

# **Xtra** OIL COMPANY

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**RECEIVED**

8:42 am, Dec 14, 2010

Alameda County  
Environmental Health

December 7, 2010

Mr. Paresh Khatri  
Alameda County Environmental Health Department  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502

**SUBJECT: SENSITIVE RECEPTOR SURVEY REPORT CERTIFICATION**  
County Case # RO 285  
Xtra Oil Company  
3495 Castro Valley Blvd.  
Castro Valley, CA

Dear Mr. Khatri:

P&D Environmental, Inc. has prepared the following document:

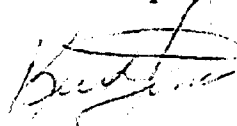
- Sensitive Receptor Survey Report dated December 7, 2010 (document 0014.R57).

I declare under penalty of perjury that the contents and conclusions in the document are true and correct to the best of my knowledge.

Should you have any questions, please do not hesitate to contact me at (510) 865-9506.

Sincerely,

Xtra Oil Company



Keith Simas

0014.L173

# **P&D ENVIRONMENTAL, INC.**

55 Santa Clara Ave, Suite 240  
Oakland, CA 94610  
(510) 658-6916

December 7, 2010  
Report 0014.R57

Mr. Ted Simas  
Mr. Keith Simas  
Xtra Oil Company  
2307 Pacific Ave.  
Alameda, CA 94501

SUBJECT: SENSITIVE RECEPTOR SURVEY REPORT  
County File #RO 285  
Xtra Oil Company  
3495 Castro Valley Blvd.  
Castro Valley, California

Gentlemen:

P&D Environmental, Inc. (P&D) is pleased to present this report documenting the results of a well survey and sensitive receptor survey for a 1/4-mile radius for the subject site. This report is written in response to a request from Mr. Scott Seery of the Alameda County Department of Environmental Health (ACDEH) in a letter dated July 24, 2003. A U.S. Geological Survey topographic map showing the location of the subject site with a 1/4-mile radius circle around the site is attached with this report as Figure 1. The locations of wells identified in the study area other than groundwater monitoring wells associated with contamination investigations are also shown on Figure 1. Wells identified during this investigation are limited to wells that are not associated with groundwater contamination investigations. The presently known extent of TPH-D, TPH-G and benzene in groundwater at and near the subject site associated with the UST release is shown in Figures 2, 3 and 4, respectively.

A total of six wells other than contamination investigation monitoring wells or borings were identified within the study area, in addition to two wells that did not have street addresses but which were located in a tract where portions of the tract are located within the study area. Based on the known extent of petroleum hydrocarbons in groundwater associated with the subject site, the southerly groundwater flow direction in the vicinity of the subject site, and the locations of wells identified during this evaluation, no wells other than groundwater monitoring wells associated with contamination investigations were identified at locations either within the known extent of petroleum hydrocarbons or at downgradient locations that could potentially be impacted in the future by petroleum hydrocarbons associated with the subject site.

## BACKGROUND

The well survey was requested by the ACDEH as part of the investigation of a release from an Underground Storage Tank (UST) at the subject site. Documentation of the investigation of the UST release is presented in greater detail in other reports for the subject site.

## WELL SURVEY

Well information was obtained from the California Department of Water Resources (DWR) and from the Alameda County Public Works Agency (ACPWA). The results are discussed below.

### Department of Water Resources

P&D submitted a request to Ms. Ann Roth of the DWR for available well information within a 1/4-mile radius of the subject site. On October 1, 2003 Ms. Roth provided a total of 47 Well Completion Reports (WCRs). A summary of information for each well report is provided in Table 1 attached with this report. Review of these reports showed that a total of three wells at different locations were identified within a 1/4-mile radius of the subject site. An additional two wells that did not have street addresses but which were located in a tract where portions of the tract are located within the study area were also identified.

All of the wells in Table 1 other than wells associated with contamination investigations are high-lighted in yellow. All of the wells in Table 1 that were either positively identified or potentially identified as being located in the study area are in bold. All of the wells in Table 1 that were positively identified as being located in the study area are shown on Figures 1 through 4. The locations, distance and bearing of the wells identified from the ACPWA data that are shown on Figures 1 through 4 were identified by locating the site address provided by ACPWA using the internet service Google Earth. The maximum depth of all of the wells identified by the DWR associated with contamination investigations was 45 feet.

A Google search was performed for the two wells that were identified in Table 1 as potentially being located in the study area (Files 28 and 29). The Google search for "Seamoor Lodge" and "Mulford Gardens" (address and owner listed on the WCR) lead to a website posted by the San Leandro Historical Society, which stated that some of the early settlers were Thomas W. Mulford and Moses Wicks who settled as duck hunters and squatters in the area we know as Mulford Gardens, known for large scale farming, shipping and oyster farming. Ms. Wendy Ledbetter with the Castro Valley Chamber of Commerce was contacted on January 21, 2009 to inquire about historical information pertaining to that location. No information was available about Seamoor Lodge or Mulford Gardens in Castro Valley but Ms. Ledbetter suggested that we contact Mr. Mike Tanzillo, a real estate agent with MTC Commercial Real Estate. Mr. Tanzillo was

contacted on January 21, 2009, and stated that Mulford Gardens is located near the San Leandro waterfront. Although no city is listed on the WCRs for these two wells and anecdotal information suggests that these two wells may be located in San Leandro, the two wells are identified in Table 2 as potentially located in the study area.

Although no WCRs were provided by the DWR for destruction of the wells identified in Files 39, 40 and 41, it is P&D's understanding that these wells were destroyed in preparation for construction of the existing Bay Area Rapid Transit parking lot that is now located where the wells were previously located.

#### Alameda County Public Works Agency

P&D also submitted a request to Mr. James Yoo of the Alameda County Public Works Agency (ACPWA) for available well information within a 1/4-mile radius of the subject site. On January 15, 2009 Ms. Vicky Hamlin of ACPWA provided tables via e-mail to P&D that transmitted the findings of the ACPWA database search. Ms. Hamlin stated in her transmittal that the search area is in Township T3S, Range R2W, and included all or part of Section 3 Tracts K, L, M, N, P, Q; and Section 10 Tracts B,C, D. Ms. Hamlin also stated that there were no results for wells in the search area in the ACPWA database in the underlined Sections identified above.

