

October 27, 2004

Mr. Robert Schultz
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Case Closure Summary, Case #RO0000511
Former BP Service Station #11270
3255 McCartney Road, Alameda, California

Dear Mr. Schultz:

On behalf of the Atlantic Richfield Company (RM-an affiliated company of BP), URS Corporation (URS) has prepared this Case Closure Summary for the above referenced facility (the Site). This Case Closure Summary was prepared to assist Alameda County Health Care Services's (ACHCS) ongoing efforts to determine if the Site is qualified for case closure. A letter from ACHCS to BP representative Mr. Scott Hooten, dated October 31, 2001, indicated ACHCS's intent to make a determination if No Further Action is required or issue a closure letter for the Site (Attachment A). This Case Closure Summary includes a discussion of the Site background, Site hydrogeology, low risk groundwater case criteria evaluation, and recommendations.

SITE HISTORY AND PREVIOUS INVESTIGATIVE AND REMEDIAL ACTIVITIES

The Site is an operational service station located within a developed shopping center at the northern corner of the intersection of Island Drive and Mecartney Road in Alameda, California. The Site is located in a mixed commercial residential neighborhood. The Site location is shown on Figure 1. BP acquired the Site from Mobil in 1989 and TOSCO subsequently acquired the Site from BP in 1994. Site features include three gasoline underground storage tanks (USTs), two pump islands, a station building, and a service bay with two hoists. The onsite USTs include one 12,000 gallon, one 10,000 gallon, and one 6,000 gallon fiberglass tanks installed in 1981. The Site plan is shown on Figure 2.

In May 1990, two soil samples (P1 and P2) were collected from beneath the product dispensers during a routine dispenser modification. The respective samples were collected from material excavated to a depth of approximately 4.5 feet below ground surface (bgs). After additional excavation in the area of sample P1, one additional soil sample P1(8) was collected at a depth of approximately 8 feet bgs. Two sidewall samples (SW1 and SW2) were collected from the sidewalls of the product line trench in the vicinity of sample point P1 at a depth of approximately 4.5 feet bgs. All soil samples collected were analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, xylenes (BTEX), and total lead. The respective sample locations are shown in Attachment B and the analytical results are presented in

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Attachment C. Based on the hydrocarbon concentrations detected in sample SW1, additional soils were excavated 8 feet laterally and to a depth of approximately 8 feet bgs in the area of sample SW1. During overexcavation, water was encountered at approximately 8 feet bgs. Three soil samples (SW3, SW4 and SW5) were subsequently collected at depths of 8, 4.5 and 4.5 feet bgs and analyzed for TPH-g, BTEX and total Lead (Attachments B and C). Based on the hydrocarbon concentrations detected in samples SW4 and SW5, additional soils were excavated 7 feet laterally and to a depth of about 8 feet bgs in the vicinity of samples SW4 and SW5. Four soil samples (SW6 through SW9) were collected from material excavated by a backhoe to a depth of approximately 4.5 feet bgs and analyzed for TPH-g, BTEX and Total lead (Attachments B and C). Soil was not excavated south of sample SW3 because of its proximity to the UST complex. A total of approximately 195 cubic yards of soils were excavated, aerated onsite and appropriately disposed offsite.

In August 1992, a preliminary site assessment was conducted at the Site involving the sampling of two pre-existing Mobil groundwater monitoring wells MW-2 and MW-4. The analytical results of the respective samples are included in Attachment D. Samples could not be collected from two additional pre-existing wells MW-1 through MW-3 due to insufficient recharge. The well locations (MW-1 through MW-4) are shown in Attachment B. Product sheens were observed on the purge water from all the monitoring wells. However, it was indicated that age, outdated construction of the wells, and silting of wells MW-1 and MW-3 likely decreased their hydraulic connection to the Site groundwater. Records of boring logs and well construction details for wells MW-1 through MW-4 could not be located.

In October 1994, as part of a supplemental site assessment, two exploratory soil borings (TB-1 and TB-2) were advanced to 10 feet bgs (Attachment B). The analytical results of soil samples collected from the respective borings are included in Attachment C.

