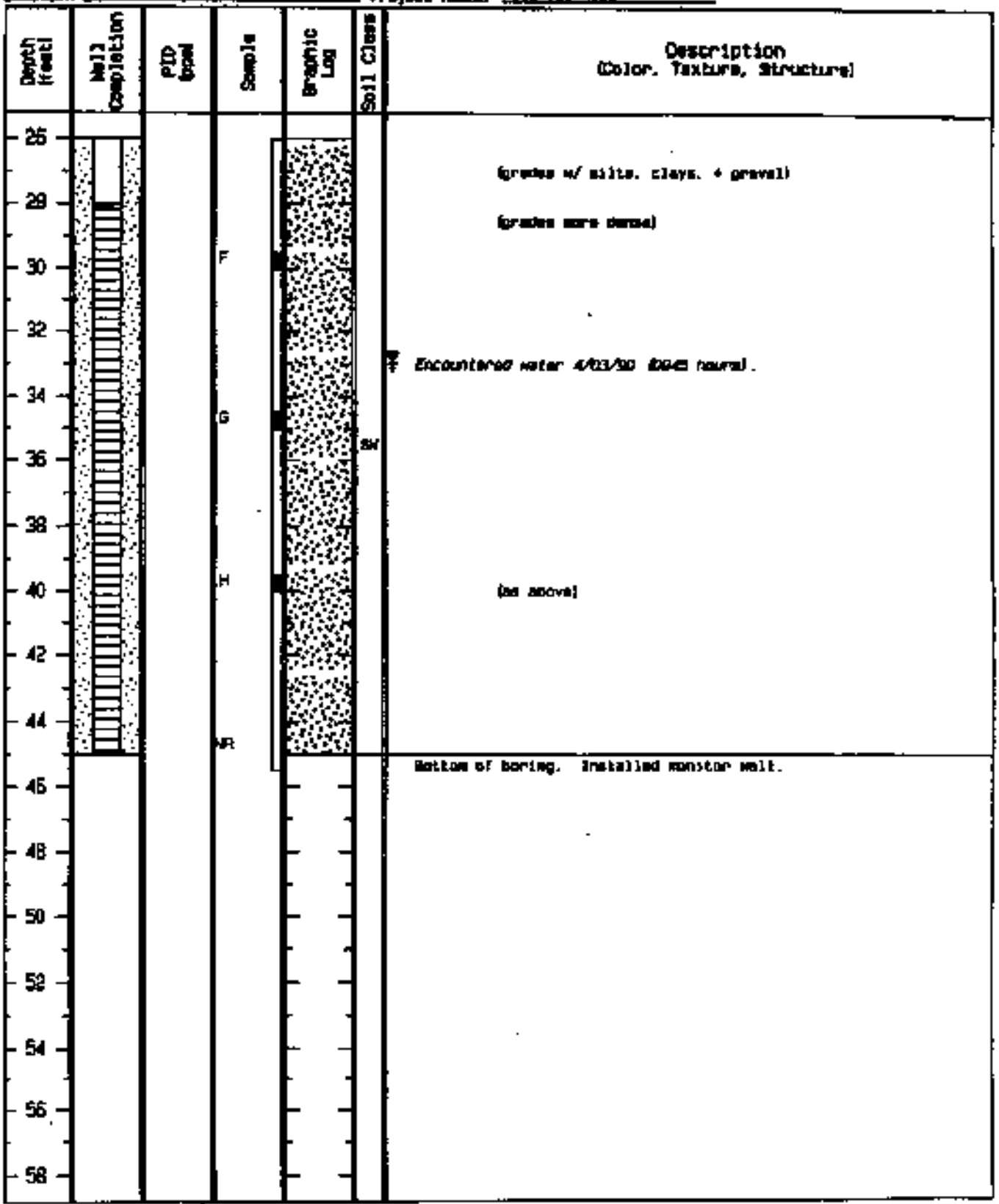
Tan fine to coarse sand (moist, loose, no odor)

05/04/1990

3S/2W 10A6 01-4573

Monitoring Well 5
Drilling Log

Project Texaco/Castro Valley Owner Texaco Refining and Marketing
Location Castro Valley Rd. Project Number 203 192 4080



05/04/1988

FIGURE 1

SITE LOCATION MAP

TEXACO REFINING & MARKETING INC.
3970 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA.

N

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

0 MILES

GROUNDWATER TECHNOLOGY

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

#97291 NP. ✓ AD. ✓ 164719A 35/2N/10A

Soil Boring 1

Drilling Log

Project Texaco Castro Valley Owner Texaco Refin. & Market

Location Castro Valley Project Number 203 150 4080

Date Drilled 11/20/87 Total Depth of Hole 35 ft. Diameter 7.5 in.

Surface Elevation ____ Water Level Initial 31 ft. 24-hr ____

Screen: Dia. ____ Length ____ Slot Size ____

Casing: Dia. ____ Length ____ Type ____

Drilling Company Sierra Pacific Drilling Method Hollow Stem Augur

Driller Todd Beard Log by Jan Prazil

Sketch Map: See Site Plan

Notes:

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					2 inches asphalt over 5 inches base course
2				CL	Gray sandy clay (medium stiff, dry, no product odor)
4		0	A 4 5 6		
6					Yellow, sandy clay (medium stiff, dry, no product odor)
8			B 1 2 3		
10		0			(grades yellow-brown, soft)
12				CL	
14		0	C 4 5 6		(grades medium stiff)
16					(grades sandy)
18					Brown, clayey, medium sand (medium stiff, dry, no product odor)
20		0	D 5 6 3		(grades moist)
22				SC	
24		0	E 1 2 3		

TEXACO REFINING & MKTG, INC.
8970 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA.

07100144

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 1

Drilling Log

164719A
3S/2W/10A

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structure)
26					Brown, clayey, medium sand (cont'd)
28			F	SC	
30		0	8 10 12		(grades very moist)
32					▼ Encountered water 11/20/87 (1055 hours) (grades more clayey)
34				CL	Brown, sandy clay (medium stiff, wet, no product odor)
36					End of boring, backfilled with concrete
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

02100144

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

164719 B
3S/2W10A

Soil Boring 2

Drilling Log

Project Texaco Castro Valley Owner Texaco Refin. & Market.
Location Castro Valley Project Number 203.150.4080
Date Drilled 11/20/87 Total Depth of Hole 25 ft. Diameter 7.5 in.
Surface Elevation ____ Water Level Initial 21 ft. 24-hrs. ____
Screen: Dia. ____ Length ____ Slot Size ____
Casing: Dia. ____ Length ____ Type ____
Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger
Driller Todd Byard Log by Jan Prazil

Sketch Map: See Site Plan

Notes:

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification
0					2 inches Asphalt over 5 inches base course
2				CL	Gray, sandy clay (medium stiff, dry, no product odor)
					Brown, silty clay (stiff, dry, no produce odor)
4			A 4 3 4		
6				CL	(grades sandy)
8			B 5 8 10		Light brown clayey sand (medium dense, dry, no product odor)
10				SC	(grades more clayey)
12					Light brown, silty clay (stiff,dry, no product odor)
14			C 6 5 7	CL	
16					(grades sandy, medium stiff)
18			D 8 5 4		Brown, sandy clay (medium stiff, dry, no product odor)
20					
22				CL	
24			E 8 6 10		(grades stiff)

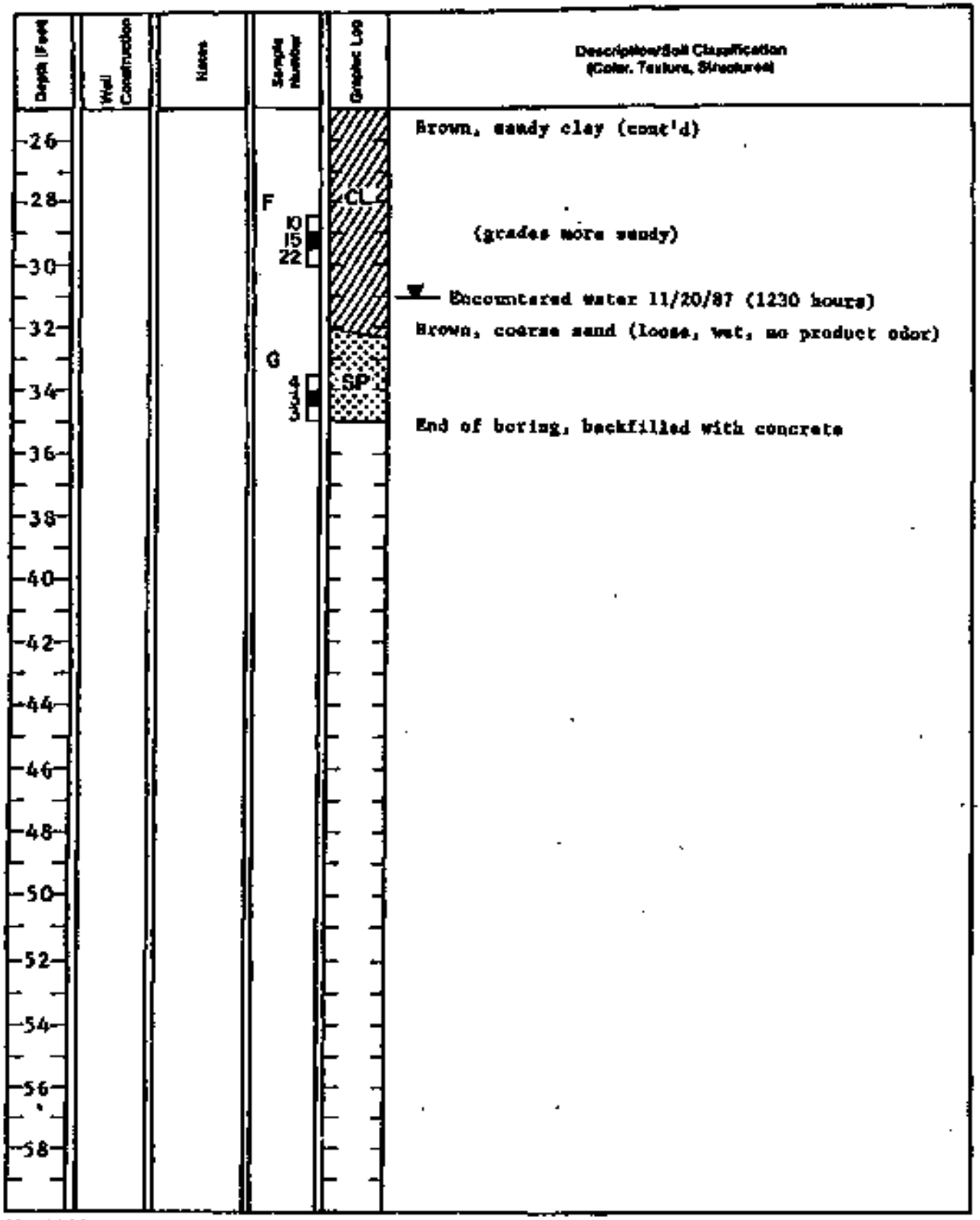
GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 2

#87281

164719B
3S/2W/10A

Drilling Log



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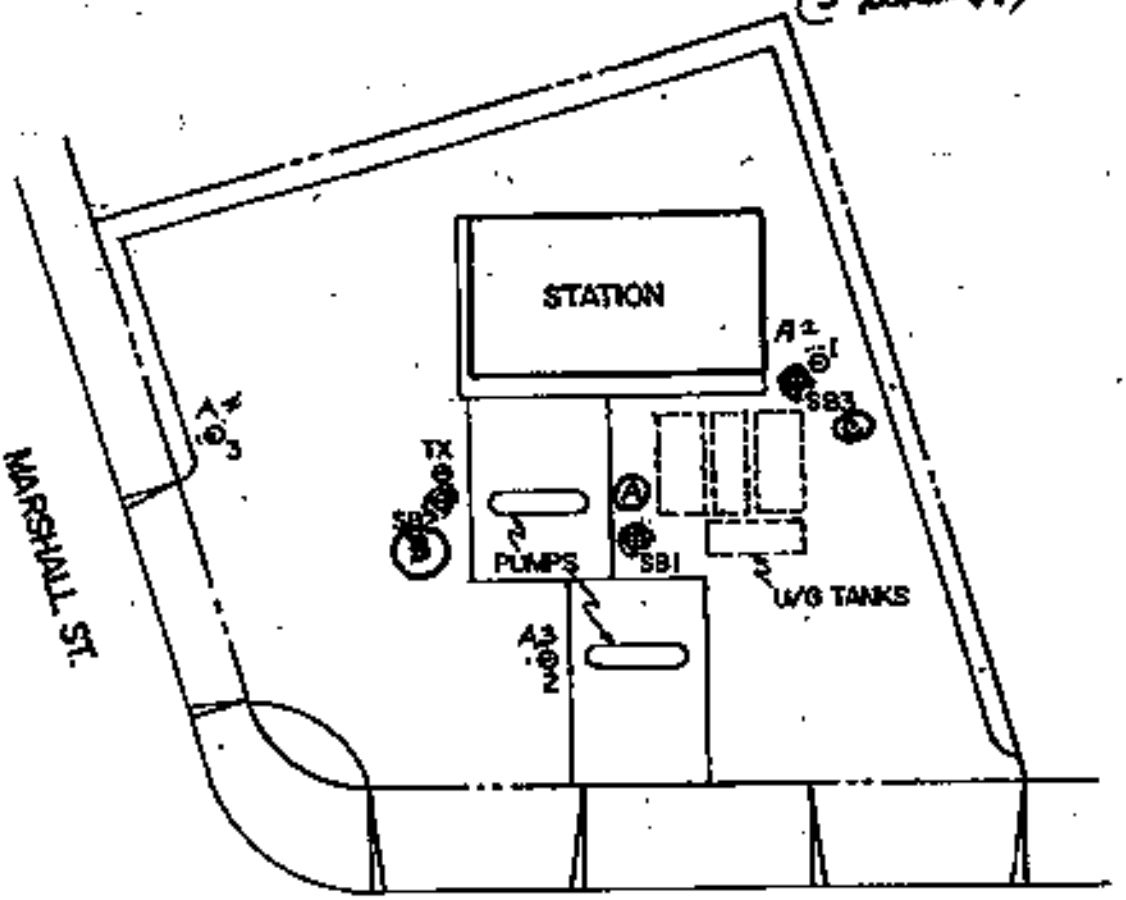
164719C

3S/2W10A
(3 BORINGS)



LEGEND
⊙ MONITORING WELL
⊛ SOIL BORING

FIGURE 2
SITE PLAN

0 FEET 30

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

164719C
3S/2N/10A

Soil Boring 3

Drilling Log

Project: Texaco Castro Valley Owner: Texaco Refin. & Market.
Location: Castro Valley Project Number: 203 150 4080
Date Drilled: 11/20/87 Total Depth of Hole: 25 ft. Diameter: 7.5 in.
Surface Elevation: Water Level, Initial: 24-hrs.
Screen: Dia. Length: Slot Size:
Casing: Dia. Length: Type:
Drilling Company: Sierra Pacific Drilling Method: Hollow Stem Auger
Driller: Todd Byard Log by: Jan Prasil

Sketch Map: See Site Map

Notes:

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification
0					2 inches asphalt over 5 inches base course
2				CL	Gray, sandy clay (medium stiff, dry, no product odor)
4			A 10 18 28	CL	Light brown, silty clay (very stiff, dry, no product odor)
6					(grades sandy, less silty)
8			B 8 13 15		Light brown, sandy clay (medium stiff, dry, no product odor)
10					
12				CL	(grades gray-green, silty)
14			C 25		(grades very stiff)
16					
18			D 5 6 7		Light brown, clayey, medium sand (medium dense, dry, no product odor)
20				SC	(grades brown)
22					
24			E 8 10 12		(grades more clayey)

GROUNDWATER TECHNOLOGY, INC.
OIL RECOVERY SYSTEMS

Soil Boring 3

164719C
35/2N/10A

Drilling Log

Depth (Feet)	Well Construction	Notes	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structure)
26					Light brown, clayey medium sand (cont'd)
28			F	SC	(grades moist)
30			2510 2511		
32					▼ Encountered water 11/20/87 (1520 hours)
34				CL	Brown sandy clay (medium stiff, wet, no product odor)
36					End of boring, backfilled with concrete
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					

02100144

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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for 7201 INV. ✓ AD. ✓ 3S/2W10A2-1 180493

FIGURE 1

SITE LOCATION MAP

TEXACO REFINING & MARKETING INC.
3990 CASTRO VALLEY BLVD.
CASTRO VALLEY, CA.

N

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

0 MILES

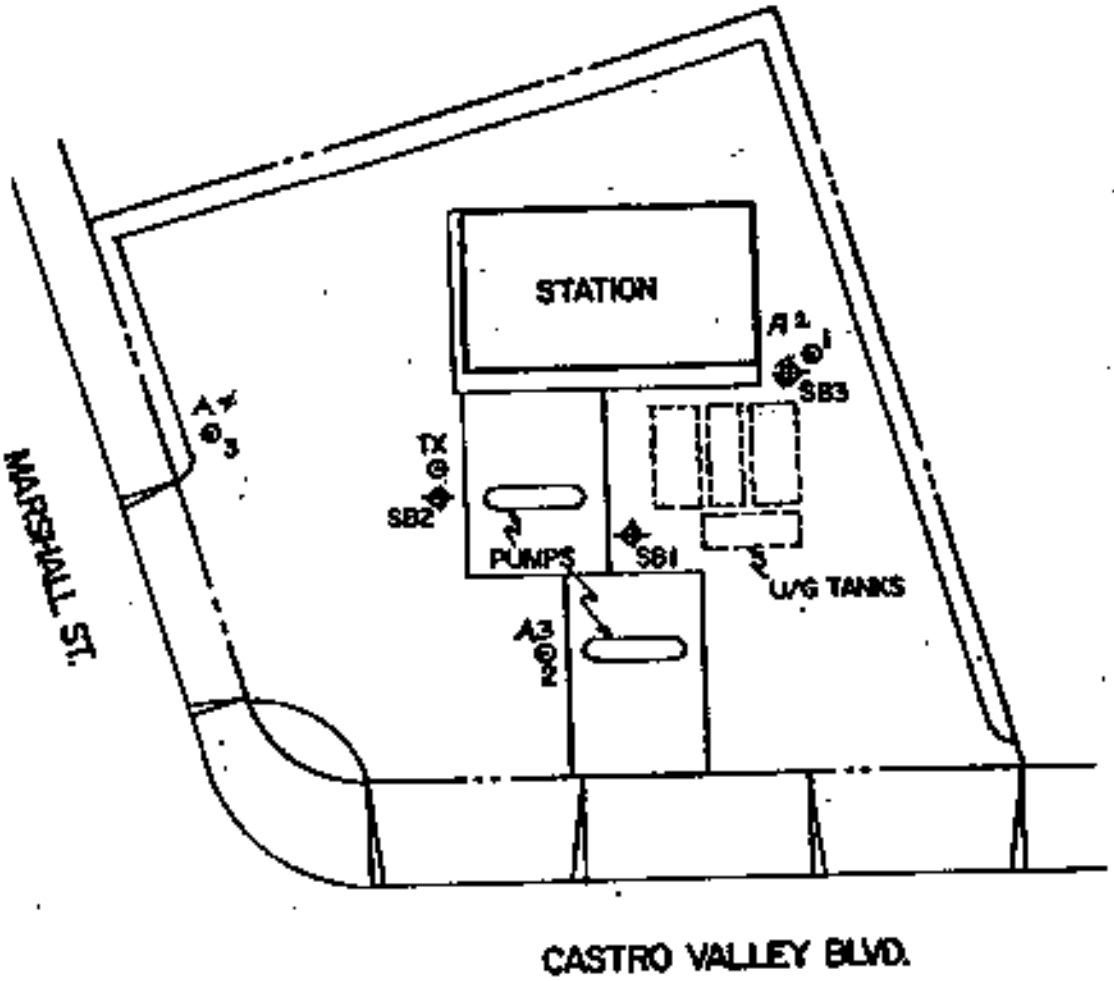
GROUNDWATER TECHNOLOGY

DRILLER: SIERRA PACIFIC

180493

36/2W10A2

#87281



LEGEND

⊕ MONITORING WELL

◆ SOIL BORING

FIGURE 2

SITE PLAN

0 FEET 30

TEXACO REFINING & MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

INV. ✓
AD. ✓

180493

35/2W10A2

GROUNDWATER #87121
TECHNOLOGY, INC.