A total of 49 well records in the study area were included in the spreadsheet provided by ACPWA. A modified copy of the spreadsheet is provided in Table 2 attached with this report. Information removed from the spreadsheet provided by ACPWA included X coordinate, Y coordinate, Match Level, and Rec code. In addition, a notes column was added to the spreadsheet. Review of the ACPWA information showed that a total of three wells other than wells associated with contamination investigations were identified at different locations within a 1/4-mile radius of the subject site. The three wells were not identified in the DWR database.

All of the wells in Table 2 other than wells associated with contamination investigations are high-lighted in yellow. All of the wells in Table 2 that were identified as being located in the study area are in bold. All of the wells in Table 2 that were identified as being located in the study area are shown on Figures 1 through 4. The locations, distance and bearing of the wells identified from the ACPWA data that are shown on Figures 1 through 4 were identified by locating the site address provided by ACPWA using the internet service Google Earth. The maximum depth of all of the wells identified by ACPWA associated with contamination investigations was 37 feet.

#### HYDROGEOLOGY

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene Alluvium (Qpa), which is described as

weakly consolidated, slightly weathered, poorly sorted, irregularly interbedded clay, silt, sand, and gravel.

The subsurface materials encountered in boreholes associated with investigation of the subject site have consisted predominantly of silty clay, with lesser amounts of clayey silt. Coarse -grained materials consisting of silty or clayey sand were encountered in several boreholes in layers ranging from approximately 1.0 to 1.5 feet thick. First-encountered groundwater is generally encountered in contamination investigation wells associated with the subject site at depths ranging from approximately 7 to 9 feet at the subject site and at depths ranging from approximately 3 to 5 feet in the vicinity of Redwood Court (located approximately 500 feet southwest of the subject site). The groundwater flow direction in the vicinity of the subject site is southerly.

Surface water bodies in the vicinity of the subject site consist of Castro Valley Creek (a tributary of San Lorenzo Creek) is located approximately 500 feet east of the subject site. The portions of the creek in the vicinity of the subject site are lined with concrete.

#### WELL SEARCHES AT NEARBY SITES

Review of available files on GeoTracker for nearby sites identified well surveys for the following addresses.

- 3369 Castro Valley Boulevard - December 16, 1992 Well Survey Results for Former Chevron Service Facility
- 3519 Castro Valley Boulevard - August 8, 2006 Well Survey Results for Former BP Service Facility

Review of the results of the well searches for these sites did not reveal any new wells that had not already been identified associated with the ¼-mile radius well search for the subject site.

#### SENSITIVE RECEPTORS

Internet searches were performed using the search functions at the internet services Mapquest, Yahoo, and Yellow Pages for sensitive receptor facilities in the vicinity of 3495 Castro Valley Boulevard, Castro Valley. Once the subject site address had been entered and a site vicinity map was obtained for each website, the “search nearby” field was used to search for each of the following types of facility: day care, daycare, nursery school, child care, childcare, preschool, pre-school, school, recreation center, hospital, convalescent home, and nursing home. The distance between the sites identified during the internet search and the subject site was measured using the internet service Google Earth by entering the facility addresses into the location search field and using the measuring tool to measure the distance from each facility to the subject site. No facilities were identified within ¼ mile of the subject site.

## DISCUSSION AND RECOMMENDATIONS

A total of six wells other than contamination investigation monitoring wells or borings were identified within the study area (see Figure 1), in addition to two wells that did not have street addresses but which were located in a tract where portions of the tract are located within the study area (see Table 1). Based on the southerly groundwater flow direction in the vicinity of the subject site, the known extent of petroleum hydrocarbons in groundwater associated with the subject site, and the locations of wells identified during this evaluation (see Figures 2 through 4), no wells other than groundwater monitoring wells associated with contamination investigations were identified at locations either within the known extent of petroleum hydrocarbons or at downgradient locations that could potentially be impacted in the future by petroleum hydrocarbons associated with the subject site.

P&D recommends that the known extent of petroleum hydrocarbons in groundwater in the vicinity of the subject site be re-evaluated to determine if additional evaluation of the presence of wells or other sensitive receptors to the southwest of the subject site is warranted following completion of the delineation of the downgradient extent of petroleum hydrocarbons in groundwater to the southwest of the subject site,

## DISTRIBUTION

Copies of this report should be sent to Mr. Paresh Khatri of the Alameda County Department of Environmental Health. Copies of the report should be accompanied by a transmittal letter signed by an authorized representative of Xtra Oil Company.

## LIMITATIONS

This report was prepared solely for the use of Xtra Oil Company. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

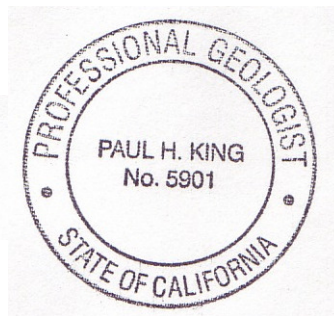
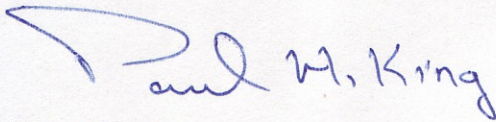
This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King  
Professional Geologist #5901  
Expires: 12/31/11

Attachments:

Table 1 - Department of Water Resources Well Summary Information  
Table 2 - Alameda County Public Works Agency Well Summary Information

Figure 1 - Well Location Map  
Figure 2 - Well Location Map Detail Showing TPH-D Groundwater Isoconcentration Contours  
Figure 3 - Well Location Map Detail Showing TPH-G Groundwater Isoconcentration Contours  
Figure 4 - Well Location Map Detail Showing Benzene Groundwater Isoconcentration Contours