In June 1993, a 4-inch groundwater monitoring well MW-5 was installed offsite, near the western corner of the Site. In January 1995, one 4-inch monitoring well MW-6 was installed onsite and one 2-inch monitoring well MW-7 was installed offsite. Borings MW-5 and MW-6 was drilled to 15 feet bgs and MW-7 was drilled to 16.5 feet bgs. Groundwater was encountered in the wells at depths ranging between 5 and 7.5 feet bgs. The respective well locations are shown in Attachment B and the analytical results of soil samples collected from MW-5 through MW-7 are included in Attachment C. Wells MW-1 through MW-4 were subsequently destroyed in January 1995. The boring logs and well construction details for wells MW-5 through MW-7, and the DWR well destruction logs for wells MW-1 through MW-4 are included in Attachment E.

In November 1996, a Tier 2 risk-based corrective action (RBCA) evaluation was conducted to determine the potential exposure risk to residual benzene concentrations in onsite soils. The results of the evaluation indicated that the levels of benzene in soil eight feet bgs should not pose a risk to onsite workers. Risks to potential hypothetical future residents reportedly exceeded the lower, more protective end of the USEPA acceptable risk range. The evaluation also concluded

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that ongoing natural attenuation was likely to reduce residual benzene concentrations to below the acceptable risk range prior to the unlikely scenario of the Site being converted to residential use.

In December 1996, the oil/water separator located on the floor of the vehicle service bay at the west side of the service station building was cleaned and removed. Two soil samples (OWS-1, 0.5' and OWS-1, 2') were subsequently collected from beneath the former oil/water separator location. The respective sampling locations are shown in Attachment B and the analytical results are included in Attachment C.

In August 1997, samples of pea gravel base material (S-1, through S-4) were collected from the bottom of each dispenser and analyzed for TPH-g, BTEX and methyl tertiary butyl ether (MTBE). The respective sampling locations are shown in Attachment B and the analytical results are included in Attachment C.

In July 1998, one 1,000 gallon single walled fiberglass used-oil UST was removed from the Site (Attachment B). The removed UST was noted to be intact with no visible holes or cracks. One native soil sample (S-6-T1E) was collected from the eastern sidewall of the UST cavity at a depth of approximately 7 feet bgs. The analytical results of the respective soil sample are included in Attachment C.

In August 2000, onsite dispensers and product lines were removed and replaced. A total of four pea gravel samples (PD-1-2', PD-2-1.5', PD-3-1.5', and PD-4-1.5') were collected from beneath each of the four product dispensers, and four pea gravel samples (PL-3-1.5', PL-4-1.5', PL-6-1.5', and PL-7-1.5') were collected from beneath the product lines (Attachment B). Three pea gravel samples were also collected at each of the ends of the fuel USTs (F-1-4', F-2-4', and F-5-3'). The analytical results of the respective soil sample are included in Attachment C.

A groundwater monitoring program was initiated since October 1992 starting with wells MW-1 through MW-4 and was continued till September 2001, incorporating wells MW-5 through MW-7, and offsite wells XW-1 through XW-3 that are not associated with the Site. The analytical results of the groundwater monitoring program are included in Attachment D. The potentiometric groundwater elevation contour map and a figure depicting the concentrations of petroleum hydrocarbons in groundwater during the most recent monitoring session conducted in September 2001 are also included in Attachment D. The monitoring program was discontinued in September 2001, awaiting ACHCS's determination if the Site is qualified for case closure.

SITE GEOLOGY AND HYDROGEOLOGY

The Site is situated approximately 4,500 feet south of San Leandro Bay, and approximately 3,500 to 5,400 feet northeast of the present shoreline of San Francisco Bay. Sediments encountered at the Site generally consisted of silty to gravelly sand and sandy gravel to the explored depth of 16.5 feet bgs. Lean clay was encountered in MW-5 from 13 to 15 feet bgs,

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and gravelly clay (possibly fill) from 3.5 to 5 feet bgs in MW-7. Groundwater was encountered during drilling at 5 to 7.5 feet bgs. Copies of the boring logs and well construction diagrams are included as Attachment E.