Monitoring Well 1

Drilling Log

Project TEXACO CASTRO VALLEY Owner TEXACO REF. AND MARK. INC.
Location CASTRO VALLEY, CA Project Number 203-150-4080
Date Drilled 12/16/87 Total Depth of Hole 48 FT Diameter 10.5 IN.
Surface Elevation ____ Water Level Initial 28 FT 24-hour ____
Screen: Dia. 4 IN. Length 40 FT Slot Size .020 IN.
Casing: Dia. 4 IN. Length 5 FT Type PVC
Drilling Company SIERRA PACIFIC Drilling Method HOLLOW STEM AUGER
Driller TODD BYARD Log by JAN PRASIL
Geologist / Engineer ____ License No. ____

Sketch Map

SEE SITE PLAN

Notes

Description/Soil Classification (Color, Texture, Structures)
2 inches of asphalt over 5 inches base course
Dark brown, sandy, silty clay (Medium stiff, dry, no product odor)
(Grades light brown with black mottling, less sandy, stiff)
(Grades brown)
Light brown clayey, silty, fine sand (Medium dense, dry, no product odor)
Brown silty, clay (Stiff, moist, no product odor)
(Grades sandy)
Brown clayey, fine sand (Medium dense, moist, no product odor)
Brown silty clay (Stiff, moist, no product odor)
(Grades reddish brown with grey and black mottling)

Page 1 of 2

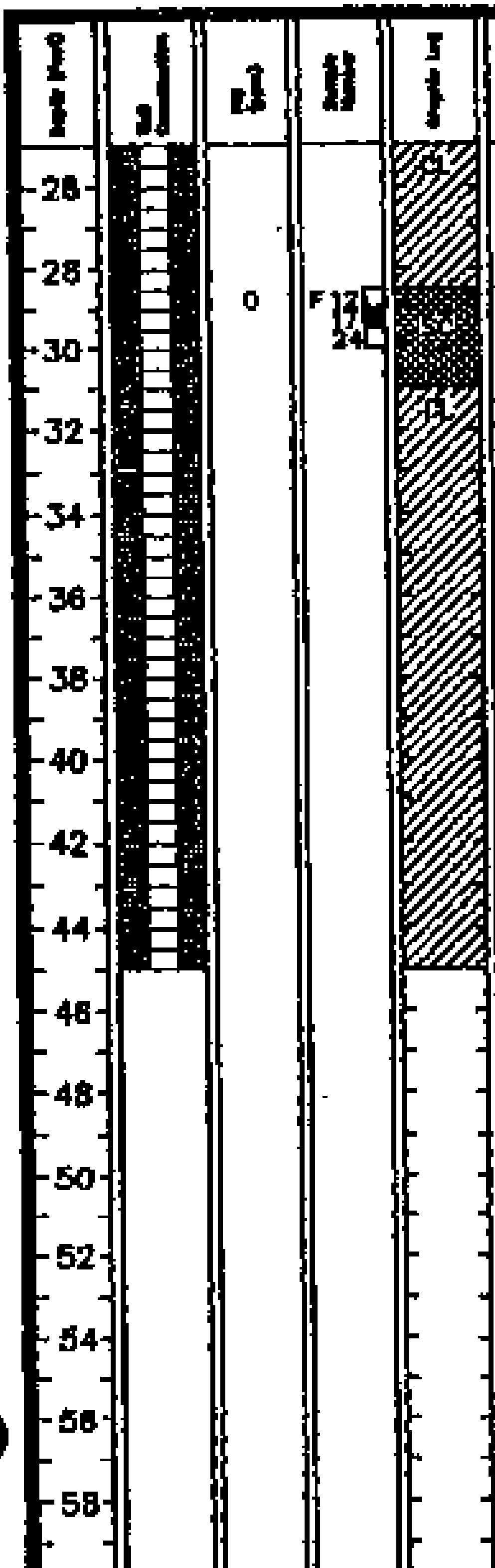
180493

3S/2W/10A2

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 1

Drilling Log



Description/Soil Classification
(Color, Texture, Structures)

Reddish-brown, silty clay
(Continued)
(Grades sandy)

Encountered water 12/16/87 (1305 hours)

Reddish-brown, clayey, course sand
(Dense, wet, no product odor)

Brown, silty clay
(Medium stiff, wet, no product odor)

(Grades with pebbles)

End of boring, installed monitoring well

TABLE 1

ANALYTICAL LABORATORY RESULTS - SOIL SAMPLES
[ppm]

SAMPLE	DEPTH (FT.)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	BTEX	TOG	METHYLENE CHLORIDE	CHLOROFORM	MISC. HYDRO-CARBONS (C4-12)	TPH as GASOLINE
SB 1 C	(14-14.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 1 F	(29-29.5)	ND	0.95	ND	ND	-	ND	1.9	0.025	ND	ND
SB 2 B	(9- 9.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 2 F	(28-28.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 3 C	(14-14.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
SB 3 F	(29-29.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND
MW 1 E	(24-24.5)	ND	ND	0.24	2.0	-	-	ND	ND	-	-
MW 2 E	(24-24.5)	ND	ND	ND	ND	ND	-	-	-	14.0	14.0
MW 3 E	(24-24.5)	ND	ND	ND	ND	ND	-	-	-	ND	ND

ANALYTICAL LABORATORY RESULTS - WATER SAMPLES
[ppb]

SAMPLE	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENE	BTEX	MISC. HYDRO-CARBONS (C4-12)	TPH AS GASOLINE
SB 1	70	9	4	1,400	1,700	27,000	29,000
MW-1	15	12	3	190	220	1,900	2,100
MW-2	220	16	3	150	390	2,000	2,400
MW-3	ND	ND	ND	ND	ND	ND	ND

ND = Less than Practical Quantitation Levels as per EPA Federal Register
TOG = Total Oil and Grease
TPH = Total Petroleum Hydrocarbons
BTEX = Total Benzene, Toluene, Ethylbenzene, Xylene

T4080A

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WELL COMPLETION REPORT
(WELL LOGS)

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STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

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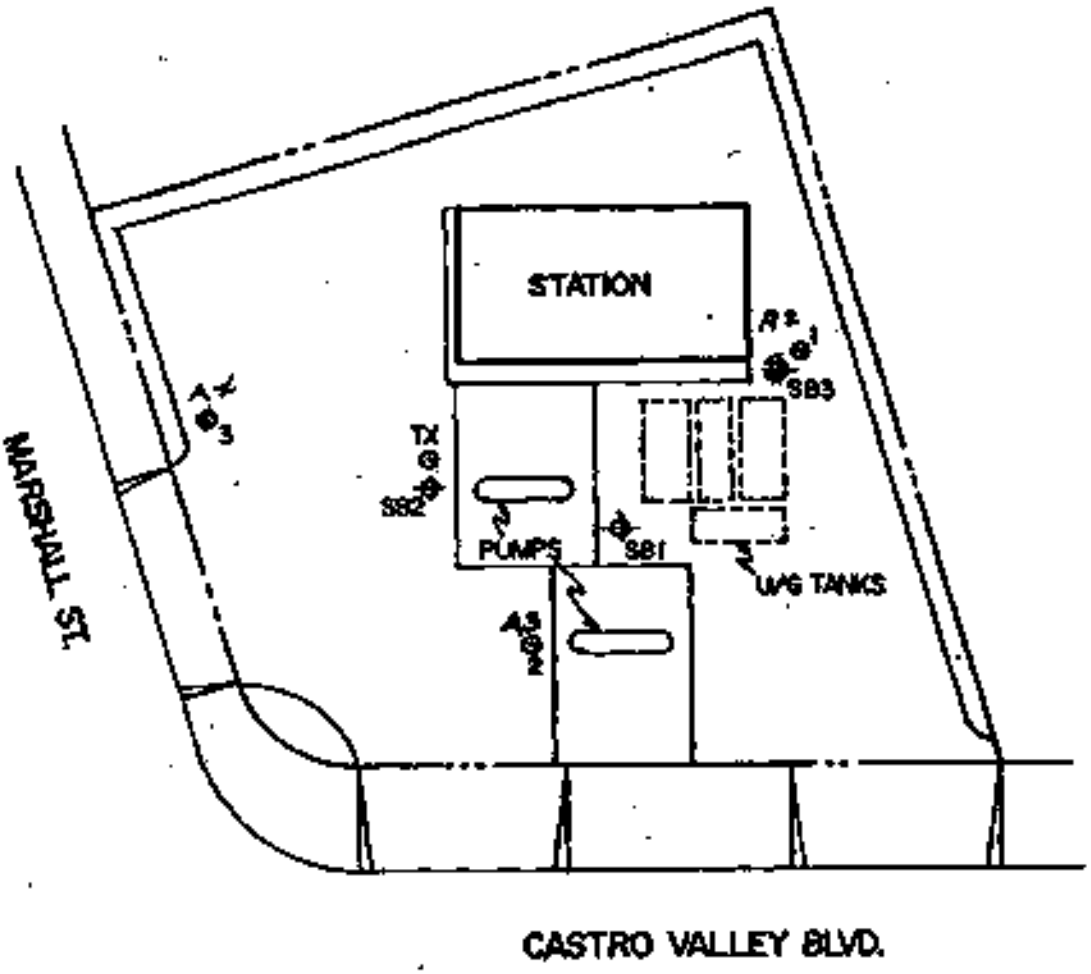
180499

36/2W/10A3

#872281



LEGEND
- ⊕ MONITORING WELL
- ◆ SOIL BORING

FIGURE 2
SITE PLAN

0 FEET 30

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

#87281 INV. ✓ AP. ✓ 180499 3S/2W/0A3

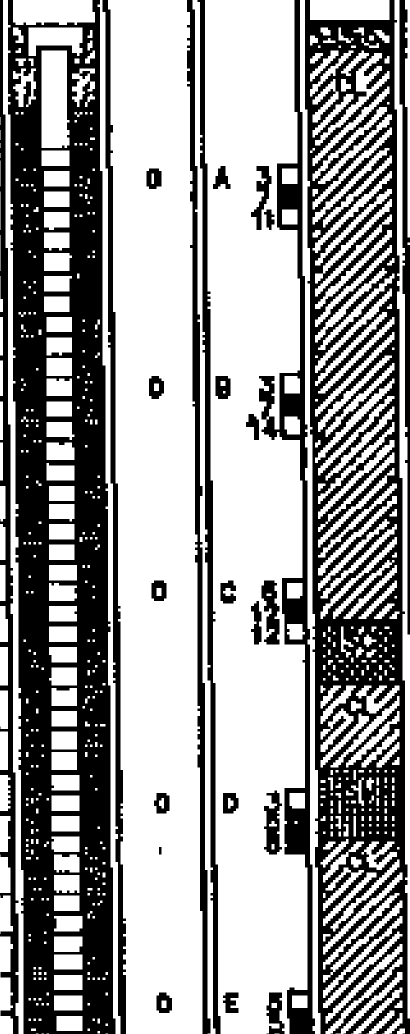
GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2 — Drilling Log

Project: TEXACO CASTRO VALLEY — Owner: TEXACO REF. AND MARK. INC.
Location: CASTRO VALLEY, CA — Project Number: 203-150-4080
Date Drilled: 12/17/87 — Total Depth of Hole: 38 FT — Diameter: 10.5 IN.
Surface Elevation: — Water Level Initial: 23.5 FT — 24-hour:
Screen: Dia. 4 IN. — Length: 35 FT — Slot Size: .020 IN.
Casing: Dia. 4 IN. — Length: 3 FT — Type: PVC
Drilling Company: SIERRA PACIFIC — Drilling Method: HOLLOW STEM AUGER
Driller: TODD BYARD — Log by: JAN PRASIL
Geologist / Engineer: — License No.:

Sketch Map: SEE SITE PLAN

Notes:



				Description/Soil Classification (Color, Texture, Structures)
0				2 inches of asphalt over 5 inches base course
				Brown-grey silty, sandy clay (Medium stiff, dry, no product odor)
4	0	A	3 / 7 / 11	(Grades dark brown, stiff)
7				(Grades light brown, less sandy)
9	0	B	3 / 7 / 14	(Grades brown, more sandy)
14	0	C	[illegible] / 12 / 12	(Grades light brown, more sandy)
15				Light brown clayey, silty, fine sand (Medium dense, moist, no product odor)
16				Light brown silty clay (Stiff, moist, no product odor)
19	0	D	3 / [illegible] / 8	Light brown silty, clayey, medium sand (Loose, moist, no product odor)
20				Light brown silty clay (Stiff, moist, no product odor)
22				(Grades brown, with pebbles)
23.5				▼ Encountered water 12/17/87 (1035 hours)
24	0	E	5 / [illegible] / [illegible]	

1/89 REV. 0

180499
35/2W10A3

#87281

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 2

Drilling Log

Description/Soil Classification (Color, Texture, Structures)
Brown silty clay with pebbles (Continued)
(Grades light brown)
Brown fine sandy clay (SUN, wet, no product odor)
End of drilling, installed monitoring well

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WELL COMPLETION REPORT
(WELL LOGS)

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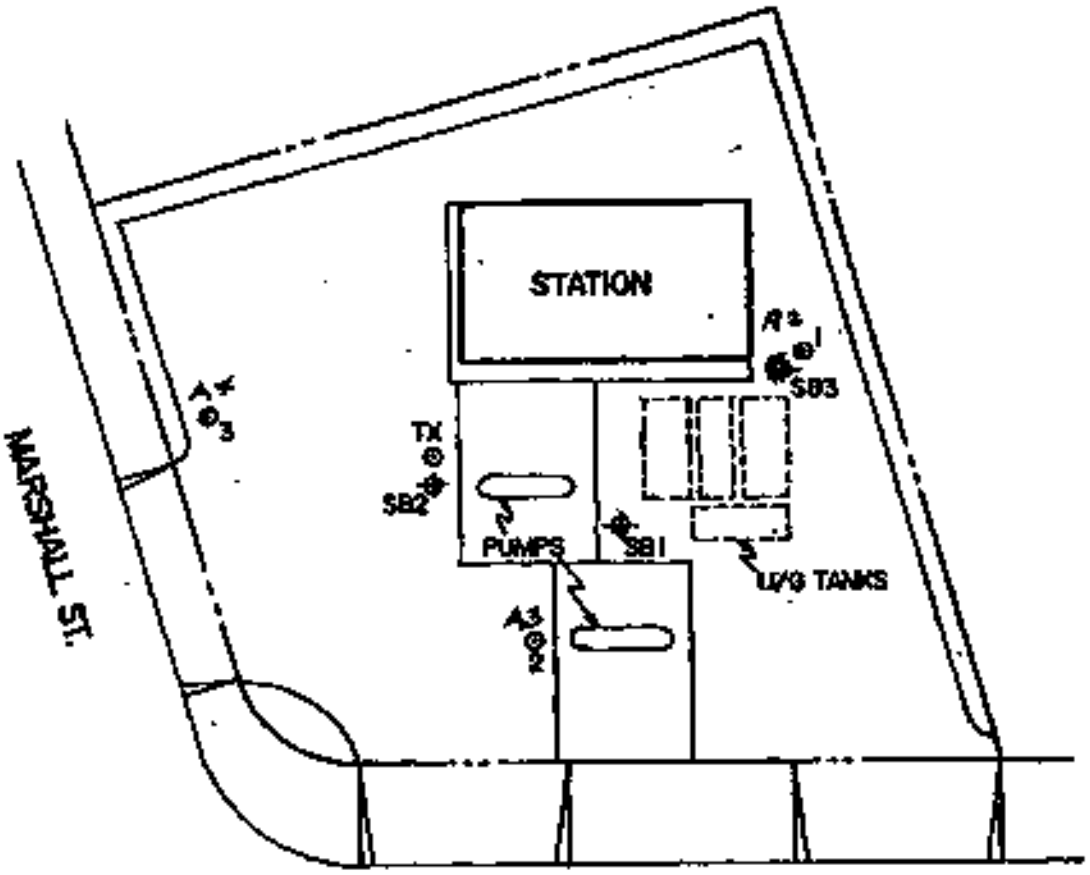
180498

36/2W10A4

187201



LEGEND
- ⊕ MONITORING WELL
- ✦ SOIL BORING

FIGURE 2
SITE PLAN

N

0 FEET 30

TEXACO REFINING
& MARKETING INC.
CASTRO VALLEY, CALIFORNIA

GROUNDWATER TECHNOLOGY

#07281

INV. ✓
AD. ✓

180498

3S/2W10A4

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

Drilling Log

Project TEXACO CASTRO VALLEY Owner TEXACO REF. AND MARK. INC.
Location CASTRO VALLEY, CA Project Number 203-150-4060
Date Drilled 12/17/87 Total Depth of Hole 40 FT Diameter 10.5 IN.
Surface Elevation Water Level Initial 24 FT 24-hour
Screen: Dia. 4 IN. Length 35 FT Slot Size .020 IN.
Casing: Dia. 4 IN. Length 5 FT Type PVC
Drilling Company SIERRA PACIFIC Drilling Method HOLLOW STEM AUGER
Driller TODD BYARD Log by JAN PRASIL
Geologist / Engineer License No.

Sketch Map

SEE SITE PLAN

Notes

Depth (ft)	Description/Soil Classification (Color, Texture, Structures)
0	2 inches of asphalt over 5 inches base course
2	Brown-grey silty, sandy clay (Medium stiff, dry, no product odor)
4	(Grades brown, stiff, less sandy)
6	(Grades more sandy)
8	Light brown clayey, silty, fine sand (Loose, dry, no product odor)
10	Light brown, silty clay (Stiff, dry, no product odor)
12	(Grades brown)
14	(Grades sandy) Light brown, silty, clayey, medium sand (Medium dense, moist, no product odor)
16	Light brown, silty clay (Stiff, moist, no product odor)
18	Light brown, silty, clayey, medium sand (Loose, moist, no product odor)
20	Light brown, silty clay (Stiff, moist, no product odor)
22	
24	▼ Encountered water 12/17/87 (1505 hours)

#87281

180498

3S/2W10A4

GROUNDWATER TECHNOLOGY, INC.