PHK/wrw/sjc/mld  
0014.R57

# **TABLES**



Table 1  
Department of Water Resources  
Well Summary Information

<u>Assigned DWR File #</u>	<u>Township/ Range</u>	<u>Section/ Tract</u>	<u>Street Address</u>	<u>City</u>	<u>Owner</u>	<u>Total Borehole Depth (Feet)</u>	<u>Use/ Designation</u>	<u>DWR WCR #</u>	<u>Date Completed</u>	<u>Notes</u>
1	3S/2W	3/A2	4589 James Street	Castro Valley	Mrs. H. Perko	48	Irrigation	106190	09/16/77	NOT IN STUDY AREA (Approx 4,000 ft. N83°E)
2	3S/2W	3/B1	19861 Forest Ave.	Castro Valley	Ronald L. Silva	50	Irrigation	106617	08/29/77	NOT IN STUDY AREA (Approx 2,450 ft. N34°E)
3	3S/2W	3/B1	20287 Marshall Street	Castro Valley	Mr. Ornelas	61	Irrigation	33295	12/01/77	NOT IN STUDY AREA (Approx 2,400 ft. N75°E)
4	3S/2W	3/C1	20450 Redwood Rd.	Castro Valley	Exxon Oil	50	Cathodic	120974	08/19/77	Located within 1/4 mile of subject site (Approx 500 ft. N14°E)
5	3S/2W	3/F1	Forest Ave.	Castro Valley	Wolfe	51	Not Stated	01-1387	June 1949	NOT IN STUDY AREA. The well is identified in tract F, however Forest Ave. is 600 ft. or more to the east of tract F. No street number is provided. The closest location of Forest Ave. to the subject site is 1,480 ft. due east of the subject site.
6	3S/2W	3/K	Forest Ave.	Castro Valley	Martins Nursery	63	Not Stated	01-1388	July 1949	NOT IN STUDY AREA. The owner is Martins Nursery. File #7 shows a street address for Martins Nursery of 20115 Forest Ave., which is approx 1,990 ft. N40°E of the subject site.
7	3S/2W	3/K	20115 Forest Ave.	Castro Valley	Martins Nursery	116	Irrigation	01-1389	08/18/53	NOT IN STUDY AREA (Approx 1,990 ft. N40°E)
8	3S/2W	3/K	Forest Ave.	Castro Valley	Martins Nursery	70	Not Stated	01-1390	No Date	NOT IN STUDY AREA. The owner is Martins Nursery. File #7 shows a street address for Martins Nursery of 20115 Forest Ave., which is approx 1,990 ft. N40°E of the subject site.
9	3S/2W	3/K3	19910 Forest Ave.	Castro Valley	Jack Luse	56	Irrigation	33508	08/18/77	NOT IN STUDY AREA (Approx 2,430 ft. N38°E)
10	3S/2W	3/N1	3098 Castro Valley Blvd.	Castro Valley	Adobe Plaza	30	MW1, MW2, MW3	No WCR	08/11/89	Contamination investigation
11	3S/2W	3/N4,5,6,7 .8	Not Stated	Castro Valley	Mitzi Stockel	Wells = 16 to 23, Borings = 8 to 20	MW1, MW2, MW3, MW4, MW5, B1 through B11	No WCR	4/24/90, 4/25/90, 5/11/90, 5/16/90	Contamination investigation (site address identified as 3234 Castro Valley Blvd from ACPWA database)
12	3S/2W	3/P	20405 Redwood Road	Castro Valley	Unocal 76	35	SB1 through SB13	No WCR	03/13/91	Contamination investigation
13	3S/2W	3/P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	12	SB1	304335D	02/15/90	Contamination investigation
14	3S/2W	3/P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	12	SB2	304335F	02/15/90	Contamination investigation

Table 1  
Department of Water Resources  
Well Summary Information

<u>Assigned DWR File #</u>	<u>Township/ Range</u>	<u>Section/ Tract</u>	<u>Street Address</u>	<u>City</u>	<u>Owner</u>	<u>Total Borehole Depth (Feet)</u>	<u>Use/ Designation</u>	<u>DWR WCR #</u>	<u>Date Completed</u>	<u>Notes</u>
15	3S/2W	3/P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	12	SB3	304335E	02/15/90	Contamination investigation
16	3S/2W	3/P1	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	20	MW 1	304335A	02/14/90	Contamination investigation
17	3S/2W	3/P2	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	18	MW2	304335B	02/14/90	Contamination investigation
18	3S/2W	3/P3	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	18	MW3	304335C	02/15/90	Contamination investigation
19	3S/2W	3/P4	20405 Redwood Road	Castro Valley	R.T. Nahas Company	31	MW1, MW1A, MW2, MW3	No WCR	12/4/89, 12/5/89, 12/7/89	Contamination investigation
20	3S/2W	3/P7	20629 Redwood Rd.	Castro Valley	R.T. Nahas Company	36.5	MW-5	107237	03/31/92	Contamination investigation
21	3S/2W	3/P8	20629 Redwood Rd.	Castro Valley	R.T. Nahas Company	29	MW-6	107238	04/01/92	Contamination investigation
22	3S/2W	3/P9	20629 Redwood Rd.	Castro Valley	R.T. Nahas Company	31	MW-7	107239	04/02/92	Contamination investigation
23	3S/2W	3/P10	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company	30	ESE-1/ MW-1	427880	09/29/92	Contamination investigation
24	3S/2W	3/P11	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company	31	ESE-2/MW-2	427881	09/29/92	Contamination investigation
25	3S/2W	3/P12	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company	30.5	ESE-3/MW-3	427882	09/29/92	Contamination investigation
26	3S/2W	3/P13	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company	25	ESE-4/MW-4	427883	09/29/92	Contamination investigation
27	3S/2W	3/P14	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company	27	ESE-5/MW-5	427884	09/29/92	Contamination investigation
28	3S/2W	3/Q1	"Near Breed Property below Muford Gardens"	Not Stated	"Curties or Breed?"	87	Not Stated	01-1391	12/21/28, 2/20/50	Possibly located within 1/4 mile of site (In tract Q located 800 to 2,100 ft. east of subject site)
29	3S/2W	3/Q2	"(Possibly Breed property below Mulford Gardens)"	Not Stated	"Curties property" Seamoor Lodge""	85	Not Stated	01-1392	2/29/57, 2/20/50	Possibly located within 1/4 mile of site (In tract Q located 800 to 2,100 ft. east of subject site)
30	3S/2W	3/Q3	20283 Yeandle Ave.	Castro Valley	Robert D Rousey	28	Irrigation	33742	05/07/77	Located within 1/4 mile of site (Approx 1,100 ft.
31	3S/2W	3/Q5	20551 Forest Ave.	Castro Valley	Howard W. Burkhart	57	Not Stated	01-1393	02/20/50	Located within 1/4 mile of site (Approx 1,230 ft. N75°E)
32	3S/2W	10/A1	3940 Castro Valley Blvd.	Castro Valley	Texaco	30	MW	No WCR	12/10/85	Contamination investigation
33	3S/2W	10/A2	3940 Castro Valley Blvd.	Castro Valley	Texaco	45	MW-1	180493	12/16/87	Contamination investigation
34	3S/2W	10/A3	3940 Castro Valley Blvd.	Castro Valley	Texaco	38	MW-2	180499	12/17/87	Contamination investigation
35	3S/2W	10/A4	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW-3	180498	12/17/87	Contamination investigation
36	3S/2W	10/A7	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW6	342610A	01/20/91	Contamination investigation
37	3S/2W	10/A8	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW7	342610B	01/21/92	Contamination investigation
38	3S/2W	10/A9	3940 Castro Valley Blvd.	Castro Valley	Texaco	40	MW8	342610C	01/22/92	Contamination investigation
39	3S/2W	10/C1	2100 Wilbeam Ave.	Castro Valley	Bay Area Rapid Transit District	15.5	MW-1	407680A	02/18/93	Contamination investigation