In November 1992, a sensitive receptor survey and existing well search were conducted, the results of which are included in Attachment F. No public water supply wells were identified within approximately 2,500 feet of the Site. No private water supply wells were identified within 1,000 feet of the Site. Additionally, no subways, basements, and schools were identified within 1,000 feet of the Site. The survey identified a surface water body located about 500 feet from the Site, but did not name it. As observed during a site visit by URS, this surface water body is a channel excavated as part of a residential development; it is uncertain if it is connected to the San Francisco Bay, located greater than ½ mile from the Site.

According to the Regional Water Quality Control Board (RWQCB) San Francisco Bay Region "East Bay Plain Groundwater Basin Beneficial Use Evaluation Report", Figures 16 and 17, June 1999, there are one shallow (less than 100 feet bgs) and four deep (greater than 100 feet bgs) irrigation wells located within 0.5 miles of the Site (Attachment F). During the groundwater monitoring program, the depth to water at onsite and offsite wells have ranged between 5.24 feet bgs and 9.15 feet bgs. Historically the groundwater flow direction at the Site has ranged from west through northeast. During the last monitoring session in September 2001, the groundwater flow direction at the Site was westerly at a hydraulic gradient of 0.01 foot per foot (Attachment D).

LOW RISK GROUNDWATER CASE CRITERIA REVIEW

The six criteria for closure as a low-risk groundwater case as listed in the San Francisco Regional Water Quality Control Board (SFRWQCB) *Interim Guidance Document* 1996 (December 8, 1995) include:

The leak has been stopped and ongoing sources, including free product, have been removed or remediated:

Between July 1998 and August 2000, part of the primary source(s) comprising of one used-oil UST, one oil/water separator, two dispenser islands, and product piping were removed from the Site and appropriately disposed offsite. Additionally, approximately 195 cubic yards of hydrocarbon impacted soils were excavated, aerated onsite and appropriately disposed offsite.

The Site has been adequately characterized:

The results of soil and groundwater analysis indicate that the extent of petroleum hydrocarbons has been adequately characterized at the Site. The results of soil and groundwater sampling performed to date at the site are presented and summarized in Attachments B, C and D. Historical analytical results of soil samples collected at the Site between 1990 and 2000 indicate that the potentially remaining petroleum hydrocarbons are limited to the former source areas, i.e., the UST complex and dispenser locations. The vertical limit of hydrocarbons in the soil

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appear to have historically extended to the capillary fringe zone, as the depth to water at the Site has ranged between 5.24 feet bgs and 9.15 feet bgs. Petroleum hydrocarbons historically detected at concentrations of concern were at the following locations and depths (Attachments B and C): at approximately 8 feet bgs in excavation soil sample SW3 in May 1990 (860 mg/kg TPH-g and 5 mg/kg benzene); at approximately 8 feet bgs in excavation soil sample P1(8) in May 1990 (1.0 mg/kg benzene); and at approximately 5 feet bgs in boring soil sample MW-6-5' in January 1995 (480 mg/kg TPH-diesel). The respective TPH-g and benzene concentrations exceed applicable non-drinking water commercial ESLs of 400 mg/kg for TPH-g and 0.38 mg/kg for benzene but the TPH-d concentrations do not exceed the applicable non-drinking water commercial ESL of 500 mg/kg for TPH-d. It is to be noted that residual petroleum hydrocarbons historically detected in onsite soils have most likely attenuated due to ongoing biodegradation.

The extent of the residual dissolved-phase hydrocarbon plume has been generally defined. Well MW-5 defines the southern to southwestern extent, wells MW-6, MW-7 and XW-3 define the western extent, well XW-1 defines the eastern to southeastern extent, and well XW-2 defines the north to northeastern extent (Figure 2). However, it is to be noted that no monitoring wells are located directly north of the onsite UST complex and dispensers and historically, the groundwater flow direction at the Site has ranged between west through north to northeast. Hydrocarbons concentrations have consistently remained at low to non-detect concentrations in wells MW-5, MW-6, MW-7, XW-1, XW-2, and XW-3, which generally define the extent of the residual dissolved hydrocarbon plume. (Attachment D).

The dissolved hydrocarbon plume is not migrating:

The analytical results of the groundwater monitoring program indicate that the remaining dissolved hydrocarbon concentrations at wells MW-5, MW-6, MW-7, XW-1, XW-2, and XW-3 have consistently remained at relatively low to non-detect concentrations (Attachment D). The respective wells define the northern, southern, eastern and western boundaries of the residual dissolved hydrocarbon plume. Accordingly, this is indicative that the residual dissolved hydrocarbon plume is not migrating.