Monitoring Well 3

Drilling Log

Depth (ft)					Description/Soil Classification (Color, Texture, Structures)
26				CL	Light brown, silty clay (Continued) (Grades brown, with pebbles) (Grades sandy, wet)
28			F 15 25 28	SC	Dark brown, clayey, medium sand (Very dense, wet, no product odor)
30		0			
32				CL	Light brown, silty, sandy clay (Wet, medium stiff, no product odor)
34		0			
36					(Grades more sandy)
38					(Grades brown)
40		0			End of boring. Installed monitoring well
42					
44					
46					
48					
50					
52					
54					
56					
58					

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WELL COMPLETION REPORT
(WELL LOGS)

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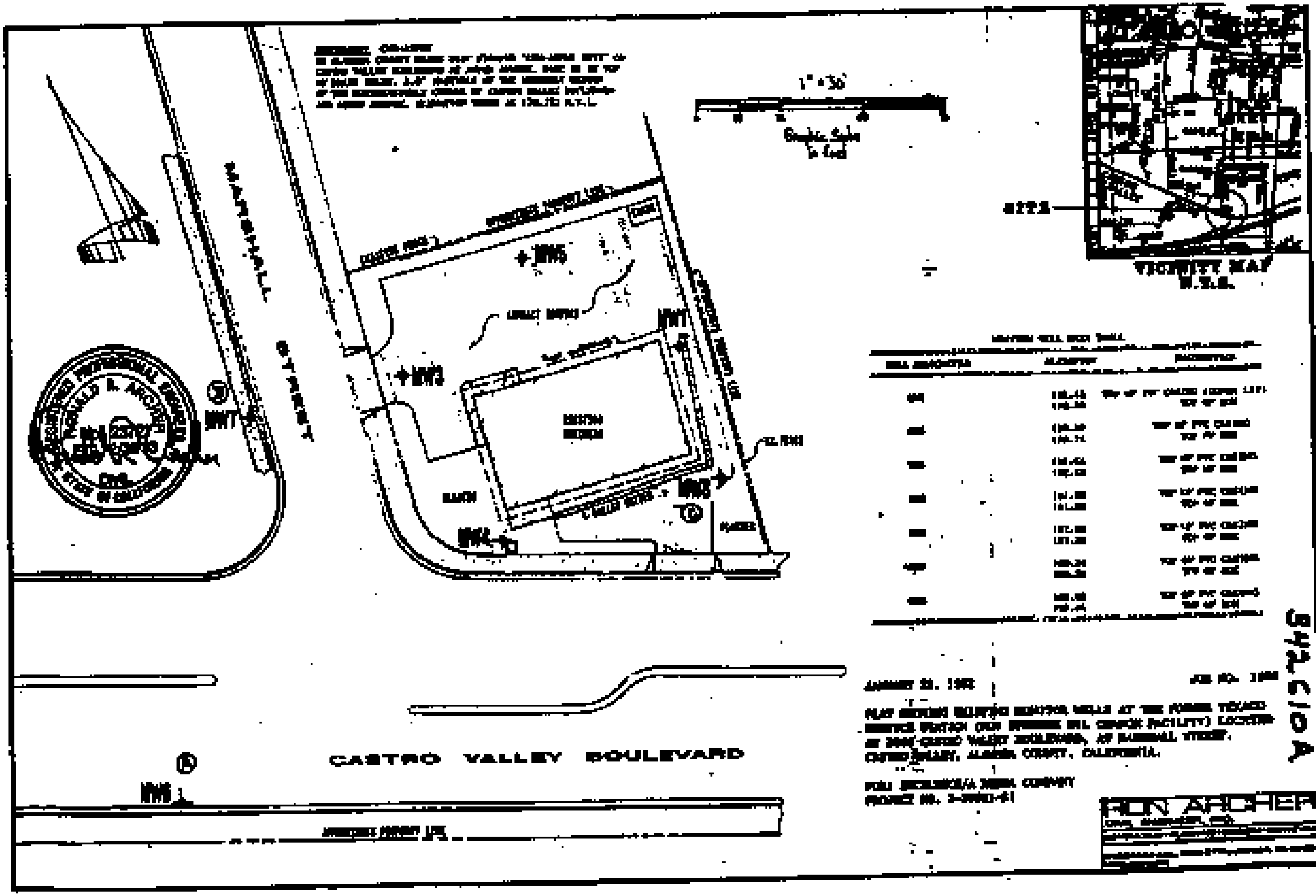


1" = 30'
Graphic Scale in feet
SITE
VICINITY MAP
N.T.S.
MARSHALL STREET
CASTRO VALLEY BOULEVARD
MW1
MW2
MW3
MW4
MW5
MW6
MW7
ALAMEDA COUNTY, CALIFORNIA.
RON ARCHER

342610A 05 02W 10107

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-6
Date Drilled: 1/20/91
Logged By: N.L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
				4" asphalt, 8" aggregate base		
1–3			CL	SILTY CLAY, possible artificial fill olive brown (2.5Y 4/4), silt ~20%, sand ~15%, stiff, moist		
4–9	6-1		CL	SILTY CLAY, yellowish brown (10YR 4/5), silt ~ 20%, sand 5-10%, medium stiff, moist		
10–11	6-2	9	ML/CL	CLAYEY SILT, yellowish brown (10YR 4/5), clay ~20%, sand ~10-15%		3.1
12–16	6-3	11		increasing silt, pockets of silty sand		2.4
17–20			SW	SAND, dark yellowish brown, (10YR 4/4), ~ 10-15% silt, well graded, medium dense, saturated (small perched zone)	▼	
21	6-4	13	CH/CL	CLAY, brown (10YR 5/3), ~10% silt, ~5% sand, very stiff, moist		

REVIEWED BY R.G./C.E.G.

342610A 03S02W10A07

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station
3940 Castro Valley Boulevard
Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-6

Date Drilled: 1/20/91

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
22				CLAY, continued		
23						
24						
25						
26		18		Becoming gravelly		3.0
27						
28						
29					▽	
30		30	GP	GRAVEL, brown to yellowish brown (10YR 4/3 to 10YR 5/8), sand ~25-30%, gravel poorly graded, subangular to subrounded, <1/2-inch diameter, medium dense, saturated		2.8
31						
32						
33						
34			SP	SAND, brown (10YR 4/3), poorly graded, silt ~15%, flowing, loose		
35						
36						
37			GP	GRAVEL, brown to yellowish brown (10YR 4/3 - 10YR 5/8), sand ~25-30%; gravel poorly graded, includes shale, sandstone, medium dense		
38						
39				Bottom of boring: 38 feet		
40				Groundwater encountered: 29 feet		
41						
42						

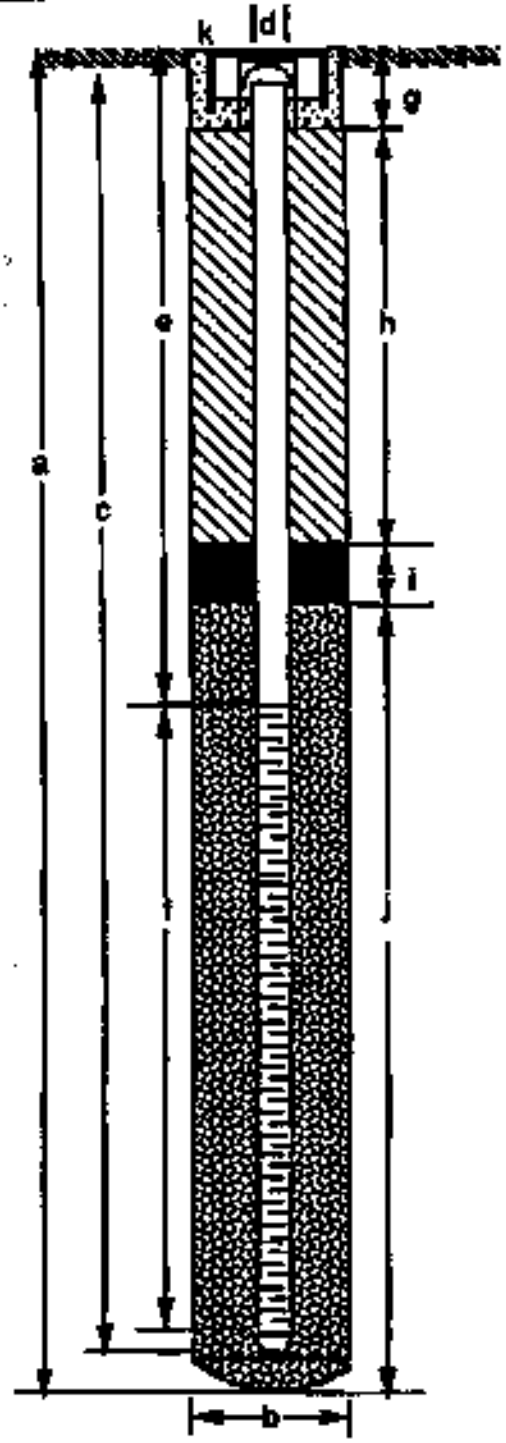
REVIEWED BY R.G./C.E.G.

342610A
035021 today

RESNA

MONITORING WELL DETAIL

Project Number	3-30091-31	Boring/Well No.	MW-6
Project Name	Former Texaco Service Station	Top of Casing Elev.	187.30
County	Alameda	Ground Surface Elev.	187.50
Well Permit No.	91685	Datum	Mean Sea Level



EXPLORATORY BORING

a. Total depth 38 ft.

b. Diameter 12 in.

Drilling method Hollow stem auger

WELL CONSTRUCTION

c. Casing length 38 ft.

Material Schedule 40 PVC

d. Diameter 4 in.

e. Depth to top perforations 26 ft.

f. Perforated length 12 ft.

Perforated interval from 38 to 26 ft.

Perforation type Slot

Perforation size 0.02 in.

g. Surface seal 2 ft.

Seal material Concrete

h. Backfill 21 ft.

Backfill material Neat Cement

i. Seal 2 ft.

Seal material Bentonite

j. Gravel pack 13 ft.

Pack material 2/12 sand

k. 12" diameter traffic-rated vault box, locking expansion cap

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WELL COMPLETION REPORT
(WELL LOGS)

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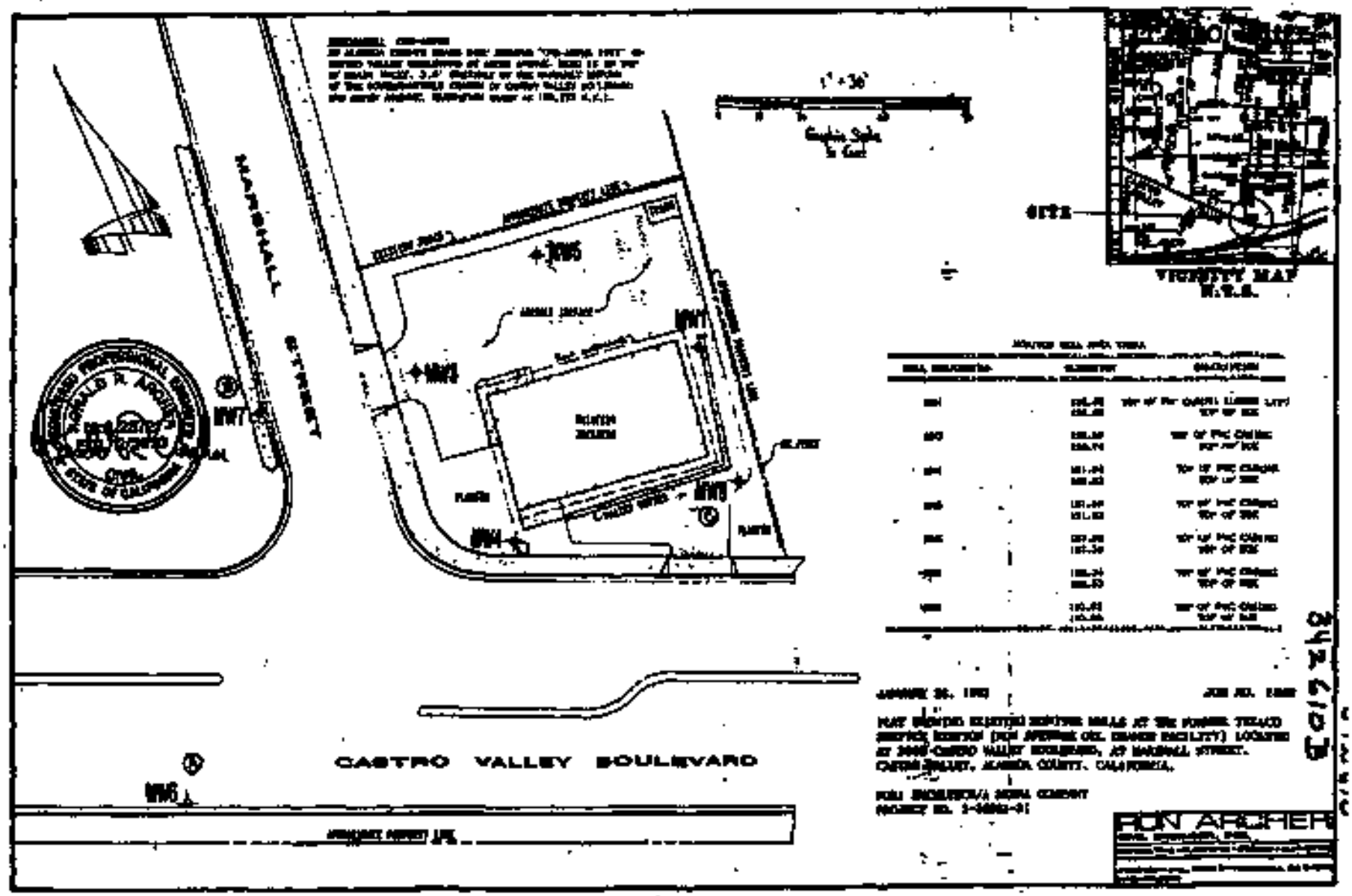

MARSHALL STREET
CASTRO VALLEY BOULEVARD
VICINITY MAP

342610B • 350 and 6A08

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station, 3940 Castro Valley Boulevard, Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-7

Date Drilled: 1/21/92

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
1				6" concrete, 8" base		
2			CL	SILTY CLAY, possible artificial fill, dark grayish brown (2.5Y 4/2), silt ~20%, sand ~20%, stiff, moist		
6	7-1	21	CL	CLAY, brownish yellow (10YR 5/4), sand ~30-40%, pockets of clayey sand, very stiff, damp		4.0
9			SC	CLAYEY SAND brownish yellow (10YR 5/4), clay ~30%, medium dense, moist		
11	7-2	15	ML	SILT, light yellowish brown (10YR 6/4) clay ~10%, sand ~15%, friable, rootholes, microlayers, medium stiff, moist		3.2
14				-increasing moisture, sand		
16	7-3	22	SM	SILTY SAND, yellowish brown (10YR 5/4), silt ~20-30%, fine-grained, trace coarse gravels, medium dense, damp		
21	7-4	23	CL/CH	CLAY, brown (10YR 5/3), silt ~15%, sand ~5-10%, medium to high plasticity, stiff, moist		4.0

REVIEWED BY R.G./C.E.G.

342610 B
03502W10A08

RESNA EXPLORATORY BORING LOG

Project Name: Former Texaco Service Station, 3940 Castro Valley Boulevard, Castro Valley, California

Project Number: 3-30091-31

Boring No. MW-7

Date Drilled: 1/21/92

Logged By: N. L. Nack

Depth (ft.)	Sample No.	Blows/Foot	Unified Soil Classification	SOIL DESCRIPTION	Water Level	OVM Reading (ppm)
				CLAY, continued		
22			CL	SILTY CLAY, yellowish brown (10YR 5/4), silt ~20-30%, very stiff, moist	▼	
25	7-5	28		-small perched zone		6.5
26			SP	SAND, yellowish brown (10YR 5/4) poorly graded, silt ~10%, medium dense, saturated, small perched zone		
27			CL	SILTY CLAY, yellowish brown (10YR 5/4), silt ~20-30%, moist, stiff		
28.5		15				
29			ML	SILT, yellowish brown (10YR 5/4), fractured, stiff, moist	▽	
31		36	SC	CLAYEY SAND, yellowish brown (10YR 5/4), clay ~10-20%, gravel ~5%, saturated, dense		2.8
34.5				-increasing sand and gravels, flowing		
35.5			GC	CLAYEY GRAVEL, brown to yellowish brown (10YR 4/3 to 10YR 5/8), clay ~20%, gravel subrounded, ≤ 2" diameter, dense, saturated		
37				-sample from drill bit		
40				Bottom of boring: 40 feet		
				Groundwater encountered: 30 feet		

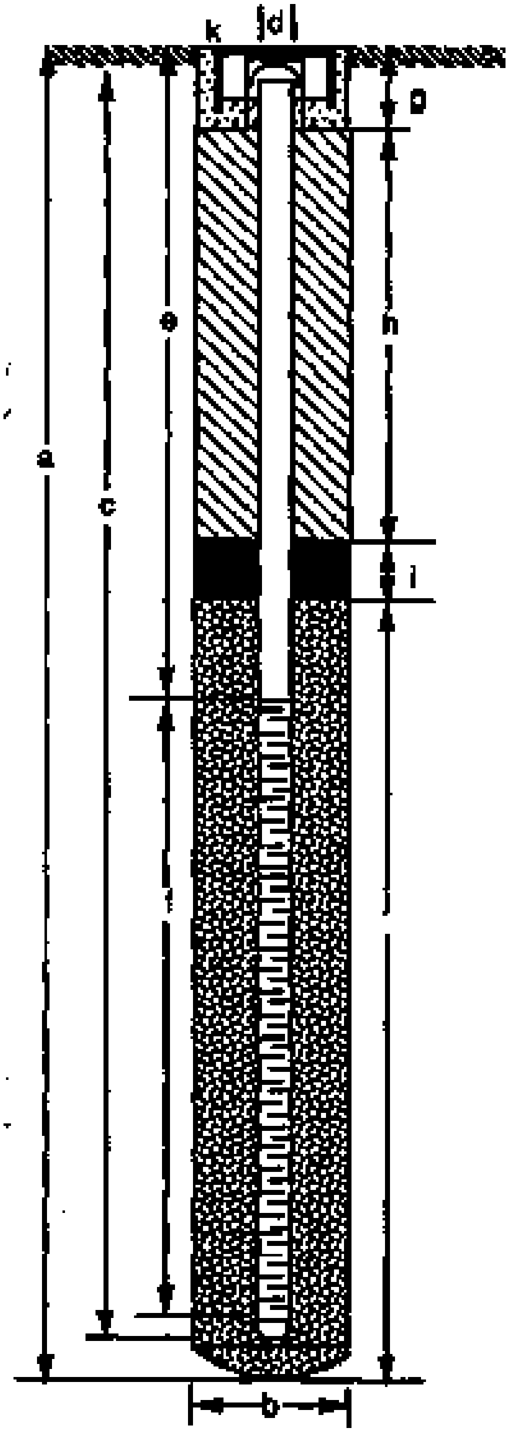
REVIEWED BY R.G./C.E.G.

RESNA

3426106 035 0a~ 6060

MONITORING WELL DETAIL

Project Number	3-30091-31	Boring/Well No.	MW-7
Project Name	Former Texaco Service Station	Top of Casing Elev.	189.34
County	3940 Castro Valley Boulevard	Ground Surface Elev.	189.53
Well Permit No.	91685	Datum	Mean Sea Level



EXPLORATORY BORING

a. Total depth 40 ft.

b. Diameter 12 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 38 ft.

Material Schedule 40 PVC

d. Diameter 4 in.

e. Depth to top perforations 28 ft.

f. Perforated length 10 ft.

Perforated interval from 38 to 28 ft.

Perforation type Slot

Perforation size 0.02 in.

g. Surface seal 2 ft.

Seal material Concrete

h. Backfill 23-1/2 ft.

Backfill material Neat Cement

i. Seal 1 ft.

Seal material Bentonite

j. Gravel pack 11.5 ft.

Pack material 2/12 sand

k. 12-inch diameter traffic-rated vault box, locking expansion cap

NOTE: Hole caved bottom two feet due to flowing sand.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

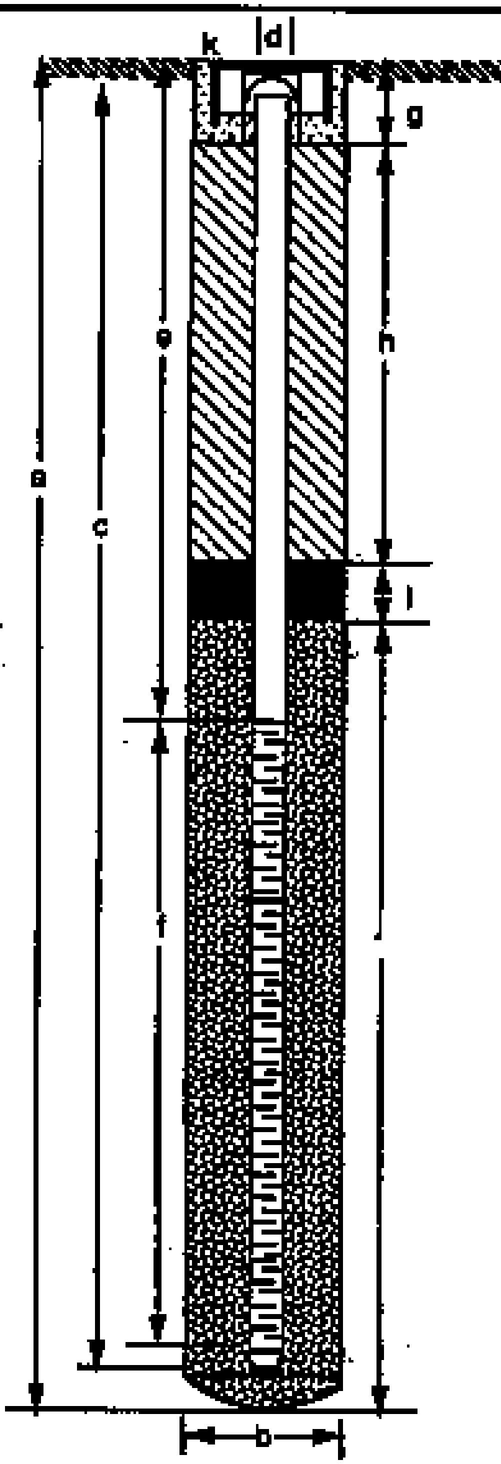
REMOVED

3436100 0350203 Sdhoj

RESNA

MONITORING WELL DETAIL

Project Number	3-30091-31	Boring/Well No.	MW-8
Project Name	Former Texaco Service Station	Top of Casing Elev.	193.62
County	Alameda	Ground Surface Elev.	193.85
Well Permit No.	91685	Datum	Mean Sea Level



EXPLORATORY BORING

a. Total depth 40 ft.

b. Diameter 12 in.