Table 1  
 Department of Water Resources  
 Well Summary Information

Assigned DWR File #	Township/Range	Section/Tract	Street Address	City	Owner	Total Borehole Depth (Feet)	Use/ Designation	DWR WCR #	Date Completed	Notes
40	3S/2W	10/C2	2100 Wilbeam Ave.	Castro Valley	Bay Area Rapid Transit District	15.5	MW-2	407680B	02/18/93	Contamination investigation
41	3S/2W	10/C3	2100 Wilbeam Ave.	Castro Valley	Bay Area Rapid Transit District	15.5	MW-3	407680C	02/18/93	Contamination investigation
42	3S/2W	Unknown	8047 Parsons Rd. (street number not found on current maps)	Castro Valley	C.E. Alvarez	70	Irrigation/ Test Well	01-1386	02/20/53	NOT IN STUDY AREA. Based on the closest existing locations of Parsons Ave. (Approx 4,700 ft. N30°W) and Parsons Ct. (Approx 4,380 ft. N33°W).
43	3S/2W	Unknown	8045 Lorena (street number not found on current maps)	Castro Valley	Smith	60	Irrigation	613	06/12/56	NOT IN STUDY AREA. Based on the closest existing locations of Lorena Ave. (Approx 1,800 ft. N1°W), Lorena Circle (Approx 1,970 ft. N23°W) and Lorena Place (Approx 1,555 ft. N19°W).
44	3S/2W	Unknown	10000 Madison Ave.	Castro Valley	C.H. Gosset	70	Domestic	6402	06/29/54	NOT IN STUDY AREA (Approx 6,640 ft. N28°E)
45	3S/2W	Unknown	9100 Edwards Lane	Castro Valley	G. Anderson	53	Domestic	6418	09/08/54	NOT IN STUDY AREA (Approx 5,330 ft. N69°E)
46	3S/2W	Unknown	Not Stated	Castro Valley	Wilson	73	Test Well	6425	10/28/54	NOT IN STUDY AREA. Based on 4-foot depth to bedrock.
47	3S/2W	Unknown	Center Street	Hayward	John Macedo	94	Domestic	01-1480	04/18/52	NOT IN STUDY AREA. No street number is provided. The closest location of Forest Ave. to the subject site is 3,450 ft. due east of the subject site.
Notes:										
MW = Monitoring Well										
SB = Soil Boring										
EB = Exploratory Borehole										
B = Boring										
DWR = Department of Water Resources										
WCR = Well Completion Report										
= Non-Contamination Investigation Well.										