No water wells, deeper drinking water aquifers, surface water or other sensitive receptors are likely to be impacted:

Considering that the dissolved phase hydrocarbon concentrations in wells defining the extent of the residual hydrocarbon plume have consistently remained at low to non-detect concentrations, indicative of a non-migratory plume, no water wells, deeper drinking water aquifers, surface water or other sensitive receptors are likely to be impacted. Additionally, no public water supply wells were identified within approximately 2,500 feet of the Site, no private water supply wells were identified within 1,000 feet of the Site, and no subways, basements, and schools were identified within 1,000 feet of the Site. Onsite detected concentrations of TPH-g and BTEX detected in groundwater are below RWQCB's Environmental Screening Levels (ESLs) for

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drinking water sources (ESL Table F1-a), and MTBE is below non-drinking water ESLs (ESL Table B).

The Site presents no significant risk to human health:

The results of a Tier 2 RBCA evaluation was conducted in November 1996 indicated that the historical residual levels of benzene in onsite soils at approximately eight feet bgs should not pose a risk to onsite workers. Risks to potential hypothetical future residents reportedly exceeded the low end of the USEPA acceptable risk range, albeit, risks at the lower, more protective end of the acceptable risk range. The evaluation also concluded that ongoing natural attenuation was likely to reduce residual benzene concentrations to below the acceptable risk range prior to the unlikely scenario of the Site being converted to residential use. Additionally, the entire Site is paved over limiting potential exposure pathways and it is also likely the historically detected hydrocarbon concentrations have been further reduced over time by natural attenuation.

The site presents no significant risk to the environment:

Considering the relatively low hydrocarbon concentrations likely to be remaining in onsite soils at depths exceeding 8 feet bgs and the lack of migration of the remaining dissolved hydrocarbon plume confined within the Site, the Site is unlikely to present significant risk to the environment. In addition, the absence of ecological receptors and suitable habitat renders the potential ecological exposure pathways onsite and in the vicinity incomplete. The site is located in a highly commercialized and urbanized area and the site and its surroundings consist primarily of paved surfaces, although a surface water channel exists about 700 feet north of the Site, possibly connected to the San Francisco Bay.

RECOMMENDATION FOR CASE CLOSURE

The data reviewed indicate the Site is a low-risk groundwater case as defined by the RWQCB. Natural attenuation at the Site is likely to further reduce residual hydrocarbon concentrations in soil and groundwater at the Site. Based on these findings, case closure is requested for this Site.

LIMITATIONS

This report is based on data, Site conditions and other information that is generally applicable as of the date of the report, and the conclusions and recommendations herein are therefore applicable only to that time frame. Background information including but not limited to previous field measurements, analytical results, Site plans and other data have been furnished to URS by RM, their previous consultants, and/or third parties, which URS has used in preparing this report. URS has relied on this information as furnished, and is neither responsible for nor has confirmed the accuracy of this information.

Analytical data provided by RM approved laboratory has been reviewed and verified by the laboratory. URS has not performed an independent review of the data and is neither responsible for nor has confirmed the accuracy of this data. Field measurements have been supplied by a

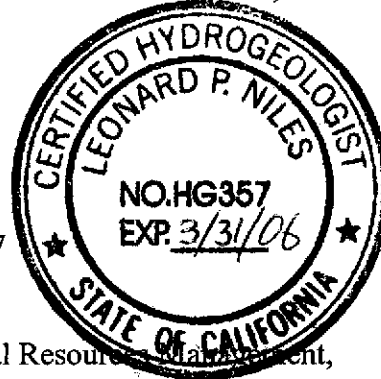
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groundwater sampling subcontractor. URS has not performed an independent review of the field sampling data and is neither responsible for nor has confirmed the accuracy of this data.

If you have any questions or concerns, please contact me at (510) 874-1720.