Drilling method Hollow Stem Auger

WELL CONSTRUCTION

c. Casing length 40 ft.

Material Schedule 40 PVC

d. Diameter 4 in.

e. Depth to top perforations 24-1/2 ft.

f. Perforated length 15 ft.

Perforated interval from 39-1/2 to 24-1/2 ft.

Perforation type Slot

Perforation size 0.02 in.

g. Surface seal 2 ft.

Seal material Concrete

h. Backfill 20.5 ft.

Backfill material Cement

i. Seal 1 ft.

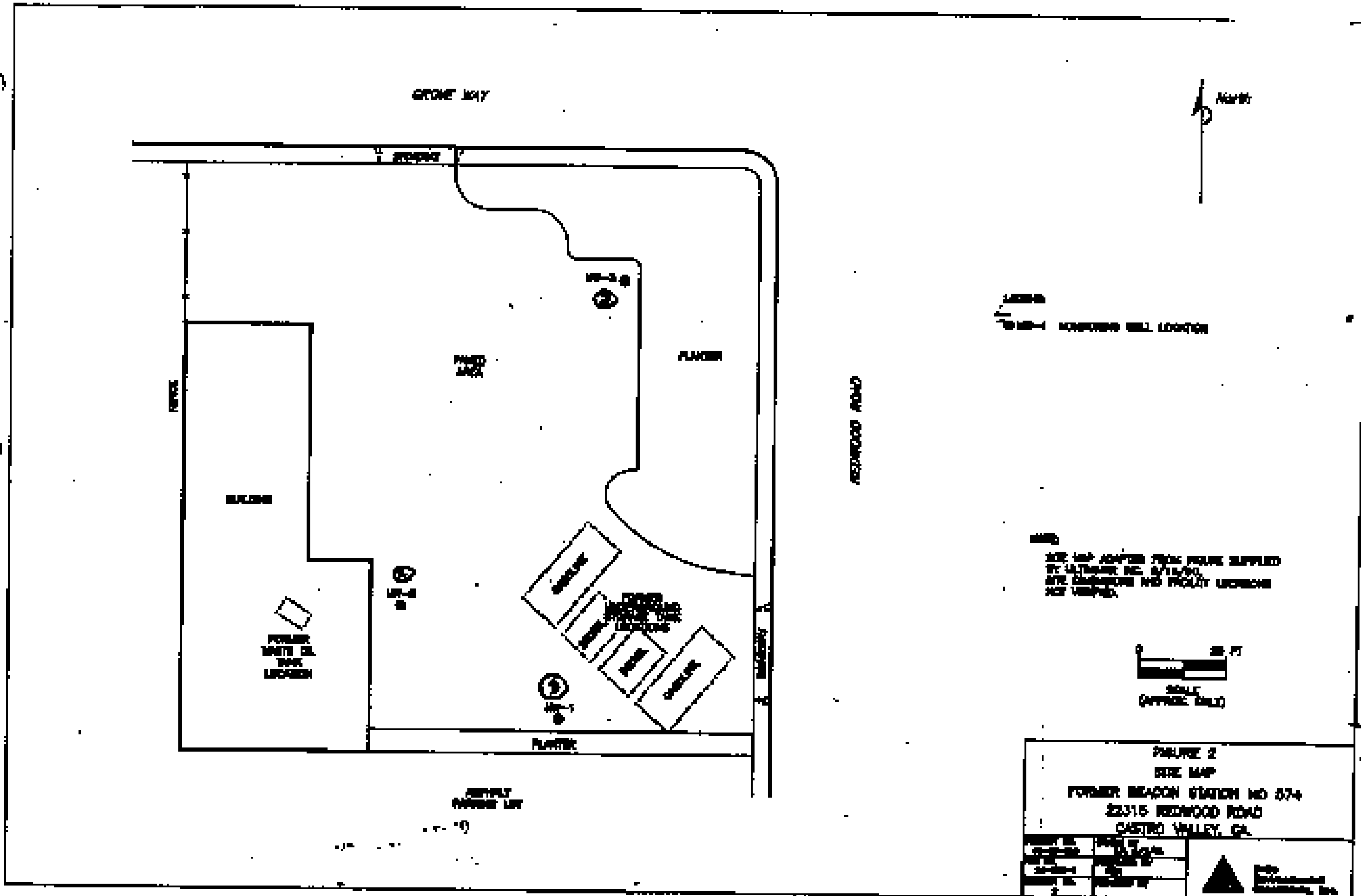
Seal material Bentonite

j. Gravel pack 16 ft.

Pack material 2/12 sand

k. 12-inch diameter traffic-rated vault box, locking expansion cap

NOTE: Hole caved 1/2-foot with flowing sands


GROVE WAY
North
SIDEWALK
PLANTER
REDWOOD ROAD
BUILDING
FORMER WASTE OIL TANK LOCATION
PLANTER
ASPHALT PARKING LOT
SCALE (APPROX. ONLY)
FIGURE 2
SITE MAP
FORMER BEACON STATION NO 574
22315 REDWOOD ROAD
CASTRO VALLEY, CA

01-4918
3S/2W 10L10

PROJECT NAME / LOCATION	PROJECT NUMBER: 40-90-818	BORING NUMBER: MW-1	SHEET 1 OF 2
Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	CONTRACTOR: West Hazmat Drilling		DRILLING METHOD: H.S.A.
	DRILLER: Gene Reinhart		DRILLING RIG: Acker
	START: 8:15/03-26-91		COMPLETED: 9:30/03-26-91
LAND OWNER: Paul Wilson	SURFACE ELEVATION: 156.55		LOGGED BY: Hal Ramsen

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INT (ft)	SAMPLE RECOV (in)	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MATERIALS AND CONDITIONS	CONTAMINANT OBSERVATION INSTRUMENT: hNu UNITS: ppm	GENERAL OBSERVATION NOTES
					1	ASPHALT AND ROADBASE		
					2	GRAVELLY SAND; olive, fine to coarse-grained, common plastic fines, moist (SP)		
					3			
					4			
CA	MW-1-1	15/30/50 for 5"	5.0-6.5	18"	5		0	
					6			
					7			
					8	SANDY CLAY; olive, moderately plastic, fine to coarse sand, some gravel, moist (CL)		
					9			
CA	MW-1-2	24/37/20	10.0-11.5	18"	10		0	
					11			
					12			
					13			
					14			
					15	CLAYEY SAND; olive-brown, fine to coarse sand, moist (SC)		
CA	MW-1-3	50 for 6"	15.0-16.5	7"	16		60	
					17			
					18			
					19			
					20			
CA	MW-1-4	30/50 for 5"	20.0-21.5	8"	21		180	
					22			
					23	SAND; olive-brown, fine-grained, saturated (SP)		

WATER LEVEL DATA			
DATE	03-26		
TIME	6:29		
GWL	22.43		
CASING DEPTH	30'		

GEOLOGIST

SIGNATURE

Hal Ramsen

TYPED NAME

C57 554079
(916) 638-2085
Permit 9116

phone: 916-638-2085

01-4918
3 S/2W 10L1D

PROJECT NAME / LOCATION	PROJECT NUMBER: 40-90-618	BORING NUMBER: MW-1	SHEET 2 OF 2
Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	CONTRACTOR: West Hazmat Drilling	DRILLING METHOD: H.S.A.	
	DRILLER: Gene Reinhart	DRILLING RIG: Acker	
	START: 8:15/03-26-91	COMPLETED: 9:30/03-26-91	
LAND OWNER: Paul Wilson	SURFACE ELEVATION: 156.55	LOGGED BY: Hal Hansen	

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INT (ft)	SAMPLE RECOV (in)	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MATERIALS AND CONDITIONS	CONTAMINANT OBSERVATION INSTRUMENT: HNU UNITS: ppm	GENERAL OBSERVATION NOTES
CA	MW-1-5	8/23/25	25.0-26.5	8"	25	SILTY SAND; olive-brown, fine-grained sand, saturated (SM)	8	
					26			
					27			
					28			
					29			
CA	MW-1-6	12/14/50 for 5"	30.0-31.5	7"	30		3	
					31			
					32	Total Depth 31.5 feet		
					33			
					34			
					35			
					36			
					37			
					38			
					39			
					40			
					41			
					42			
					43			
					44			
					45			
					46			
					47			

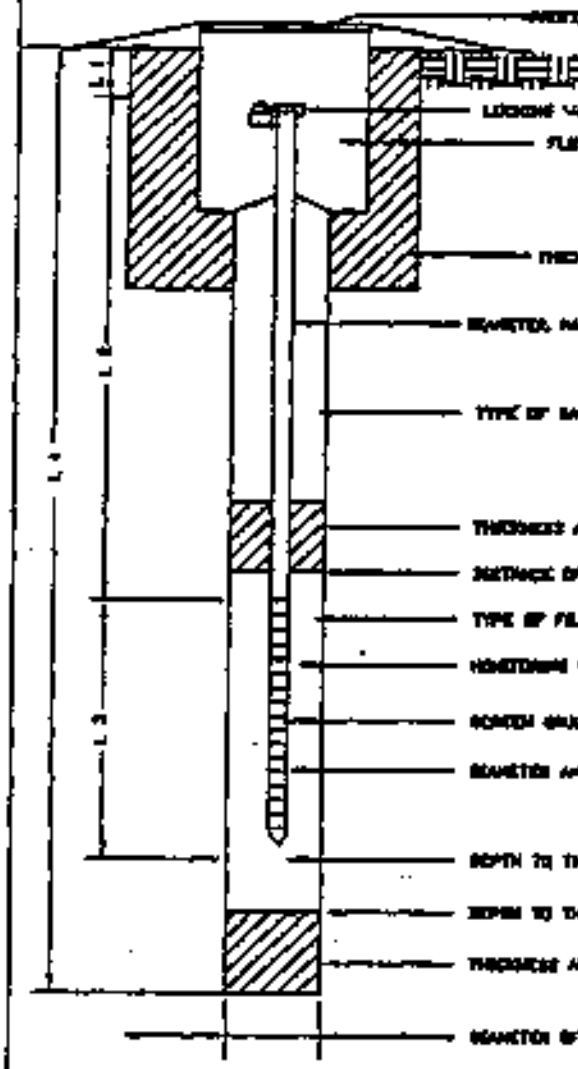
WATER LEVEL DATA				GEOLOGIST
DATE	03-26			
TIME	6:29			SIGNATURE
GWL	22.43			Hal Hansen
CASING DEPTH	30'			TYPED NAME

01-4988 3S/2W 10-10

INSTALLATION OF FLUSH GRADE MONITORING WELL

PROJECT: Former Beacon Station #574
22315 Redwood Road, Castro Valley, CA
DELTA NO. 40-90-818

MONITORING WELL NO. MW-1
ELEVATIONS: TOP OF RISER 156.55
GROUND LEVEL



DIAMETER AND MATERIAL	12-inch steel
TOTAL LENGTH	12 inches
LENGTH ABOVE GROUND	½ inch
THICKNESS AND TYPE OF SEAL	2-feet concrete
DIAMETER, MATERIAL AND LIGHT TYPE OF RISER PIPE	4-inch Sch 40 PVC Flush Thread
TYPE OF BACKFILL AROUND RISER	Neat cement containing 5% bentonite
THICKNESS AND TYPE OF SEAL	2-feet bentonite pellets
THICKNESS OF FILTER PACK ABOVE TOP OF SCREEN	2 feet
TYPE OF FILTER AROUND SCREEN	#3 lonestar
MONITORING WELL MATERIAL	Sch 40 PVC
SCREEN GAUGE OR SIZE OF OPENINGS (SLOT SIZE)	0.01 inch
DIAMETER AND LENGTH OF SCREEN	4 inch x 20 feet
DEPTH TO THE BOTTOM OF MONITORING WELL	30 feet
DEPTH TO THE BOTTOM OF FILTER PACK	30 feet
THICKNESS AND TYPE OF SEAL	N/A
DIAMETER OF BOREHOLE	10 inches

L1 = 0.25 FT.
L2 = 9.75 FT.
L3 = 20 FT.
L4 = 30 FT.

INSTALLATION COMPLETED:
DATE: 3/26/91
TIME: 10:30

MONITORING WELL WATER LEVEL MEASUREMENTS

DATE	TIME	WATER LEVEL *
3-26-91	6:29	22.43

* MEASURE FROM: Top of casing

Delta Environmental Consultants, Inc.

1022 8/3-89

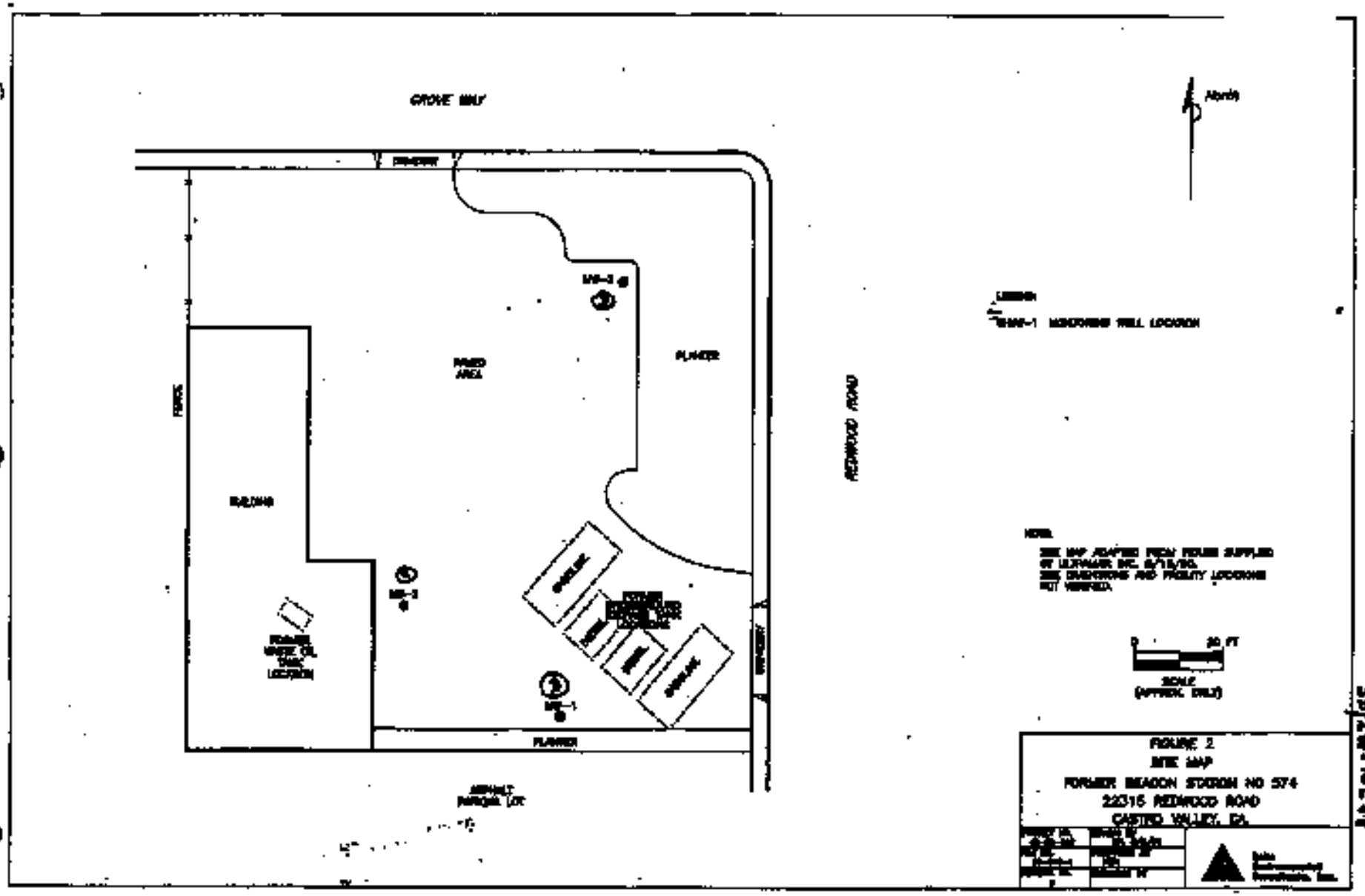


FIGURE 2
SITE MAP
FORMER BEACON STATION NO 574
22315 REDWOOD ROAD
CASTRO VALLEY, CA

01-498C
3 s/2 w 10-11

PROJECT NAME / LOCATION	PROJECT NUMBER: 40-90-618	BORING NUMBER: MW-2	SHEET 1 OF 2
Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	CONTRACTOR: West Hazmat Drilling		DRILLING METHOD: H.S.A.
	DRILLER: Gene Reinhart		DRILLING RIG: Acker
	START: 10:30/03-26-91		COMPLETED: 11:45/03-26-91
LAND OWNER: Paul Wilson	SURFACE ELEVATION: 155.17		LOGGED BY: Hal Hansen

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INT (ft)	SAMPLE RECOV (in)	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MATERIALS AND CONDITIONS	CONTAMINANT OBSERVATION INSTRUMENT: FID UNITS: ppm	GENERAL OBSERVATION NOTES
					1	ASPHALT AND ROADBASE		
					2	GRAVELLY SAND; olive, fine to coarse-grained, common plastic fines, moist (SP)		
					3			
					4			
CA	MW-2-1	20/30/50 for 5"	5.0-6.5	7"	5		15	
					6	SANDY CLAY; olive, moderately plastic, fine to coarse sand, some gravel, moist (CL)		
					7			
					8			
					9			
CA	MW-2-2	10/50 for 6"	10.0-11.5	12"	10		30	
					11			
					12			
					13			
					14			
CA	MW-2-3	30/50 for 5"	15.0-16.5	7"	15		90	
					16			
					17			
					18			
					19			
CA	MW-2-4	7/14/15	20.0-21.5	15"	20		90	
					21			
					22			
					23	SAND; olive-brown, fine-grained, saturated (SP)		

WATER LEVEL DATA				GEOLOGIST
DATE	03-26			
TIME	6:22			SIGNATURE
GWL	20.91			Hal Hansen
CASING DEPTH	30'			TYPED NAME

01-498C
3S/2W 10L11

PROJECT NAME / LOCATION	PROJECT NUMBER: 40-90-618	BORING NUMBER: MW-2	SHEET 2 OF 2
Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	CONTRACTOR: West Hazmat Drilling		DRILLING METHOD: H.S.A.
	DRILLER: Gene Reinhart		DRILLING RIG: Acker
	START: 10:30/03-26-91		COMPLETED: 11:45/03-26-91
LAND OWNER: Paul Wilson	SURFACE ELEVATION: 155.17		LOGGED BY: Hal Hansen

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INT(ft)	SAMPLE RECOV(in)	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MATERIALS AND CONDITIONS	CONTAMINANT OBSERVATION INSTRUMENT: HNu UNITS: ppm	GENERAL OBSERVATION NOTES
CA	MW-2-5	15/16/18	25.0-26.5	16"	25	SILTY SAND: olive-brown, fine-grained sand, saturated (SM)	3	
CA	MW-2-6	14/22/43	30.0-31.5	14"	30		0	
					32	Total Depth 31.5 feet		

WATER LEVEL DATA			
DATE	03-26		
TIME	6:22		
GWL	20.91		
CASING DEPTH	30'		