Table 2  
Alameda County Public Works Agency Well Summary Information

<u>Assigned ACPWA File #</u>	<u>Township /Range</u>	<u>Section, Tract, and Well Number</u>	<u>Address</u>	<u>City</u>	<u>Owner</u>	<u>Update</u>	<u>Drilldate</u>	<u>Total Depth</u>	<u>Water Depth</u>	<u>Casing Diameter (Inches)</u>	<u>Use</u>	<u>Notes</u>
1	3S/2W	3K 3	19910 FOREST AVE	San Leandro	JACK LUSE	8/2/1984	8/77	56	38	8	IRR	NOT IN STUDY AREA (Approx 2,430 ft. N38°E). City is incorretly identified as San Leandro.
2	3S/2W	3K 1	20115 FOREST AVE	San Leandro	MARTIN NURSERY	8/2/1984	8/53	116	28	10	IRR	NOT IN STUDY AREA (Approx 1,990 ft. N40°E). City is incorrectly identified as San Leandro.
3	3S/2W	3K 4	19945 FOREST	San Leandro	MR. WEHE	8/2/1984	3/78	51	15	8	DES	NOT IN STUDY AREA (Approx 2,230 ft. N37°E). City is incorretly identified as San Leandro.
4	3S/2W	3K 2	4057 STEVENS ST	San Leandro	R. FORQUEN	8/2/1984	?	70	0	8	IRR	NOT IN STUDY AREA (Approx 1,730 ft. N26°E). City is incorrectly identified as San Leandro.
5	3S/2W	3L 1	3559 JAMISON WAY	San Leandro	R. NAHAS CO.	8/2/1984	Dec-75	56	9	0	DES	Located within 1/4 mile of site (Approx 1,170 ft. N35°W). WELL DESTROYED. City is incorrectly identified as San Leandro.
6	3S/2W	3L 2	3533 JAMISON WAY	San Leandro	R. NAHAS CO.	8/2/1984	?	25	9	5	DES	Located within 1/4 mile of site (Approx 1,250 ft. N39°W). WELL DESTROYED. City is incorrectly identified as San Leandro.
7	3S/2W	3L 3	3533 JAMISON WAY	San Leandro	R. NAHAS CO.	8/2/1984	?	20	0	5	DES	Located within 1/4 mile of site (Approx 1,170 ft. N35°W). WELL DESTROYED. City is incorrectly identified as San Leandro.
8	3S/2W	3N 1	3098 CASTRO VALLEY BLVD	Castro Valley	ADOBE ASSOCIATES	11/6/1989	Aug-89	30	19	2	MON	Contamination investigation
9	3S/2W	3N 2	3098 CASTRO VALLEY BLVD	Castro Valley	ADOBE ASSOCIATES	11/6/1989	Aug-89	20	10	2	MON	Contamination investigation
10	3S/2W	3N 3	3098 CASTRO VALLEY BLVD	Castro Valley	ADOBE ASSOCIATES	11/6/1989	Aug-89	25	16	2	MON	Contamination investigation
11	3S/2W	3N	3234 Castro Valley Blvd	Castro Valley	Mitzi Stockel	7/30/1990	Apr-90	8	0	2	BOR	Contamination investigation
12	3S/2W	3N 4	3234 Castro Valley Blvd	Castro Valley	Mitzi Stockel	7/30/1990	Apr-90	16	0	2	MON	Contamination investigation
13	3S/2W	3N 5	3234 Castro Valley Blvd	Castro Valley	Mitzi Stockel	7/30/1990	Apr-90	16	0	2	MON	Contamination investigation
14	3S/2W	3N 6	3234 Castro Valley Blvd	Castro Valley	Mitzi Stockel	7/30/1990	Apr-90	16	0	2	MON	Contamination investigation
15	3S/2W	3N 7	3234 Castro Valley Blvd	Castro Valley	Mitzi Stockel	7/30/1990	May-90	23	0	2	MON	Contamination investigation
16	3S/2W	3N 8	3234 Castro Valley Blvd	Castro Valley	Mitzi Stockel	7/30/1990	May-90	20	0	2	MON	Contamination investigation
17	3S/2W	3P10	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company ESE-1/MW1	4/30/1993	9/92	30	20	2	MON	Contamination investigation
18	3S/2W	3P14	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company ESE-2/MW5	4/30/1993	9/92	30	22	2	MON	Contamination investigation
19	3S/2W	3P12	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company ESE-3/MW3	4/30/1993	9/92	30	24	2	MON	Contamination investigation
20	3S/2W	3P13	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company ESE-4/MW4	4/30/1993	9/92	25	15	2	MON	Contamination investigation
21	3S/2W	3P11	3519 Castro Valley Blvd.	Castro Valley	BP Oil Company ESE-2/MW2	4/30/1993	9/92	30	22	2	MON	Contamination investigation
22	3S/2W	3P18	3369 Castro Valley Blvd	Castro Valley	Chevron USA	8/21/1997	Oct-93	20	0	2	MON	Contamination investigation
23	3S/2W	3P19	3369 Castro Valley Blvd	Castro Valley	Chevron USA	8/21/1997	Oct-93	20	0	2	MON	Contamination investigation
24	3S/2W	3P20	3369 Castro Valley Blvd	Castro Valley	Chevron USA	8/21/1997	Oct-93	20	0	2	MON	Contamination investigation
25	3S/2W	3P21	3369 Castro Valley Blvd	Castro Valley	Chevron USA	8/21/1997	Oct-93	20	0	2	MON	Contamination investigation
26	3S/2W	3P22	3430 Castro Valley Blvd	Castro Valley	Goodyear	12/26/1997	Dec-96	16	14	2	MON	Contamination investigation
27	3S/2W	3P15	3430 Castro Valley Blvd	Castro Valley	Goodyear Tire & Rubber Co	7/24/1997	9/94	20	0	2	MON	Contamination investigation
28	3S/2W	3P16	3430 Castro Valley Blvd	Castro Valley	Goodyear Tire & Rubber Co	7/24/1997	9/94	20	0	2	MON	Contamination investigation
29	3S/2W	3P17	3430 Castro Valley Blvd	Castro Valley	Goodyear Tire & Rubber Co	7/24/1997	9/94	20	0	2	MON	Contamination investigation
30	3S/2W	3P23	3519 Castro Valley Blvd	Castro Valley	PB Oil Company	2/17/1998	7/95	30	10	2	MON	Contamination investigation

Table 2  
Alameda County Public Works Agency Well Summary Information

Assigned ACPWA File #	Township /Range	Section, Tract, and Well Number	Address	City	Owner	Update	Drilldate	Total Depth	Water Depth	Casing Diameter (Inches)	Use	Notes
31	3S/2W	3P24	3519 Castro Valley Blvd	Castro Valley	PB Oil Company	2/17/1998	7/95	30	10	2	MON	Contamination investigation
32	3S/2W	3P25	3519 Castro Valley Blvd	Castro Valley	PB Oil Company	2/17/1998	7/95	20	8	2	MON	Contamination investigation
33	3S/2W	3P 7	20629 Redwood Rd	Castro Valley	R. T. Nahas Co. MW-5	9/21/1992	3/92	37	23	2	MON	Contamination investigation
34	3S/2W	3P 8	20629 Redwood Rd	Castro Valley	R. T. Nahas Co. MW-6	9/21/1992	4/92	29	16	2	MON	Contamination investigation
35	3S/2W	3P 9	20629 Redwood Rd	Castro Valley	R. T. Nahas Co. MW-7	9/21/1992	4/92	31	15	2	MON	Contamination investigation
36	3S/2W	3P	20405 Redwood Road	Castro Valley	R. T. Nahas Company	7/9/1990	Dec-89	0	12	8	BOR	Contamination investigation
37	3S/2W	3P 4	20405 Redwood Road	Castro Valley	R. T. Nahas Company	7/9/1990	Dec-89	30	12	2	MON	Contamination investigation
38	3S/2W	3P 5	20405 Redwood Road	Castro Valley	R. T. Nahas Company	7/9/1990	Dec-89	30	12	2	MON	Contamination investigation
39	3S/2W	3P 6	20405 Redwood Road	Castro Valley	R. T. Nahas Company	7/9/1990	Dec-89	25	12	2	MON	Contamination investigation
40	3S/2W	3P	20405 Redwood Rd	Castro Valley	Robert T. Nahus	8/1/1991	5/91	0	28	8	BOR*	Contamination investigation
41	3S/2W	3P	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	6/4/1990	2/90	0	0	6	BOR*	Contamination investigation
42	3S/2W	3P 1	3495 Castro Valley Blvd	Castro Valley	Ted Simas	6/4/1990	2/90	19	16	4	MON	Contamination investigation
43	3S/2W	3P 2	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	6/4/1990	2/90	18	15	4	MON	Contamination investigation
44	3S/2W	3P 3	3495 Castro Valley Blvd.	Castro Valley	Ted Simas	6/4/1990	2/90	18	16	4	MON	Contamination investigation
45	3S/2W	3P26	3495 Castro Valley Blvd	Castro Valley	Xtra Oil Company	10/27/1998	8/97	20	0	2	MON	Contamination investigation
46	3S/2W	10B 1	9318 CASTRO VALLEY BLVD	Castro Valley	WEINKE	8/3/1984	9/49	79	0	0	?	NOT IN STUDY AREA. The portion of Section 10 Tract B that is adjacent to Castro Valley Blvd. is approx. 2,100 ft. S79°E from the site.
47	3S/2W	10C 1	21000 Wilbeam Ave.	Castro Valley	BART MW-1	7/15/1993	2/93	16	14	2	MON	Contamination investigation
48	3S/2W	10C 2	21000 Wilbeam Ave.	Castro Valley	BART MW-2	7/15/1993	2/93	16	14	2	MON	Contamination investigation
49	3S/2W	10C 3	21000 Wilbeam Ave.	Castro Valley	BART MW-3	7/15/1993	2/93	16	14	2	MON	Contamination investigation
<b>NOTES</b>												
DOM = Domestic Well												
IRR = Irrigation Well												
MUN = Municipal Well												
IND = Industrial Well												
CAT = Cathodic Well												
DES = Well Destroyed through Permit												
ABN = Abandoned and not being used (but has not been destroyed by permit process)												
TES = Test Well												
BOR = Geotechnical Investigation												
MON = Monitoring Well												
EXT = Extraction/Vapor Wells												
PIE = Piezometers												
REC = Recovery Well (extraction/vapor)												
? = Unknown or no information found or given												
= Non-Contamination Investigation Well.												