Sincerely,
URS CORPORATION

Leonard P. Niles
Leonard P. Niles, R.G. #5774, C.H.G. #357
Project Manager



cc: Mr. Kyle Christie, BP, Environmental Resources Management, (electronic file uploaded to ENFOS)
Ms. Liz Sewell, ConocoPhillips, 76 Broadway, Sacramento, CA 95818
Mr. Chris Jimmerson, Delta Environmental Consultants, 3164 Gold Camp Drive, Suite 200, Rancho Cordova, CA 95670-6021

ATTACHMENTS

References

Figure 1 – Site Location Map
Figure 2 – Site Plan

Attachment A – ACHCS's October 31, 2001 correspondence
Attachment B – Historical Sample Location Figures
Attachment C – Historical Soil Analytical Data
Attachment D – Historical Water Analytical Data and Third Quarter 2001 Figures
Attachment E – Boring Logs/Well Completion Diagrams
Attachment F – Sensitive Receptor Survey and Well Search Results
Attachment G – Case Closure Summary Form



REFERENCES

Kaprealian Engineering, Inc. 1990. Soil Sampling Report. July 16.

EMCON. 1994. Baseline Assessment Report. Site Number 11270. December 27.

Hydro-Environmental Technologies, Inc. 1993. Preliminary Site Assessment Report. January 7.

Hydro-Environmental Technologies, Inc. 1995. Subsurface Investigation Report. March 22.

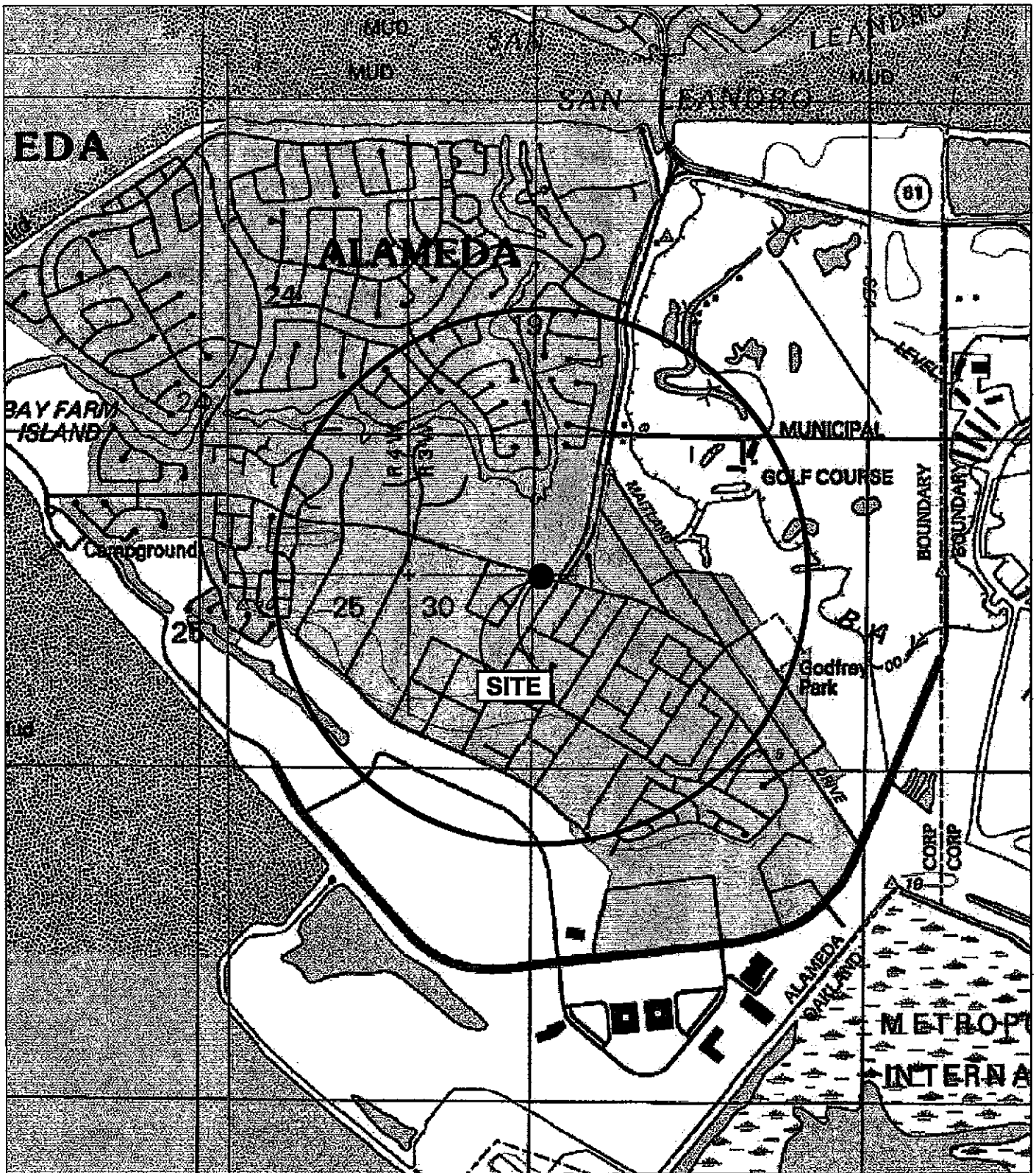
Foster Wheeler Environmental Corporation. 1996. Tier 2 RBCA Evaluation for the Former BP Oil Site No. 11270, Island & Mecartney, Alameda, California. November 1.