GEOLOGIST

SIGNATURE
Hal Hansen

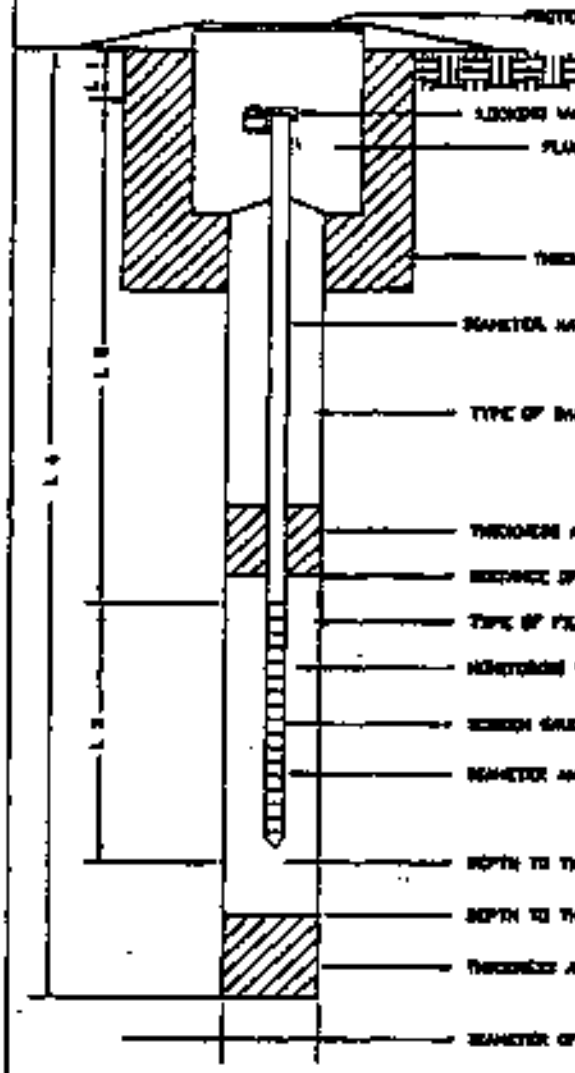
TYPED NAME

01-498C 33/4W 10L11

INSTALLATION OF FLUSH GRADE MONITORING WELL

PROJECT: Former Beacon Station #574
22315 Redwood Road, Castro Valley, CA
DELTA NO. 40-90-818

MONITORING WELL NO. MW-2
ELEVATIONS: TOP OF RISER 155.17
GROUND LEVEL



DIAMETER AND MATERIAL	12-inch steel
TOTAL LENGTH	12 inches
LENGTH ABOVE GRADE	½ inch
THICKNESS AND TYPE OF SEAL	2-feet concrete
DIAMETER, MATERIAL AND JOINT TYPE OF RISER PIPE	4-inch Sch 40 PVC Flush Thread
TYPE OF BACKFILL AROUND RISER	Neat cement containing 5% bentonite
THICKNESS AND TYPE OF SEAL	2-feet bentonite pellets
DISTANCE OF FILTER SAND ABOVE TOP OF SCREEN	2 feet
TYPE OF FILTER AROUND SCREEN	#3 lonestar
MONITORING WELL MATERIAL	Sch 40 PVC
SCREEN GAUGE OR SIZE OF OPENINGS (SLOT SIZE)	0.01 inch
DIAMETER AND LENGTH OF SCREEN	4 inch x 20 feet
DEPTH TO THE BOTTOM OF MONITORING WELL	30 feet
DEPTH TO THE BOTTOM OF FILTER SAND	30 feet
THICKNESS AND TYPE OF SEAL	N/A
DIAMETER OF BOREHOLE	10 inches

L1 = 0.25 FT.
L2 = 9.75 FT.
L3 = 20 FT.
L4 = 30 FT.

INSTALLATION COMPLETED
DATE: 3/26/91
TIME: 12:45

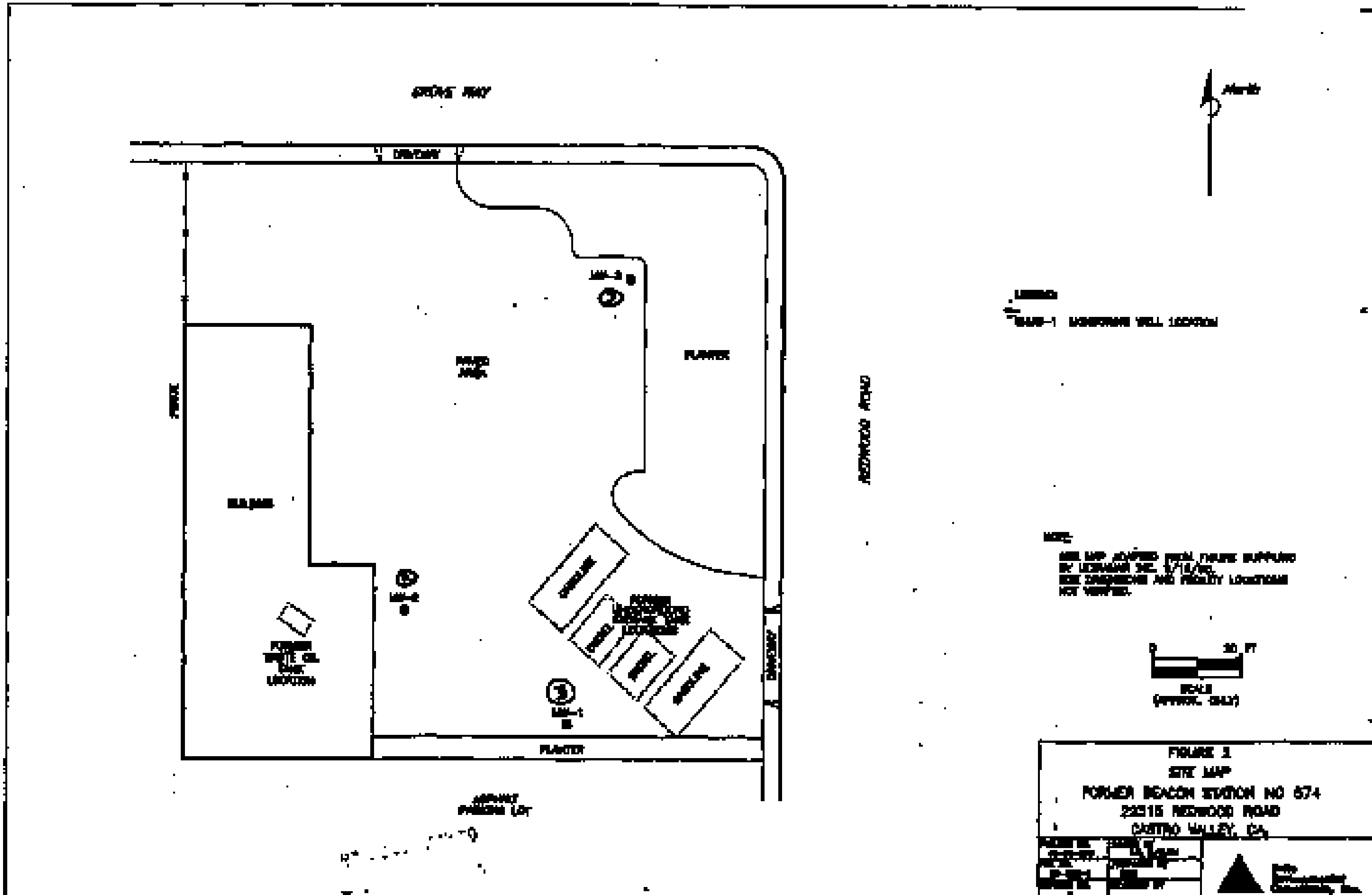
MONITORING WELL WATER LEVEL MEASUREMENTS

DATE	TIME	WATER LEVEL *
3-26-91	6:22	20.91

* MEASURE FROM: Top of casing

Delta Environmental Consultants, Inc.

1022 9/3-89



GROVE WAY
DRIVEWAY
PAVED AREA
PLANTER
REDWOOD ROAD
BUILDING
FENCE
FORMER WASTE OIL TANK LOCATION
MW-1
MW-2
MW-3
ASPHALT PARKING LOT
North
LEGEND
NOTE:
SCALE (APPROX. ONLY)
FIGURE 1
SITE MAP
FORMER BEACON STATION NO 674
22515 REDWOOD ROAD
CASTRO VALLEY, CA

01-498D 3/2w 10-12

PROJECT NAME / LOCATION	PROJECT NUMBER: 40-90-918	BORING NUMBER: MW-3	SHEET 1 OF 2
Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	CONTRACTOR: West Hazmat Drilling		DRILLING METHOD: H.S.A.
	DRILLER: Gene Reinhart		DRILLING RIG: Acker
	START: 1:40/03-26-91		COMPLETED: 3:00/03-26-91
LAND OWNER: Paul Wilson	SURFACE ELEVATION: 157.13		LOGGED BY: Hal Hansen

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INT (ft)	SAMPLE RECOVERY (in)	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MATERIALS AND CONDITIONS	CONTAMINANT OBSERVATION INSTRUMENT: FID UNITS: ppm	GENERAL OBSERVATION NOTES
					1	ASPHALT AND ROADBASE		
					2	SAND; brown, fine-grained, well sorted moist (SP)		
					3			
					4			
CA	MW-3-1	15/26/37	5.0-6.5	18"	5		0	
					6			
					7			
					8	CLAY; dark gray, lightly plastic, moist (CL)		
					9			
CA	MW-3-2	16/18/32	10.0-11.5	7"	10		0	
					11			
					12			
					13	SANDY CLAY; olive-brown, moderately plastic, moist (CL)		
					14			
CA	MW-3-3	23/50 for 5"	15.0-16.5	8"	15		1	
					16			
					17			
					18			
					19			
CA	MW-3-4	50 for 6"	20.0-21.5	7"	20	SILTY CLAY; olive, moderately plastic, very moist (CL)	8	
					21			
					22			
					23			

WATER LEVEL DATA			
DATE	03-26		
TIME	6:14		
GWL	21.62		
CASING DEPTH	30'		

GEOLOGIST

SIGNATURE

Hal Hansen

TYPED NAME

OL498D 85/2W 10L12

PROJECT NAME / LOCATION	PROJECT NUMBER: 40-90-818	BORING NUMBER: MW-3	SHEET 2 OF 2
Former Beacon Station #574 22315 Redwood Road Castro Valley, CA	CONTRACTOR: West Hazmat Drilling	DRILLING METHOD: H.S.A.	
	DRILLER: Gene Reinhart	DRILLING RIG: Acker	
	START: 1:40/03-26-91	COMPLETED: 3:00/03-26-91	
LAND OWNER: Paul Wilson	SURFACE ELEVATION: 157.13	LOGGED BY: Hal Hansen	

SAMPLE TYPE	SAMPLE NUMBER	BLOW COUNTS	SAMPLE INT(ft)	SAMPLE RECOV(in)	DEPTH SCALE 1"= 4'	DESCRIPTIONS OF MATERIALS AND CONDITIONS	CONTAMINANT OBSERVATION INSTRUMENT: PID UNITS: ppm	GENERAL OBSERVATION NOTES
CA	MW-3-5	13/50 for 6"	25.0-26.5	8"	25	CLAYEY SAND; olive-brown, medium-grained sand, saturated (SC)	60	
					26			
					27			
					28			
					29			
CA	MW-3-6	14/50 for 6"	30.0-31.5	8"	30		0	
					31			
					32	Total Depth 31.5 feet		
					33			
					34			
					35			
					36			
					37			
					38			
					39			
					40			
					41			
					42			
					43			
					44			
					45			
					46			
					47			

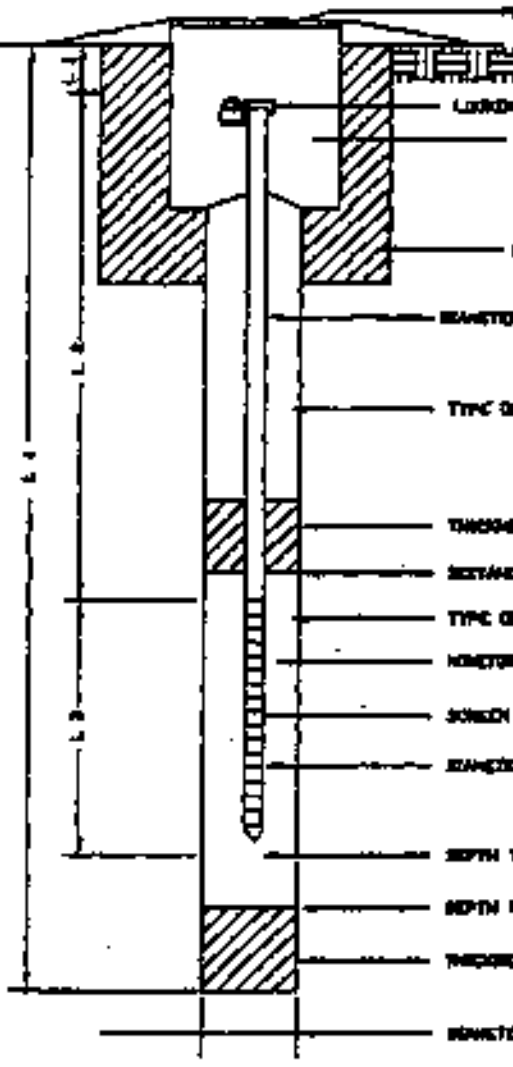
WATER LEVEL DATA				GEOLOGIST
DATE	03-26			
TIME	6:14			SIGNATURE Hal Hansen
GWL	21.62			
CASING DEPTH	30'			TYPED NAME

01-4780 3S/2W 10 C12

INSTALLATION OF FLUSH GRADE MONITORING WELL

PROJECT: Former Beacon Station #574
22315 Redwood Road, Castro Valley, CA
DELTA NO. 40-90-818

MONITORING WELL NO. MW-3
ELEVATIONS: TOP OF RISER 157.13
GROUND LEVEL



	12-inch steel
	12 inches
	4 inch
	2-feet concrete
	4-inch Sch 40 PVC
	Flush Thread
	Neat cement containing 5% bentonite
	2 feet bentonite pellets
	2 feet
	#3 Lonestar
	Sch 40 PVC
	0.01 inch
	4 inch x 20 feet
	30 feet
	30 feet
	N/A
	10 inches

L1 = 0.25 FT.
L2 = 9.75 FT.
L3 = 20 FT.
L4 = 30 FT.

INSTALLATION COMPLETED
DATE: 3/26/91
TIME: 4:30

MONITORING WELL WATER LEVEL MEASUREMENTS

DATE	TIME	WATER LEVEL *
3-26-91	6:16	21.67

* MEASURE FROM: Top of casing

Delta Environmental Consultants, Inc.

1022 8/3-89

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

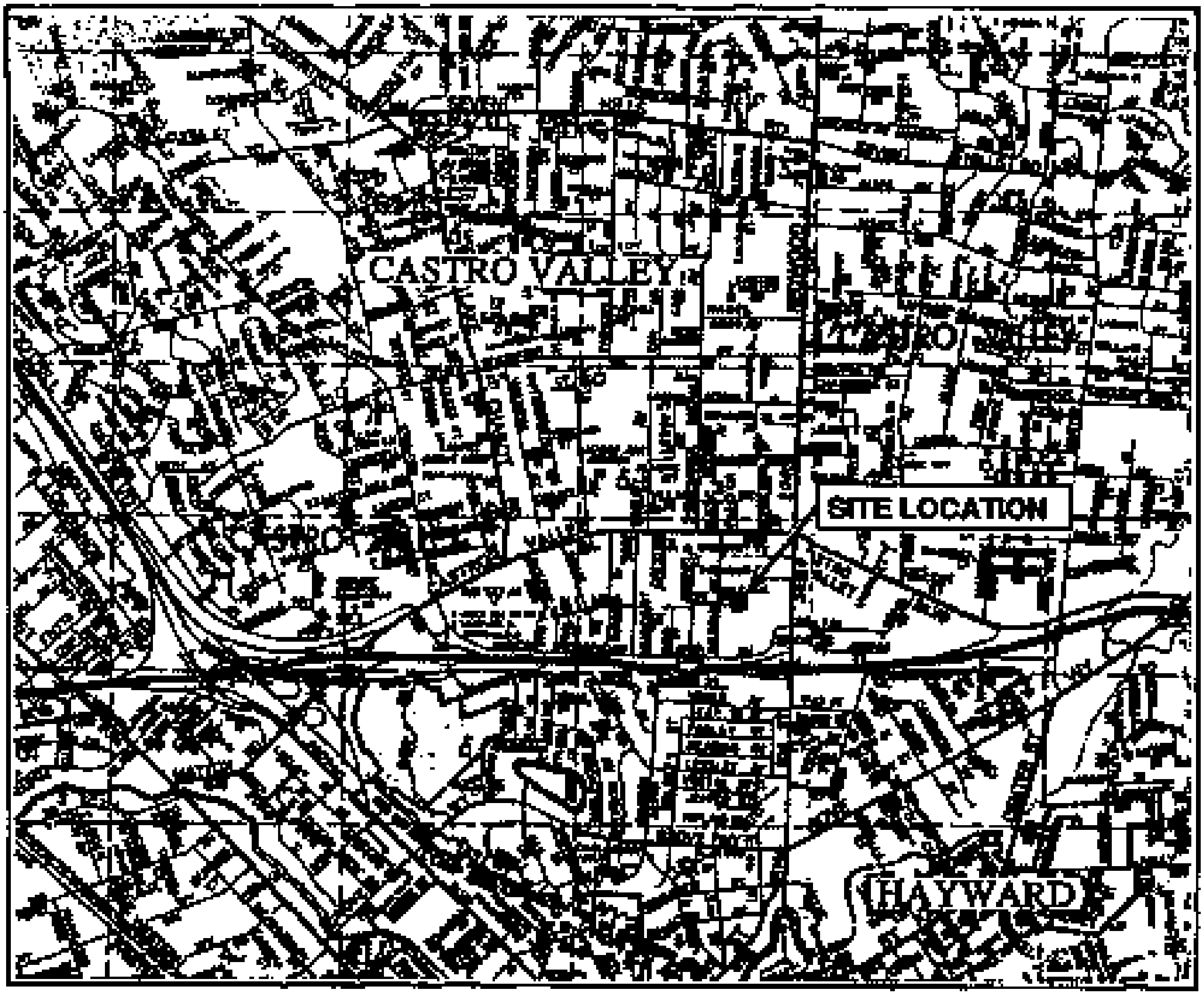
REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

407680A   3S/2W/10C1



NOTE:
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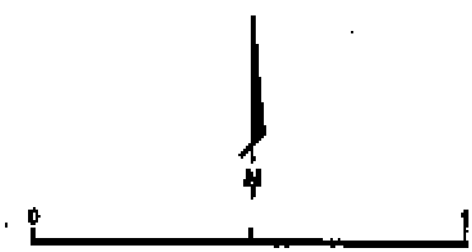