**Well Legend**

DOM=Domestic well

IRR=Irrigation well

MUN= Municipal well

IND=Industrial well

CAT=Cathodic well

DES=well destroyed (through permit)

ABN=Abandoned and not being used (but has not been destroyed through permit process)

TES=Test well

BOR= Geotechnical investigation

MON= Monitoring well

EXT=Extraction/ Vapor wells

PIE=Piezometers

REC=Recovery well (extraction/ vapor)

? = Unknown or no information found or given

# **FIGURES**



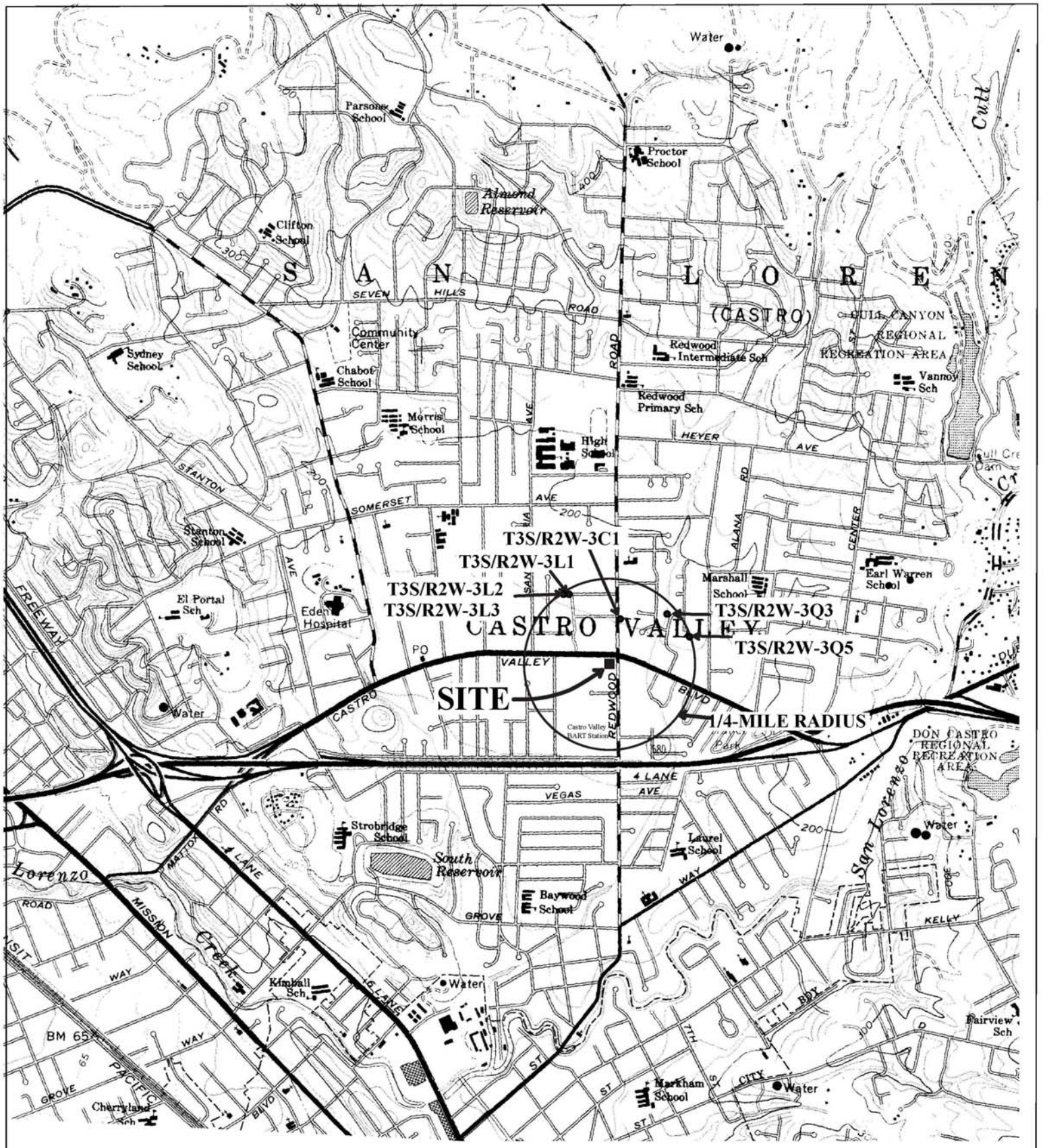
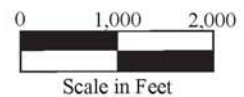