Pacific Environmental Group, Inc. 1997. Oil/Water Separator Closure Documentation. Tosco Service Station 11270. January 20.

Alisto Engineering Goup. 1997. Soil Sampling at Fuel Dispenser Islands. BP Oil Company Service Station No. 11270. September 19.

Environmental Resolutions, Inc. 1998. Underground Storage Tank Removal at Tosco BP Service Station 11270. October 23.

Secor International, Inc. 2000. Removal and Replacement of Product Lines and Dispensers. Tosco (Former BP) Service Station #11270. September 5.



REFERENCE:

BASE MAP FROM USGS TOPOI
NORTH REGION 7

7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1998



QUADRANGLE LOCATION



NORTH



APPROXIMATE SCALE 1" = 1400'

Sep 14, 2004 - 11:00am
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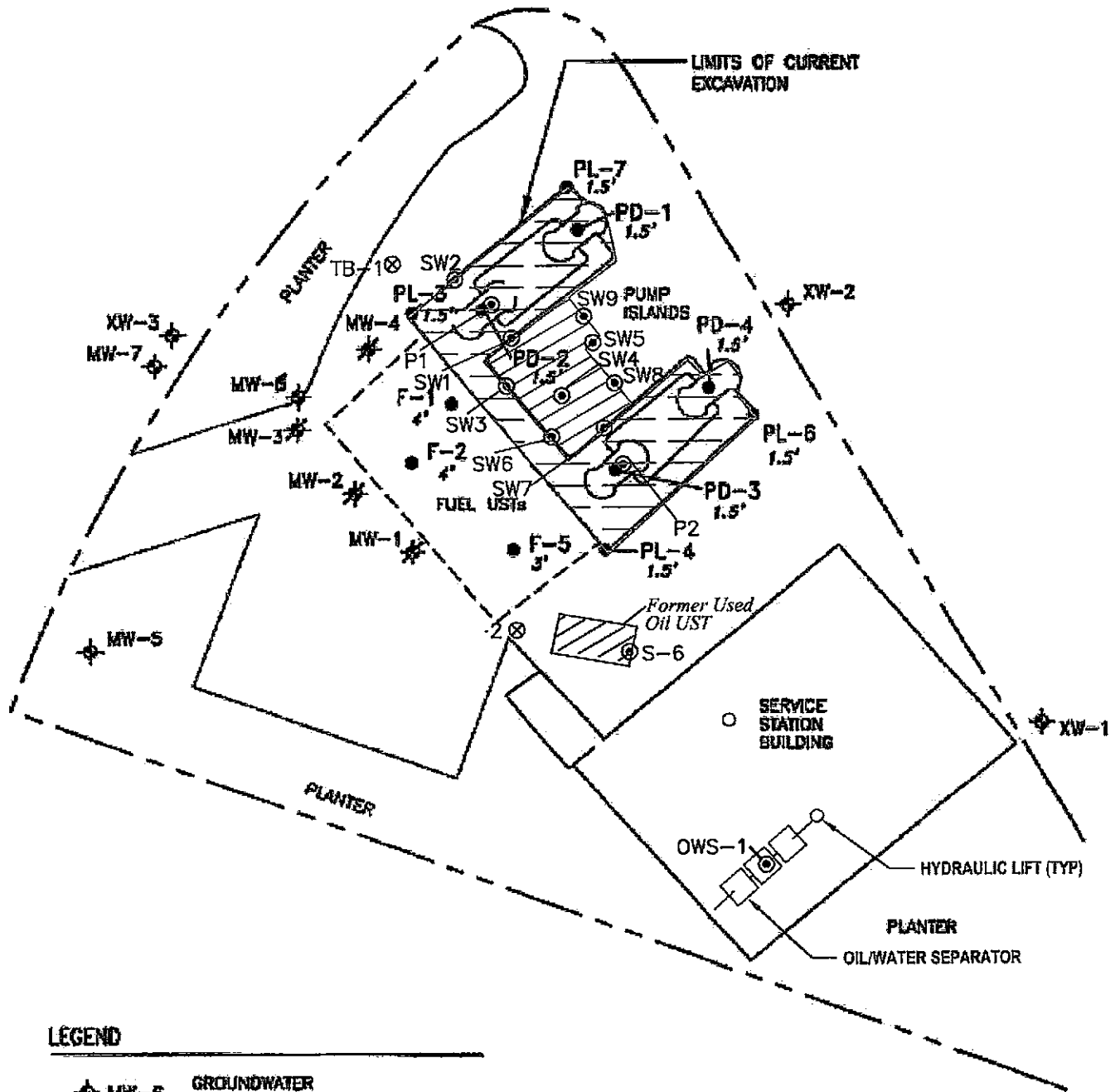