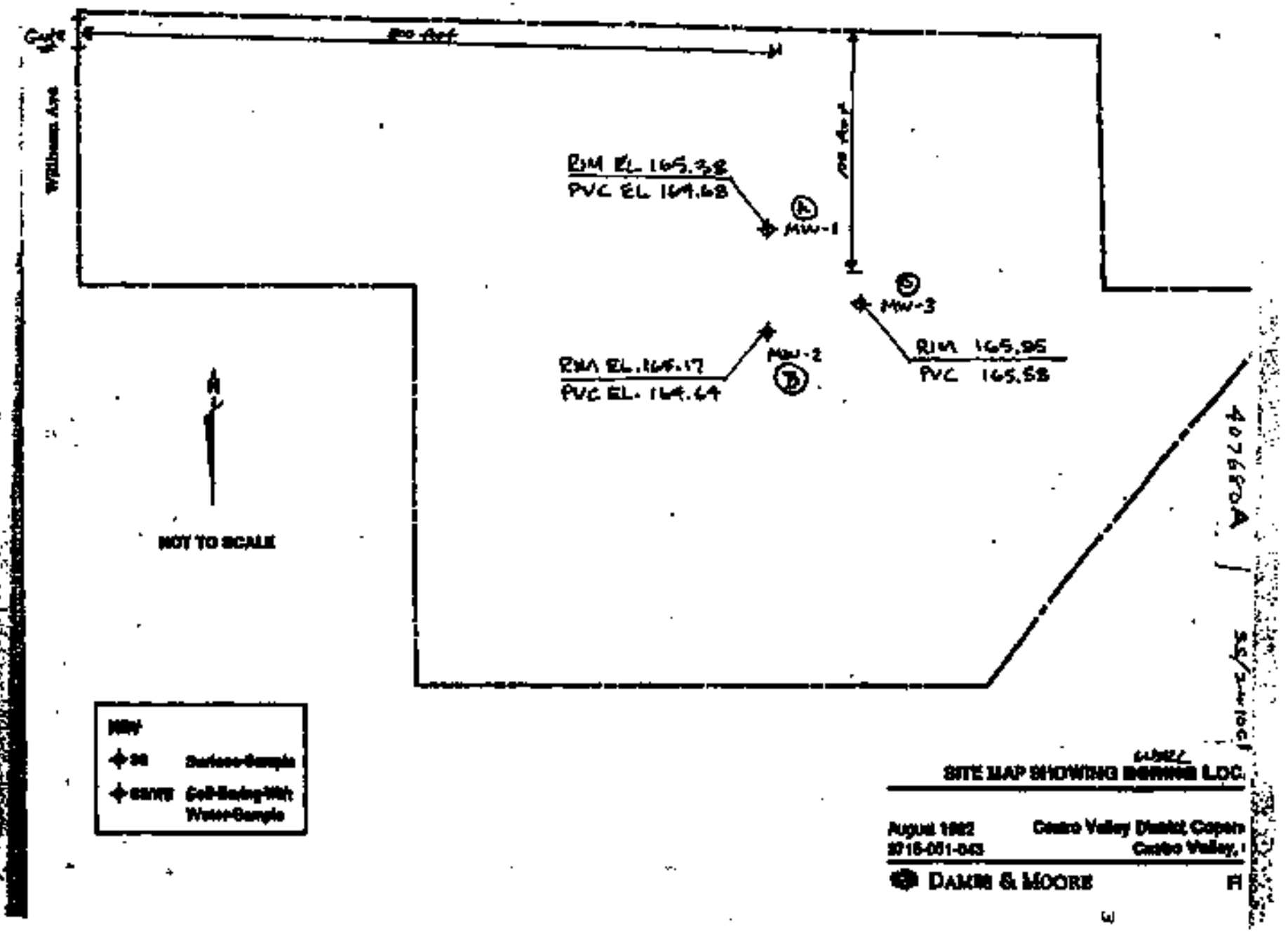
LOCATION MAP

February 1993
03715-061-048

BART
Castro Valley District Corporation Yard
Castro Valley, California

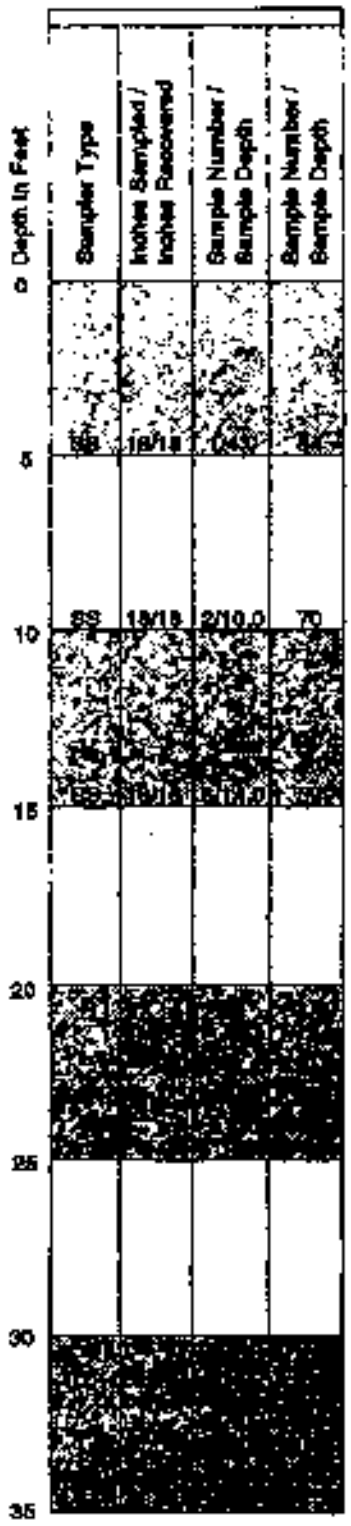
DAMES & MOORE

FIGURE 1

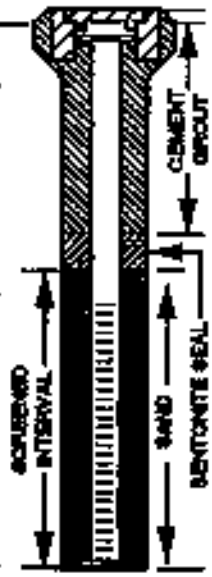

Gate
Williams Ave
RIM EL. 165.38
PVC EL. 164.68
MW-1
MW-3
RIM 165.95
PVC 165.58
RIM EL. 165.17
PVC EL. 164.64
MW-2
NOT TO SCALE
MW
Surface Sample
Soil Boring With Water Sample
SITE MAP SHOWING BORING LOC.
August 1982
Castro Valley District Capon
Castro Valley,
DAMES & MOORE

407680A 03S02W10C01

MW-1



Symbols	Description
SM / CL	BROWN GRAVELLY SILTY SAND with clay (wet) (loose) (FILL)
CL	GREY SILTY CLAY (moist) (hard)
SC	GRAY CLAYEY SAND with silt, brownish yellow mottling. Fine to coarse subrounded to subangular sand (moist) (very dense)
CL	DARK BROWN CLAY with dark gray mottling (moist) (hard)



Boring completed to a depth of 15.5 feet

NOTES

1. Boring completed at a depth of 15.5 feet on 2/15/93.
2. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
3. For an explanation of terms used see the Soil Classification Chart and Key to Sampling, Plate —.

6715-001-049/11-93

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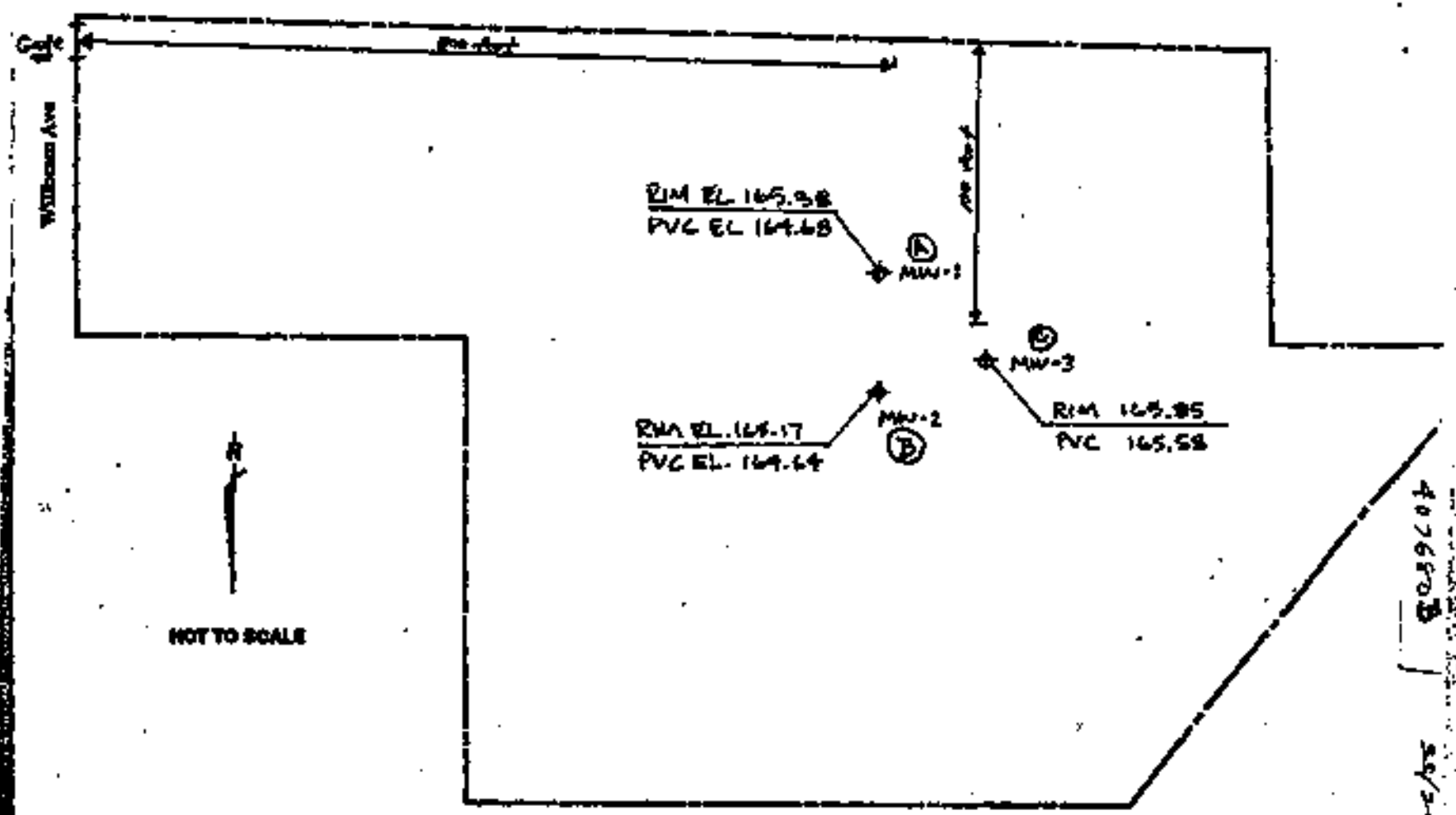
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



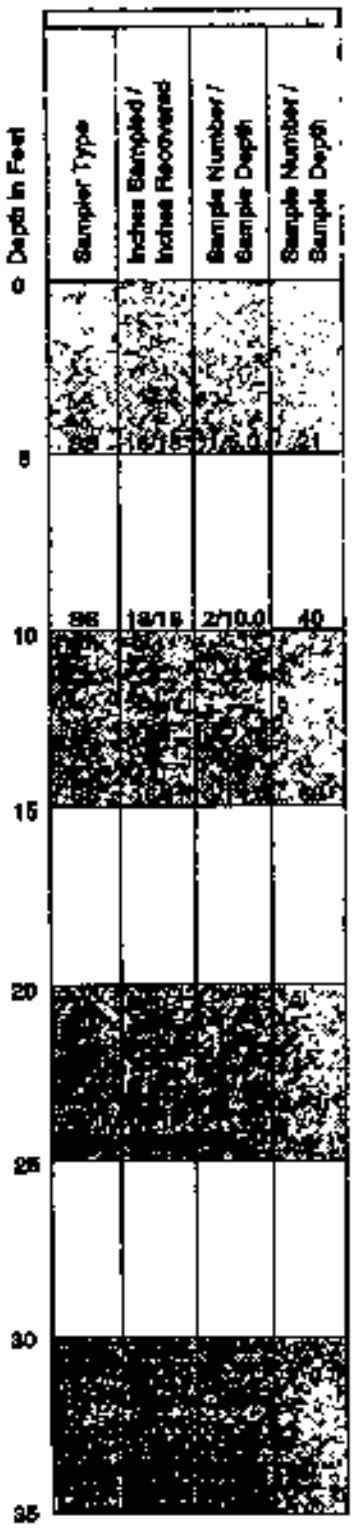
SITE MAP SHOWING BORING LOC

August 1992 — Castro Valley District Gasoline — Castro Valley, CA

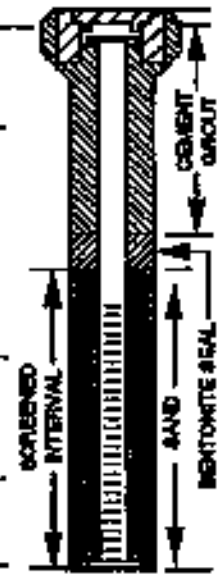
DAMES & MOORE

407680B 08502W10C02

MW-2



Symbols	Description
SM	BROWN GRAVELLY SILTY SAND with clay (wet) (loose) [FILL]
CL	DARK GRAY CLAY, trace silt (moist) (very stiff)
SC	Grades to olive grey silty clay @ 9.0 ft.
	OLIVE GREY SILTY CLAYEY SAND, fine grained, brownish yellow mottling (moist) (dense)
	Coarsening sand @ 19.0 ft.
CL	OLIVE GRAY CLAY with dark gray mottling, trace silt (moist) (hard)



Boring completed to a depth of 15.5 feet

NOTES

1. Boring completed at a depth of 15.5 feet on 2/16/93.
2. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
3. For an explanation of terms used see the Soil Classification Chart and Key to Sampling, Plate —.

EP15-061-043/11-93

DAMES & MOORE

PLATE —

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STATE OF CALIFORNIA DWR
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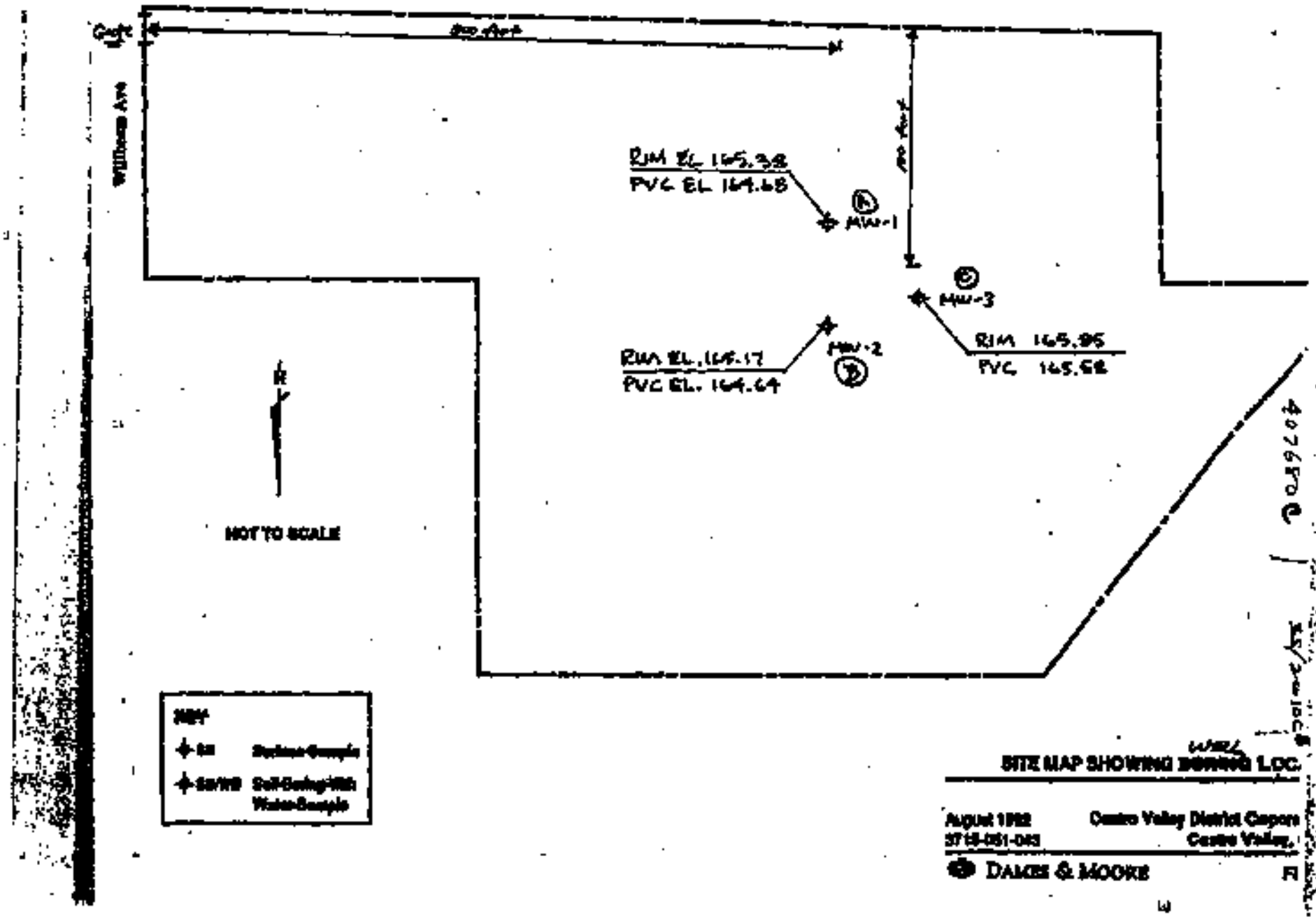
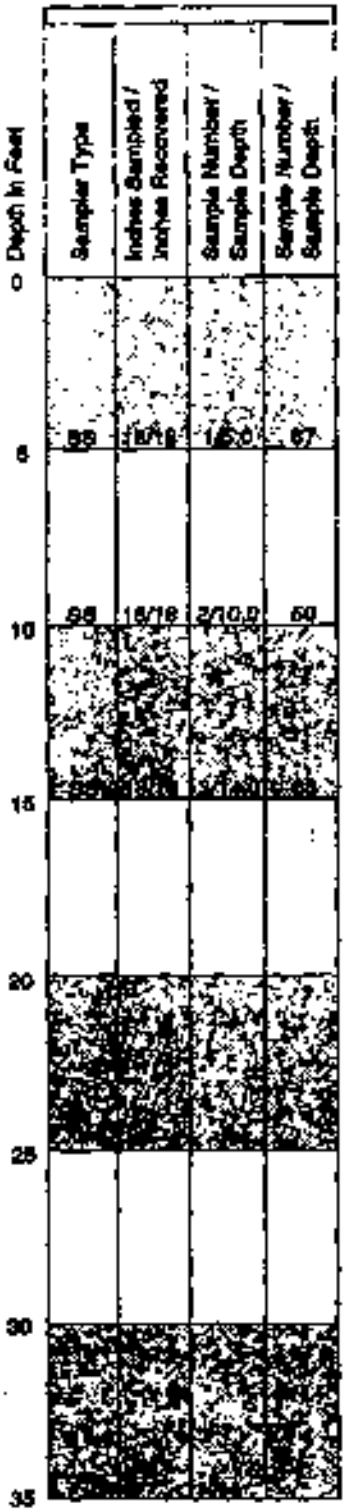
(WELL LOGS)

REMOVED

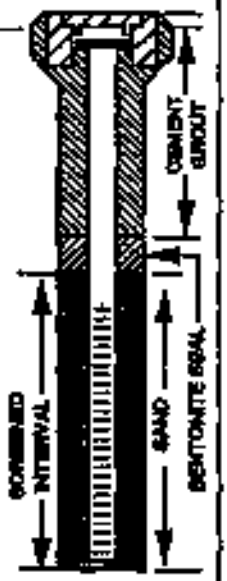

Gate
William Ave
RIM EL 165.38
PVC EL 164.68
MW-1
MW-3
RIM 165.95
PVC 165.68
RIM EL. 165.17
PVC EL. 164.64
MW-2
NOT TO SCALE
KEY
SITE MAP SHOWING
August 1988
Centre Valley District Depot
Centre Valley,
DAMES & MOORE

4076EOC 03502W10C03

MW-3



Symbols	Description
SM	BROWN GRAVELLY SILTY SAND with clay, (wet) (loose) [FILL]
CL	DARK GRAY CLAY (moist) (hard)
SM	OLIVE GRAY SILTY SAND with clay, fine to very fine grained. Some brownish yellow mottling (very dense)
CL	OLIVE GRAY CLAY with dark gray mottling (moist) (hard)



Boring completed to a depth of 15.5 feet

NOTES

1. Boring completed at a depth of 15.5 feet on 2/15/95.
2. Boring log indicates interpreted subsurface conditions only at the location and the time the boring was drilled.
3. For an explanation of terms used see the Soil Classification Chart and Key to Sampling, Plate —.