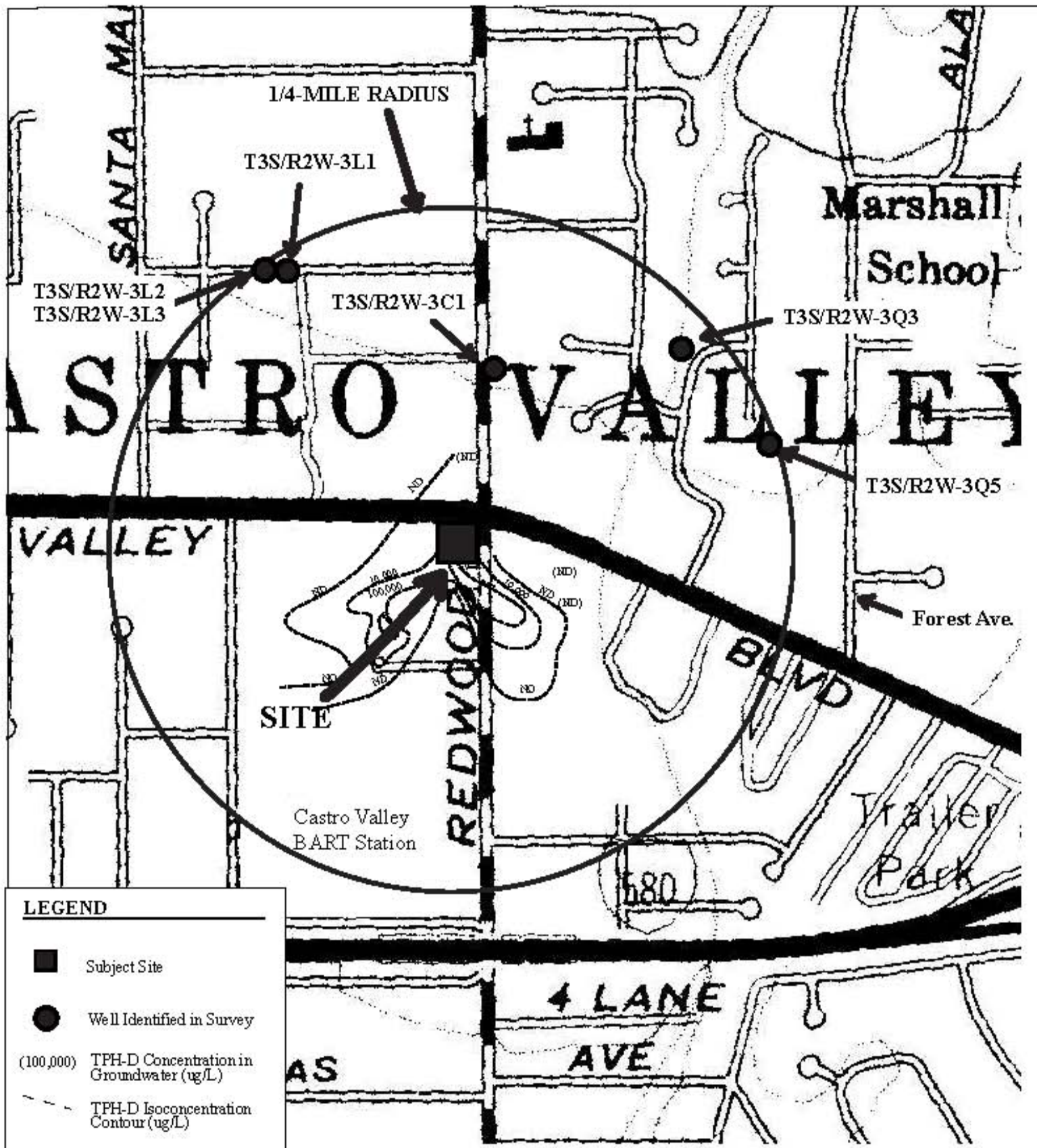
Figure 1  
 Well Location Map  
 Xtra Oil Company  
 3495 Castro Valley Boulevard  
 Castro Valley, California

Base Map From:  
 U.S. Geological Survey  
 Hayward, Calif.  
 7.5 Minute Quadrangle  
 Photorevised 1980

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610







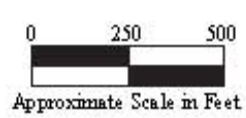
**LEGEND**

- Subject Site
- Well Identified in Survey
- (100,000) TPH-D Concentration in Groundwater (ug/L)
- - - TPH-D Isoconcentration Contour (ug/L)

Figure 2  
 Well Location Map Detail Showing TPH-D Groundwater Isoconcentration Contours  
 Xtra Oil Company  
 3495 Castro Valley Boulevard  
 Castro Valley, California

Base Map From:  
 U.S. Geological Survey  
 Hayward, Calif.  
 7.5 Minute Quadrangle  
 Photorevised 1980