3715-001-046/11-93

DAMES & MOORE

PLATE —

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

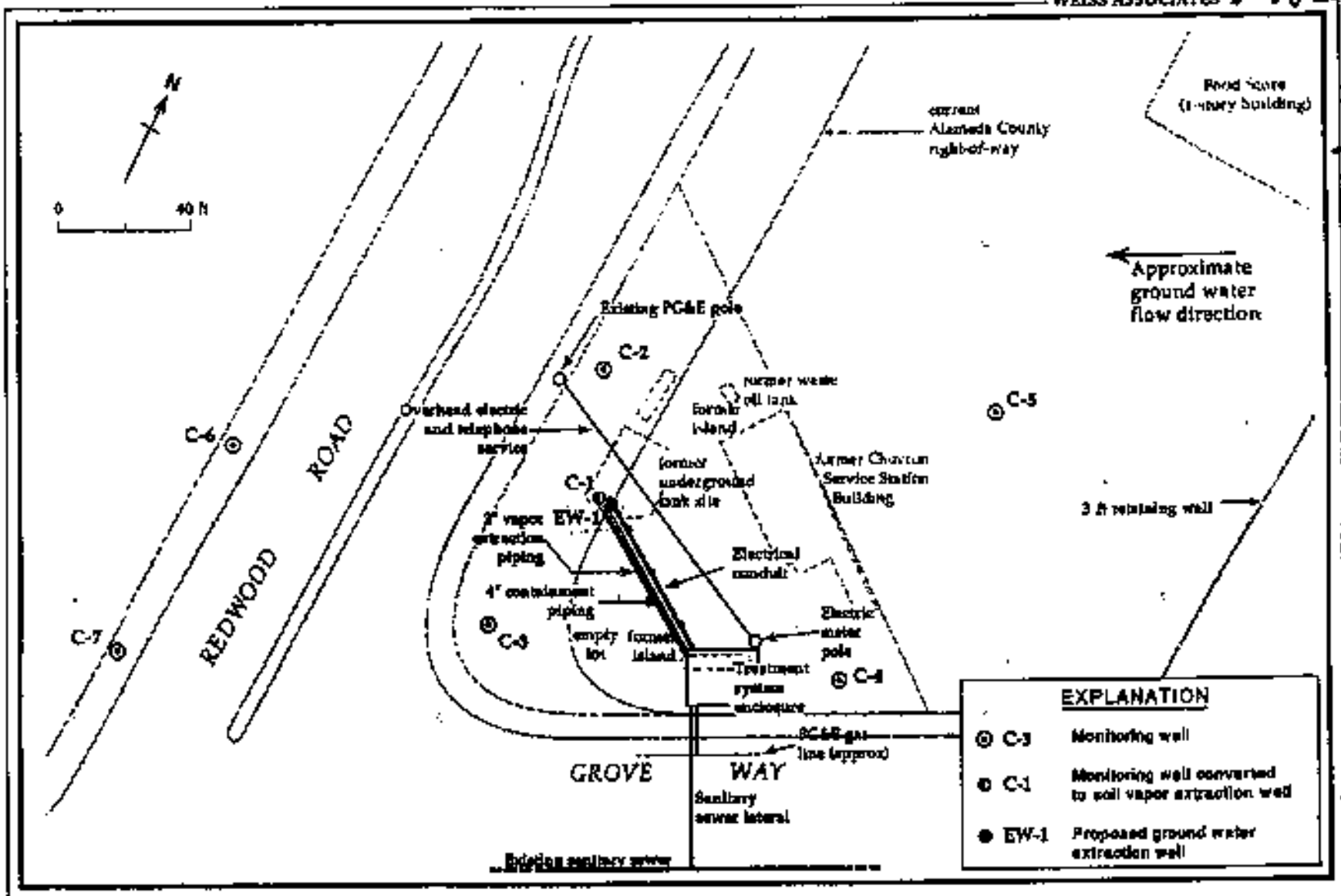


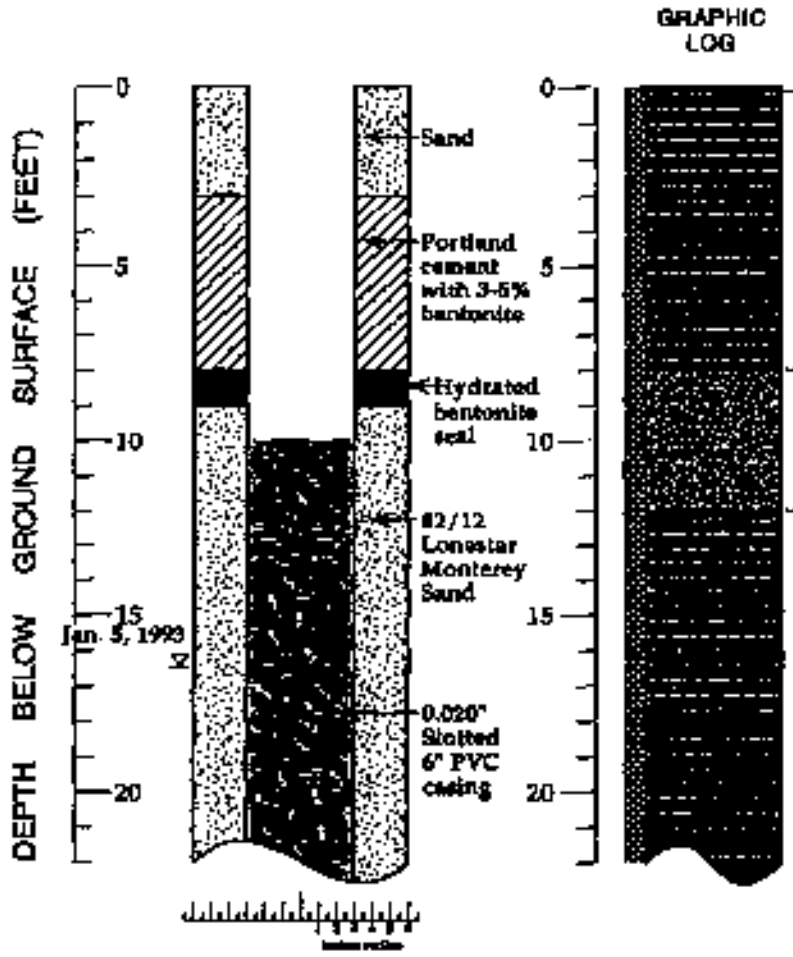
Figure 2. Proposed Remediation System Layout - Former Chevron Service Station #9-2960, 2416 Grove Way, Castro Valley, California

SS/LW MH 2

P S 94 421877

WEISS ASSOCIATES

GROUND WATER EXTRACTION WELL EW-1



EXPLANATION

- Water level during drilling (date)
- Water level (date)
- Contact (dotted where approximate)
- Uncertain contact
- Gradational contact
- Location of recovered drive sample
- Location of drive sample sealed for chemical analysis
- Cutting sample
- K = Estimated hydraulic conductivity

Logged By: Tom Pojut
Supervisor: Tom Barry
Drilling Company: Bayland Drilling, Menlo Park, CA
License Number: C57-574152
Driller: Adam Hurjardo
Drilling Method: Hollow-stem auger
Date Drilled: January 5, 1993
Well Head Completion: 6" locking well-ring, traffic-rated vault
Ground Surface Elevation: feet above mean sea level

Boring Log and Well Construction Details - Ground Water Extraction Well EW-1 - Former Chevron Service Station #9-2960, 2146 Grove Way, Castro Valley, California

5

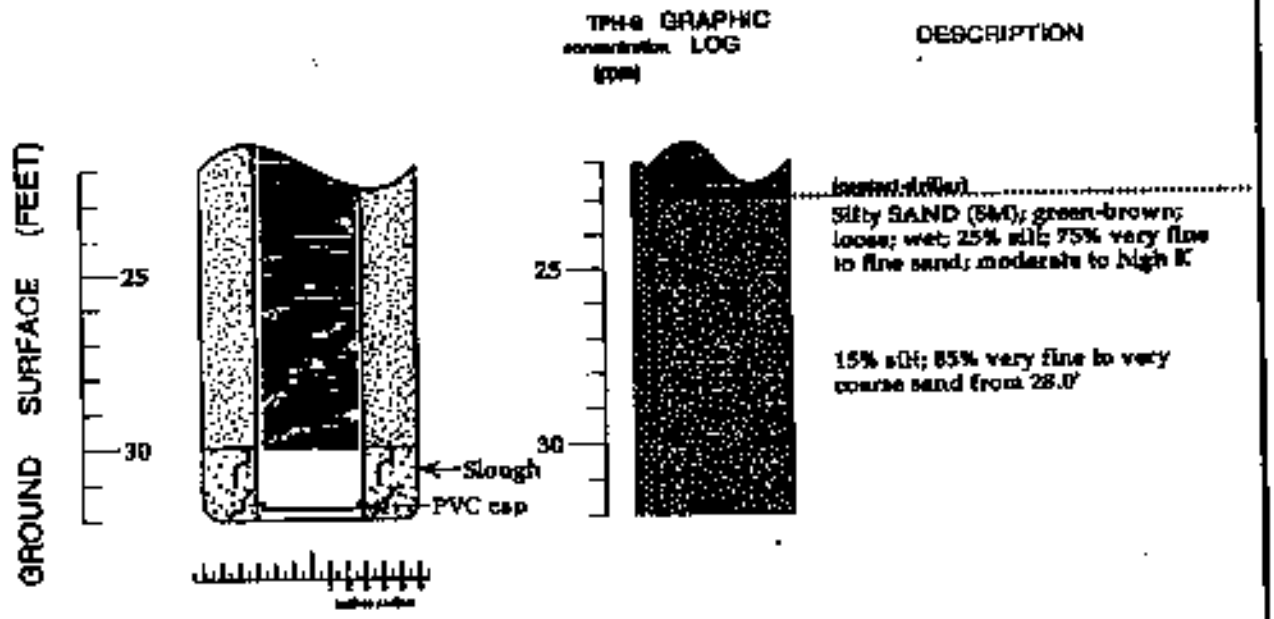
35/2W 10N 2

P. 4 of 4

421877

WEISS ASSOCIATES

GROUND WATER EXTRACTION WELL EW-1 (cont.)



Boring Log and Well Construction Details - Ground Water Extraction Well EW-1 - Former Chevron Service Station #9-2960, 2146 Grove Way, Castro Valley, California

1/24/90

Appendix C

Well Search Results (Alameda County Public Works Agency)

Tr	Section	Address	Owner	Update	Xcoord	Ycoord	Tsrqq	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use
3S/2W	10L	#2 Corporation Yard	Alameda Public Works	6/22/1993	122073359	37682592	3S/2W 10L	6/92	0	16	0	2	BOR
3S/2W	10P 2	?	E. KOOS	8/3/1984	122073861	37680376	3S/2W 10P	?	0	73	0	0	IRR
3S/2W	10M 3	1768 Knox St	John Higginbotham	12/4/1997	122076124	37682616	3S/2W 10M	1/94	0	50	22	5	DOM
3S/2W	10L 6	1783 KNOX STREET	NANCY C. CARTER		122075948	37682447	3S/2W 10L	Oct-88	0	0	0	60	DES
3S/2W	10N 1	1792 Crescent Ave	Plymouth Group	6/22/1990	122074470	37681839	3S/2W 10N	2/90	0	0	0	0	DES
3S/2W	3B 1	19861 FOREST AVE	RONALD SILVA	8/2/1984	122069571	37705267	3S/2W 3B	8/77	0	50	20	6	IRR
3S/2W	3K 3	19910 FOREST AVE	JACK LUSE	8/2/1984	122069571	37698477	3S/2W 3K	8/77	0	56	38	8	IRR
3S/2W	3K 4	19945 FOREST	MR. WEHE	8/2/1984	122069571	37698477	3S/2W 3K	3/78	0	51	15	8	DES
3S/2W	3F 2	20115 FOREST AVE	MARTINS NURSERY	8/2/1984	122074016	37701947	3S/2W 3F	Nov-85	0	31	5	2	MON
3S/2W	3K 1	20115 FOREST AVE	MARTIN NURSERY	8/2/1984	122069571	37698477	3S/2W 3K	8/53	201	116	28	10	IRR
3S/2W	3Q 3	20283 YEANDLE AVE	ROBERT ROUSEY	8/2/1984	122069947	37697191	3S/2W 3Q	5/77	0	28	18	6	IRR
3S/2W	3R 1	20287 MARSHAL ST	MR. ORNELAS	8/2/1984	122065101	37694970	3S/2W 3R	Dec-77	0	61	21	6	IRR
3S/2W	3P	20405 Redwood Rd	Robert T. Nahus	8/1/1991	122072869	37697321	3S/2W 3P	5/91	29	0	28	8	BOR*
3S/2W	3P	20405 Redwood Road	R. T. Nahas Company	7/9/1990	122072869	37697321	3S/2W 3P	Dec-89	0	0	12	8	BOR
3S/2W	3P 4	20405 Redwood Road	R. T. Nahas Company	7/9/1990	122072869	37697321	3S/2W 3P	Dec-89	0	30	12	2	MON
3S/2W	3P 5	20405 Redwood Road	R. T. Nahas Company	7/9/1990	122072869	37697321	3S/2W 3P	Dec-89	0	30	12	2	MON
3S/2W	3P 6	20405 Redwood Road	R. T. Nahas Company	7/9/1990	122072869	37697321	3S/2W 3P	Dec-89	0	25	12	2	MON
3S/2W	3C 1	20450 REDWOOD RD	EXXON OIL	8/2/1984	122074016	37705262	3S/2W 3C	8/77	0	50	0	0	?
3S/2W	3Q 5	20551 FOREST AV	HOWARD W. BURKHART	1/18/1985	122067900	37695833	3S/2W 3Q	2/50	0	57	0	8	?
3S/2W	3P 7	20629 Redwood Rd	R. T. Nahas Co. MW-5	9/21/1992	122072914	37696287	3S/2W 3P	3/92	195	37	23	2	MON
3S/2W	3P 8	20629 Redwood Rd	R. T. Nahas Co. MW-6	9/21/1992	122072914	37696287	3S/2W 3P	4/92	188	29	16	2	MON
3S/2W	3P 9	20629 Redwood Rd	R. T. Nahas Co. MW-7	9/21/1992	122072914	37696287	3S/2W 3P	4/92	187	31	15	2	MON
3S/2W	3Q 4	20680 FOREST AV	G.G. PAUL KASMER	1/18/1985	122067700	37694368	3S/2W 3Q	Oct-73	0	20	0	0	DES
3S/2W	10C 1	21000 Wilbeam Ave.	BART MW-1	7/15/1993	122075868	37692904	3S/2W 10C	2/93	0	16	14	2	MON
3S/2W	10C 2	21000 Wilbeam Ave.	BART MW-2	7/15/1993	122075868	37692904	3S/2W 10C	2/93	0	16	14	2	MON
3S/2W	10C 3	21000 Wilbeam Ave.	BART MW-3	7/15/1993	122075868	37692904	3S/2W 10C	2/93	0	16	14	2	MON
3S/2W	10A	21195 Center Street	Office of State Architect	6/8/1990	122061474	37693742	3S/2W 10A	1/90	0	0	0	6	BOR*
3S/2W	10A	21195 Center Street	Office of State Architect	6/8/1990	122061474	37693742	3S/2W 10A	1/90	0	0	0	10	BOR*
3S/2W	10M 2	2146 Grove Way	Chevron USA Products Cc	6/15/1993	122077017	37684393	3S/2W 10M	1/93	0	30	16	6	EXT
3S/2W	10Q 1	22178 N. 6TH STREET	WAYNE ONSTOTT	1/19/1990	122073846	37684529	3S/2W 10Q	Jul-89	0	30	0	8	DOM
3S/2W	10L10	22315 Redwood Rd	Former Beacon Station	7/31/1991	122072700	37683925	3S/2W 10L	4/91	69	25	13	4	MON
3S/2W	10L11	22315 Redwood Rd	Former Beacon Station	7/31/1991	122072700	37683925	3S/2W 10L	4/91	0	0	0	0	BOR*
3S/2W	10L12	22315 Redwood Rd	Former Beacon Station	7/31/1991	122072700	37683925	3S/2W 10L	3/91	157	30	22	4	MON
3S/2W	10L13	22315 Redwood Rd		10/19/1997	122072698	37683925	3S/2W 10L	5/93	0	28	18	2	MON
3S/2W	10L14	22315 Redwood Rd		10/19/1997	122072698	37683925	3S/2W 10L	5/93	0	25	16	2	MON
3S/2W	10L15	22315 Redwood Rd		10/19/1997	122072698	37683925	3S/2W 10L	5/93	0	30	21	2	MON
3S/2W	10L16	22315 Redwood Rd		10/19/1997	122072698	37683925	3S/2W 10L	5/93	0	30	23	2	MON
3S/2W	10L17	22315 Redwood Rd		10/19/1997	122072698	37683925	3S/2W 10L	5/93	0	33	22	2	MON
3S/2W	10L 1	22447 CHARLENE WAY	M. CLIFFORD	8/3/1984	122073861	37683907	3S/2W 10L	9/77	0	50	32	8	IRR
3S/2W	10L 7	2416 Grove Way	Chevron	3/28/1991	122071784	37684729	3S/2W 10L	6/90	0	12	11	2	MON
3S/2W	10L 8	2416 Grove Way	Chevron	3/28/1991	122071784	37684729	3S/2W 10L	8/90	0	30	17	2	MON
3S/2W	10L 9	2416 Grove Way	Chevron	3/28/1991	122071784	37684729	3S/2W 10L	8/90	0	30	18	2	MON
3S/2W	10G 1	2633 VEGAS AV	ANNA WEEDEN	12/18/1984	122070587	37689500	3S/2W 10G	4/77	0	24	7	4	IRR
3S/2W	3N 1	3098 CASTRO VALLEY BLV	ADOBE ASSOCIATES	11/6/1989	122079845	37695600	3S/2W 3N	Aug-89	0	30	19	2	MON
3S/2W	3N 2	3098 CASTRO VALLEY BLV	ADOBE ASSOCIATES	11/6/1989	122079845	37695600	3S/2W 3N	Aug-89	0	20	10	2	MON
3S/2W	3N 3	3098 CASTRO VALLEY BLV	ADOBE ASSOCIATES	11/6/1989	122079845	37695600	3S/2W 3N	Aug-89	0	25	16	2	MON
3S/2W	3N	3234 Castro Valley Blvd	Mitzi Stockel	7/30/1990	122078169	37695600	3S/2W 3N	Apr-90	0	8	0	2	BOR
3S/2W	3N 4	3234 Castro Valley Blvd	Mitzi Stockel	7/30/1990	122078169	37695600	3S/2W 3N	Apr-90	0	16	0	2	MON
3S/2W	3N 5	3234 Castro Valley Blvd	Mitzi Stockel	7/30/1990	122078169	37695600	3S/2W 3N	Apr-90	0	16	0	2	MON
3S/2W	3N 6	3234 Castro Valley Blvd	Mitzi Stockel	7/30/1990	122078169	37695600	3S/2W 3N	Apr-90	0	16	0	2	MON
3S/2W	3N 7	3234 Castro Valley Blvd	Mitzi Stockel	7/30/1990	122078169	37695600	3S/2W 3N	May-90	0	23	0	2	MON
3S/2W	3N 8	3234 Castro Valley Blvd	Mitzi Stockel	7/30/1990	122078169	37695600	3S/2W 3N	May-90	0	20	0	2	MON
3S/2W	3P18	3369 Castro Valley Blvd	Chevron USA	8/21/1997	122075857	37695400	3S/2W 3P	Oct-93	0	20	0	2	MON
3S/2W	3P19	3369 Castro Valley Blvd	Chevron USA	8/21/1997	122075857	37695400	3S/2W 3P	Oct-93	0	20	0	2	MON
3S/2W	3P20	3369 Castro Valley Blvd	Chevron USA	8/21/1997	122075857	37695400	3S/2W 3P	Oct-93	0	20	0	2	MON
3S/2W	3P21	3369 Castro Valley Blvd	Chevron USA	8/21/1997	122075857	37695400	3S/2W 3P	Oct-93	0	20	0	2	MON
3S/2W	3P22	3430 Castro Valley Blvd	Goodyear	12/26/1997	122074248	37695590	3S/2W 3P	Dec-96	0	16	14	2	MON
3S/2W	3P15	3430 Castro Valley Blvd	Goodyear Tire & Rubber C	7/24/1997	122074249	37695600	3S/2W 3P	9/94	0	20	0	2	MON
3S/2W	3P16	3430 Castro Valley Blvd	Goodyear Tire & Rubber C	7/24/1997	122074249	37695600	3S/2W 3P	9/94	0	20	0	2	MON
3S/2W	3P17	3430 Castro Valley Blvd	Goodyear Tire & Rubber C	7/24/1997	122074249	37695600	3S/2W 3P	9/94	0	20	0	2	MON
3S/2W	3P 1	3495 Castro Valley Blvd	Ted Simas	6/4/1990	122072910	37695400	3S/2W 3P	2/90	176	19	16	4	MON
3S/2W	3P26	3495 Castro Valley Blvd	Xtra Oil Company	10/27/1998	122072894	37695410	3S/2W 3P	8/97	0	20	0	2	MON
3S/2W	3P	3495 Castro Valley Blvd.	Ted Simas	6/4/1990	122072910	37695400	3S/2W 3P	2/90	0	0	0	6	BOR*
3S/2W	3P 2	3495 Castro Valley Blvd.	Ted Simas	6/4/1990	122072910	37695400	3S/2W 3P	2/90	176	18	15	4	MON
3S/2W	3P 3	3495 Castro Valley Blvd.	Ted Simas	6/4/1990	122072910	37695400	3S/2W 3P	2/90	175	18	16	4	MON
3S/2W	3P23	3519 Castro Valley Blvd	PB Oil Company	2/17/1998	122072089	37695228	3S/2W 3P	7/95	0	30	10	2	MON
3S/2W	3P24	3519 Castro Valley Blvd	PB Oil Company	2/17/1998	122072089	37695228	3S/2W 3P	7/95	0	30	10	2	MON
3S/2W	3P25	3519 Castro Valley Blvd	PB Oil Company	2/17/1998	122072089	37695228	3S/2W 3P	7/95	0	20	8	2	MON
3S/2W	3P10	3519 Castro Valley Blvd.	BP Oil Company ESE-1/M	4/30/1993	122072125	37695221	3S/2W 3P	9/92	0	30	20	2	MON
3S/2W	3P14	3519 Castro Valley Blvd.	BP Oil Company ESE-2/M	4/30/1993	122072125	37695221	3S/2W 3P	9/92	0	30	22	2	MON
3S/2W	3P12	3519 Castro Valley Blvd.	BP Oil Company ESE-3/M	4/30/1993	122072125	37695221	3S/2W 3P	9/92	0	30	24	2	MON