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610



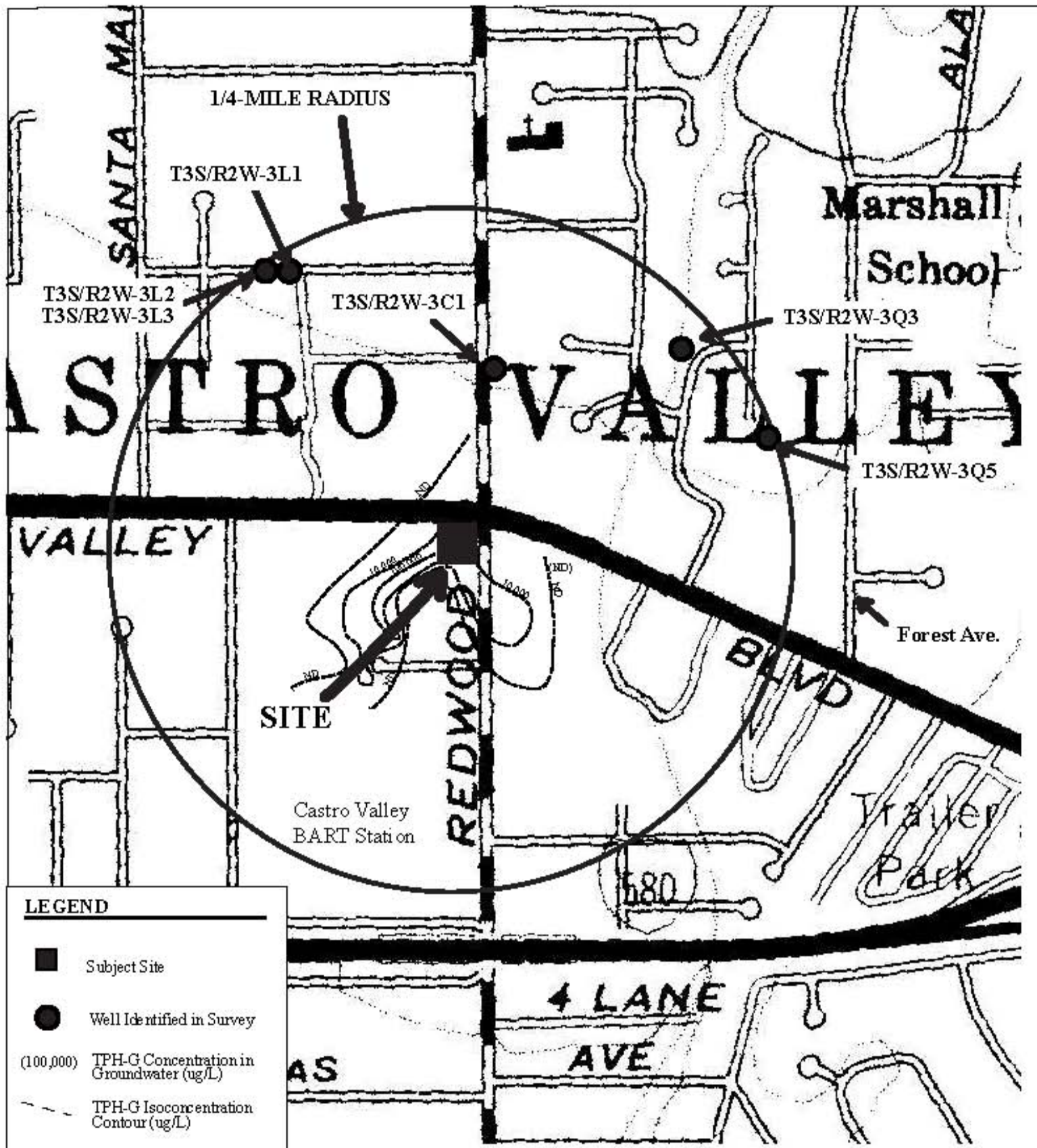


Figure 3  
 Well Location Map Detail Showing TPH-G Groundwater Isoconcentration Contours  
 Xtra Oil Company  
 3495 Castro Valley Boulevard  
 Castro Valley, California

Base Map From:  
 U.S. Geological Survey  
 Hayward, Calif.  
 7.5 Minute Quadangle  
 Photorevised 1980

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610

0 250 500  
 Approximate Scale in Feet





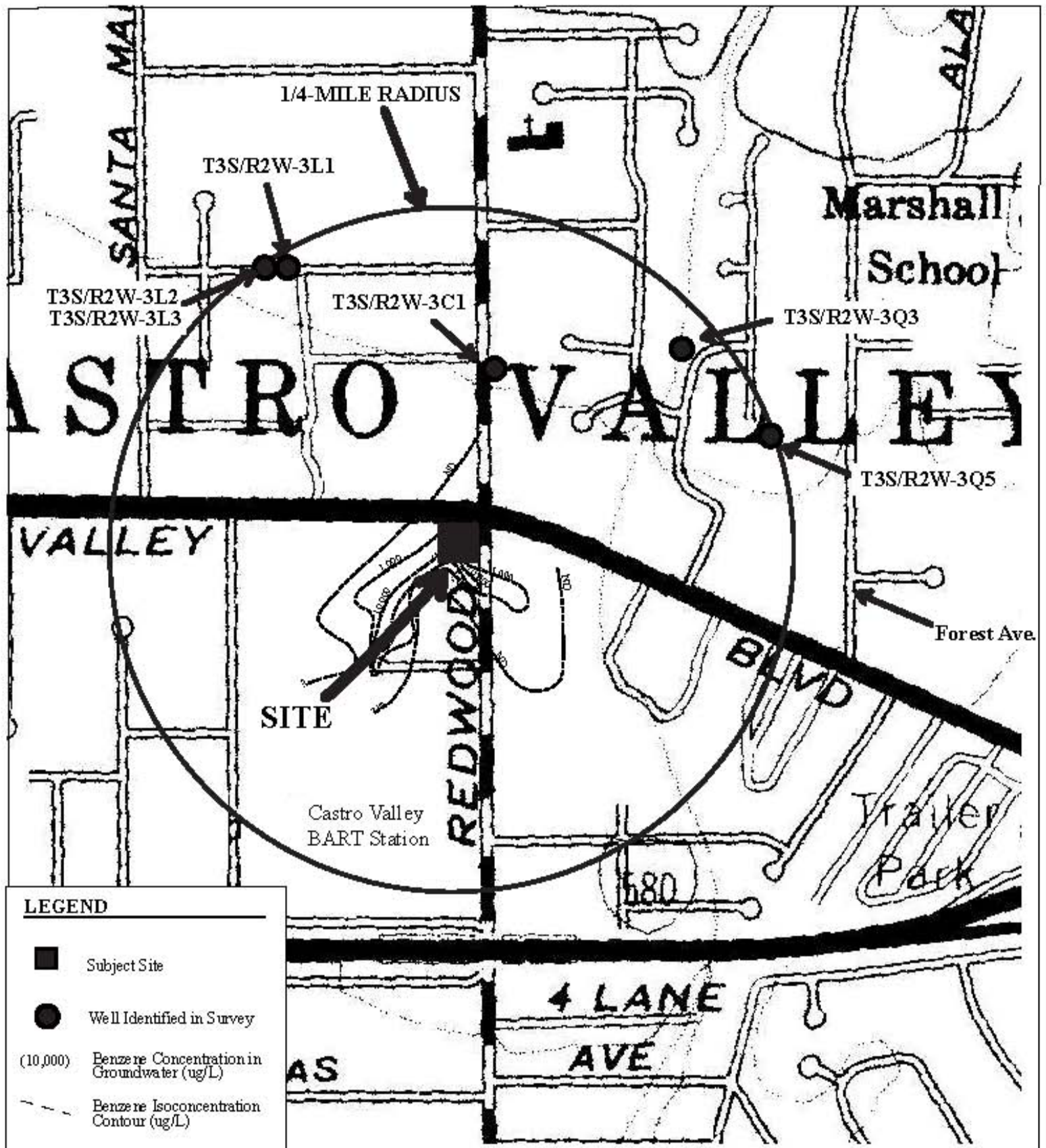


Figure 4  
 Well Location Map Detail Showing Benzene Groundwater Isoconcentration Contours  
 Xtra Oil Company  
 3495 Castro Valley Boulevard  
 Castro Valley, California

Base Map From:  
 U.S. Geological Survey  
 Hayward, Calif.  
 7.5 Minute Quadangle  
 Photorevised 1980

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610

0 250 500  
 Approximate Scale in Feet