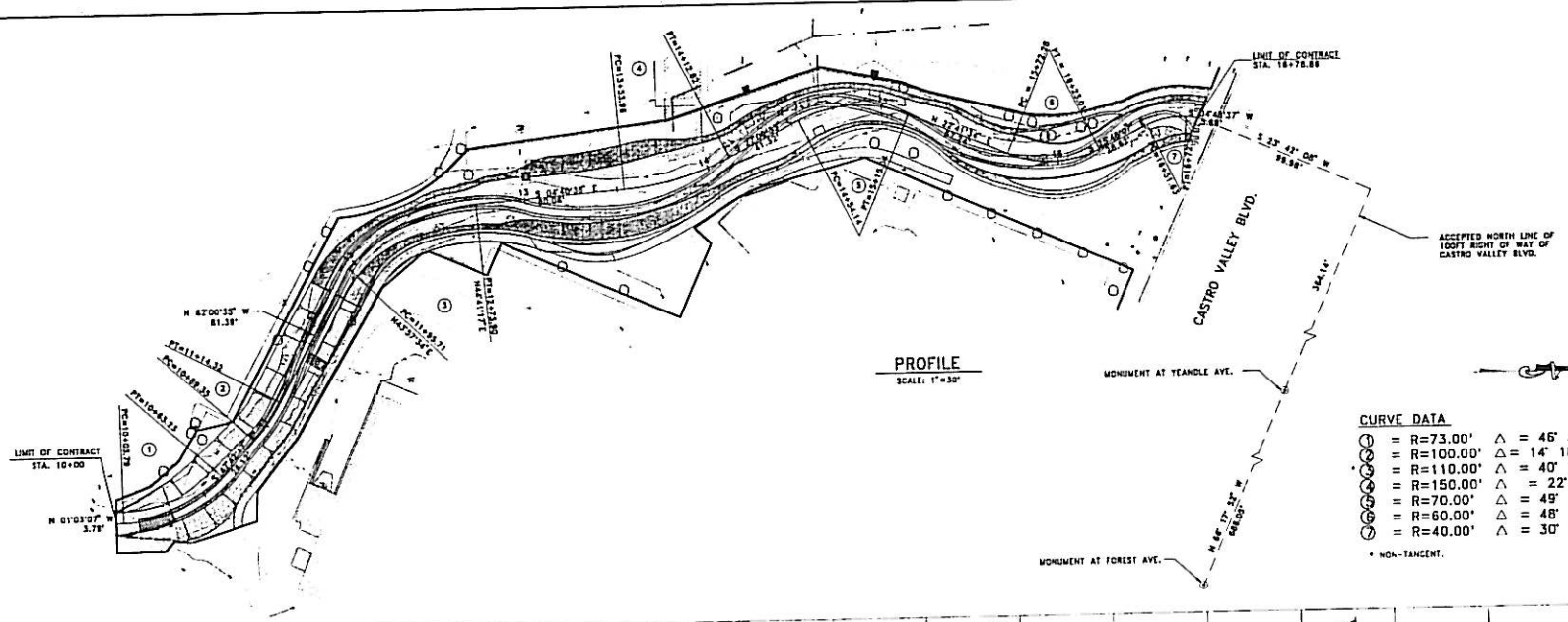
Tr	Section	Address	Owner	Update	Xcoord	Ycoord	Tsrqq	Drilldate	Elevation	Totaldepth	Waterdepth	Diameter	Use
3S/2W	3P13	3519 Castro Valley Blvd.	BP Oil Company ESE-4/M	4/30/1993	122072125	37695221	3S/2W 3P	9/92	0	25	15	2	MON
3S/2W	3P11	3519 Castro Valley Blvd.	BP Oil Company ESE-2/M	4/30/1993	122072125	37695221	3S/2W 3P	9/92	0	30	22	2	MON
3S/2W	3L 2	3533 JAMISON WAY	R. NAHAS CO.	8/2/1984	122074016	37698477	3S/2W 3L	?	0	25	9	5	DES
3S/2W	3L 3	3533 JAMISON WAY	R. NAHAS CO.	8/2/1984	122074016	37698477	3S/2W 3L	?	0	20	0	5	DES
3S/2W	3L 1	3559 JAMISON WAY	R. NAHAS CO.	8/2/1984	122074016	37698477	3S/2W 3L	Dec-75	0	56	9	0	DES
3S/2W	10A10	3889 Castro Valley Blvd	VIP Service (MW1)	1/18/1994	122065538	37693014	3S/2W 10A	Nov-93	181	20	12	2	MON
3S/2W	10A11	3889 Castro Valley Blvd	VIP Service (MW2)	1/18/1994	122065538	37693014	3S/2W 10A	Nov-93	180	20	12	2	MON
3S/2W	10A12	3889 Castro Valley Blvd	VIP Service (MW3)	1/18/1994	122065538	37693014	3S/2W 10A	Nov-93	179	20	13	2	MON
3S/2W	10A 1	3940 CASTRO VALLEY BLVI	TEXACO	4/30/1986	122063498	37692546	3S/2W 10A	Dec-85	0	30	20	2	MON
3S/2W	10A 7	3940 Castro Valley Blvd	Texaco Env Serv MW-6	9/24/1992	122063314	37692436	3S/2W 10A	1/92	187	38	21	4	MON
3S/2W	10A 8	3940 Castro Valley Blvd	Texaco Env Serv MW-7	9/24/1992	122063314	37692436	3S/2W 10A	1/92	190	38	30	4	MON
3S/2W	10A 9	3940 Castro Valley Blvd	Texaco Env Serv MW-8	9/24/1992	122063314	37692436	3S/2W 10A	1/92	194	40	29	4	MON
3S/2W	10A 3	3940 CASTRO VALLEY BLVI	TEXACO REF & MRKTG I	6/3/1988	122063498	37692546	3S/2W 10A	Dec-87	0	38	23	4	MON
3S/2W	10A	3940 CASTRO VALLEY BLVI	TEXACO REF & MRKTG I	6/3/1988	122063498	37692546	3S/2W 10A	Nov-87	0	35	31	0	BOR
3S/2W	10A 2	3940 CASTRO VALLEY BLVI	TEXACO REF & MRKTG I	6/3/1988	122063498	37692546	3S/2W 10A	Dec-87	0	45	28	4	MON
3S/2W	10A 4	3940 CASTRO VALLEY BLVI	TEXACO REF & MRKTG I	6/3/1988	122063498	37692546	3S/2W 10A	Dec-87	0	40	24	4	MON
3S/2W	10A 5	3940 Castro Valley Blvd	TEXACO REF.& MRKTG I	7/31/1990	122063498	37692546	3S/2W 10A	Apr-90	0	45	30	4	MON
3S/2W	10A 6	3940 Castro Valley Blvd	TEXACO REF.& MRKTG I	7/31/1990	122063498	37692546	3S/2W 10A	Apr-90	0	45	33	4	MON
3S/2W	10A 2	3940 Castro Valley Blvd.	Lakeshore Financial	7/6/1990	122063498	37692546	3S/2W 10A	4/89	0	20	0	4	DES
3S/2W	10A 4	3940 Castro Valley Blvd.	Lakeshore Financial	7/6/1990	122063498	37692546	3S/2W 10A	4/90	0	20	0	4	DES
3S/2W	3K 2	4057 STEVENS ST	R. FORQUEN	8/2/1984	122069571	37698477	3S/2W 3K	?	0	70	0	8	IRR
3S/2W	3A 2	4589 JAMES ST	H. PERTO	1/18/1985	122065027	37705271	3S/2W 3A	9/77	0	48	8	8	IRR
3S/2W	3J 1	9263 EDWARD LANE	DOROTHY WIXON	8/2/1984	122065075	37698477	3S/2W 3J	7/53	249	53	0	6	IRR
3S/2W	10B 1	9318 CASTRO VALLEY BLVI	WEINKE	8/3/1984	122069416	37691156	3S/2W 10B	9/49	0	79	0	0	?
3S/2W	10P 1	B & A ST	BENNCHAMP	8/3/1984	122073861	37680376	3S/2W 10P	9/46	125	512	0	10	DOM
3S/2W	3Q 2	BELOW MULFORD GARDEN	CURTIS	8/2/1984	122069571	37694933	3S/2W 3Q	2/57	0	85	8	8	?
3S/2W	3F 1	FOREST AVE	WOLF	8/2/1984	122141000	37701450	3S/2W 3F	6/49	0	51	0	8	DOM
3S/2W	3Q 1	MULFORD GARDEN	CURTIS OR BREED	8/2/1984	122158600	37690150	3S/2W 3Q	28-Dec	0	87	8	8	?
3S/2W	10M 1	ORCHARD ST	CARRIGAN	8/3/1984	122078567	37683907	3S/2W 10M	?	0	56	0	0	?
3S/2W	10L 2	REDWOOD RD & GROVE W	CHEVRON SERVICE STA	1/21/1987	122072600	37684200	3S/2W 10L	Oct-86	97	30	17	3	MON
3S/2W	10L 3	REDWOOD RD & GROVE W	CHEVRON SERVICE STA	1/21/1987	122072600	37684200	3S/2W 10L	Oct-86	96	31	16	3	MON
3S/2W	10L 4	REDWOOD RD & GROVE W	CHEVRON SERVICE STA	1/21/1987	122072600	37684200	3S/2W 10L	Oct-86	98	30	18	3	MON
3S/2W	10L 5	REDWOOD RD & GROVE W	CHEVRON SERVICE STA	1/21/1987	122072600	37684200	3S/2W 10L	Oct-86	100	30	17	3	MON
3S/2W	10H 2	UNKNOWN	UNKNOWN	3/14/1988	122065008	37687377	3S/2W 10H	May-77	0	30	5	0	IRR
3S/2W	10J 1	UNKNOWN	UNKNOWN	3/14/1988	122064990	37683907	3S/2W 10J	Jul-76	0	365	208	10	DOM

Appendix D

Castro Valley Creek Pictures and Construction Details

***Plate 1**: Looking downstream from the Castro Valley Boulevard*

***Plate 2**: Looking upstream towards the Castro Valley Boulevard*

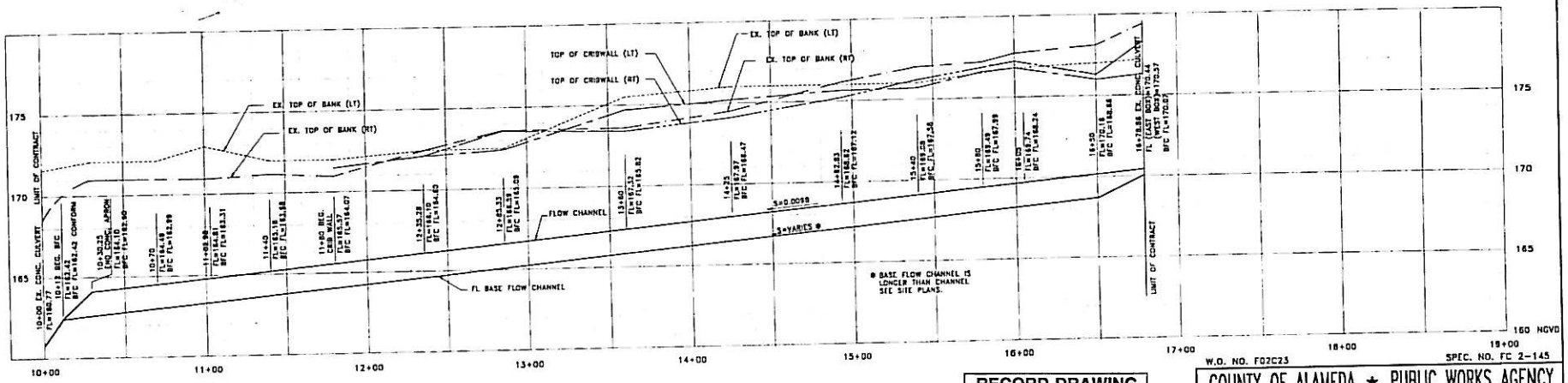


PROFILE
SCALE: 1"=30'

CURVE DATA

①	= R=73.00'	Δ = 46° 39'10"	L= 59.44'
②	= R=100.00'	Δ= 14° 18' 18"	L= 24.97'
③	= R=110.00'	Δ = 40° 43' 43"	L= 78.19'
④	= R=150.00'	Δ = 22° 28'55"	L= 58.86'
⑤	= R=70.00'	Δ = 49° 51'07"	L= 60.91'
⑥	= R=60.00'	Δ = 48° 26'41"	L= 50.73'
⑦	= R=40.00'	Δ = 30° 33'44"	L= 21.34'

* NON-TANGENT.



PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

RECORD DRAWING

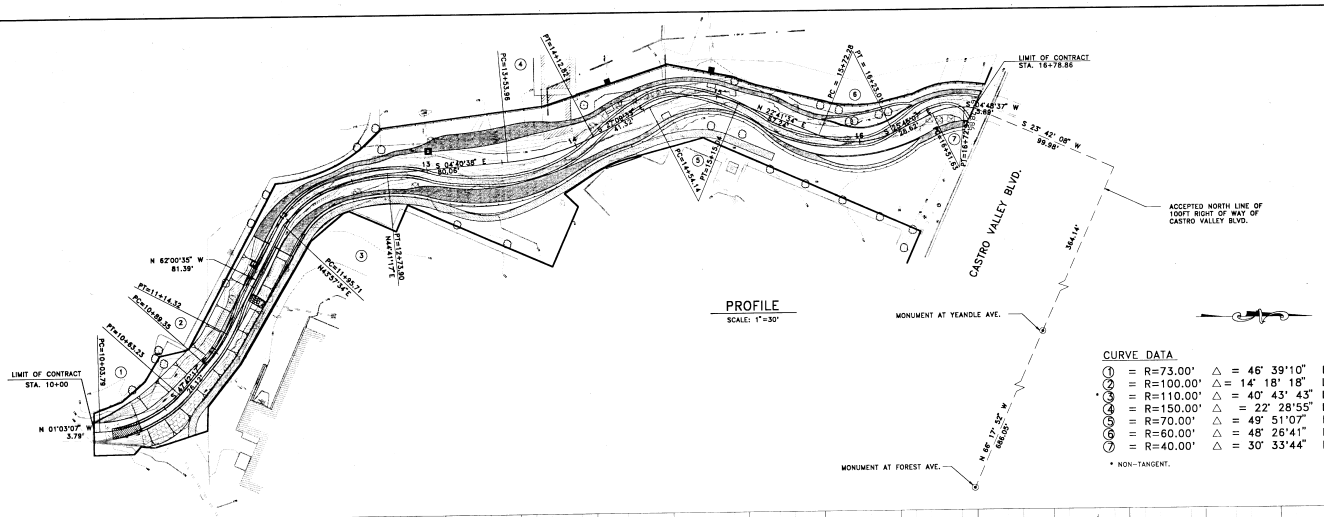
INSPECTOR
SUPERVISING INSPECTOR
CONSTRUCTION ENGINEER — DATE
DRAWING REVISED BY — DATE

W.O. NO. F02C23 SPEC. NO. FC 2-145

COUNTY OF ALAMEDA ★ PUBLIC WORKS AGENCY

DRAWN V.S.	IN CHARGE P.W.A.	CHECKED D.R.
APPROVED AS TO CONTENT Donna Koller		ZONE NO.2 PROJECT LINE J
APPROVED Rutger Johnson		PLAN AND PROFILE
DATE MAY 18, 1993	SCALE AS SHOWN	FILE NO. CB-736 SHEET NO. 3 OF 14

153PROF



PROFILE
SCALE: 1"=30'

CURVE DATA

①	R=73.00'	△ = 46° 39'10"	L= 59.44'
②	R=100.00'	△= 14° 18' 18"	L= 24.97'
③	R=110.00'	△ = 40° 43' 43"	L= 78.19'
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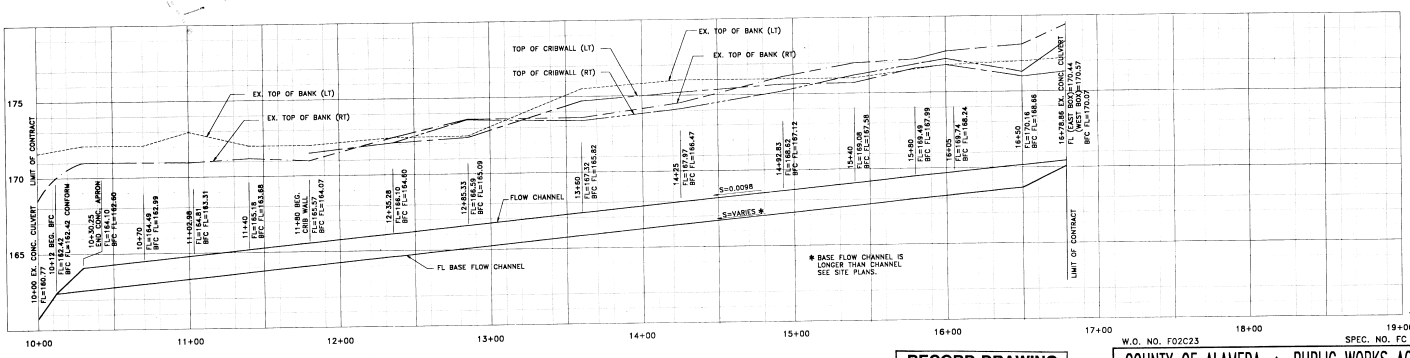
⑦	R=40.00'	△ = 30° 33'44"	L= 21.34'

* NON-TANGENT.



PROFILE
SCALE: HORIZ. 1"=30'
VERT. 1"=3'

RECORD DRAWING
INSPECTOR
SUPERVISING INSPECTOR
CONSTRUCTION ENGINEER DATE
DRAWING REVISED BY DATE 1-25-96

W.O. NO. F02C23 SPEC. NO. FC 2-145

COUNTY OF ALAMEDA ★ PUBLIC WORKS AGENCY

DRAWN	DESIGNED	CHECKED
V.S.	P.W.A.	D.R.

APPROVAL RECOMMENDED
APPROVED
DATE MAY 18, 1993 SCALE AS SHOWN

ZONE NO.2 PROJECT
LINE J
PLAN AND PROFILE

FILE NO. CB-736 SHEET NO. 3 OF 14

153PROF