Project No. 38486833
 Former BP Service Station #11270
 3255 Mecartney Road
 Alameda, California

SITE LOCATION MAP

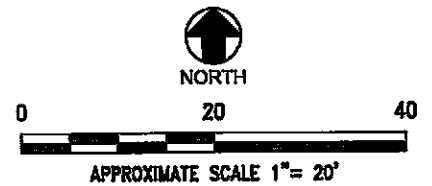
FIGURE

1



LEGEND

- ◆ MW-6 GROUNDWATER MONITORING WELL
- ✱ MW-2 ABANDONED GROUNDWATER MONITORING WELL
- APPROXIMATE PROPERTY LINE
- F-2 SOIL SAMPLING LOCATION AND DEPTH (FEET bgs)
- ⊗ TB-2 TOSCO BORING LOCATION
- ⊙ S-6 SOIL SAMPLE
- ▨ EXCAVATED AREA TO 8.5 FEET BGS
- ▤ EXCAVATED AREA FROM 1.5 TO 4.5 FEET BGS



Oct 21, 2004 - 4:50pm
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Project No. 38486833
 Former BP Service Station #11270
 3255 Mecartney Road
 Alameda, California

SITE MAP

FIGURE
 2

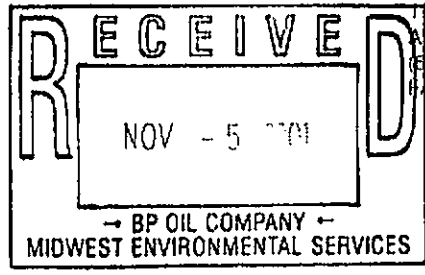
ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
31 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 31, 2001
StID # 1771/RO0000511



BP Oil Company
Mr. Scott Hooten
Bld. 13, Suite N
295 SW 41st St.
Renton, WA 98055

**SUBJECT: INTENT TO MAKE A DETERMINATION THAT NO FURTHER ACTION IS REQUIRED
OR ISSUE A CLOSURE LETTER FOR 3255 McCartney Rd., Alameda, CA 94501**

Dear Mr. Hooten:

This letter is to inform you that Alameda County Environmental Protection (LOP) intends to make a determination that no further action is required at the above site or to issue a closure letter. Please notify this agency of any input and recommendations you may have on these proposed actions within 20 days of the date of this letter.

In accordance with section 25297.15 of Ch. 6.7 of the Health & Safety Code, you must provide certification to the local agency that all of the current record fee title owners have been informed of the proposed action. You may use the enclosed Example letter #3 as a guide. Please provide this certification to this office within 20 days of the date of this letter.

If you have any questions about this, please contact me at (510) 567-6765.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

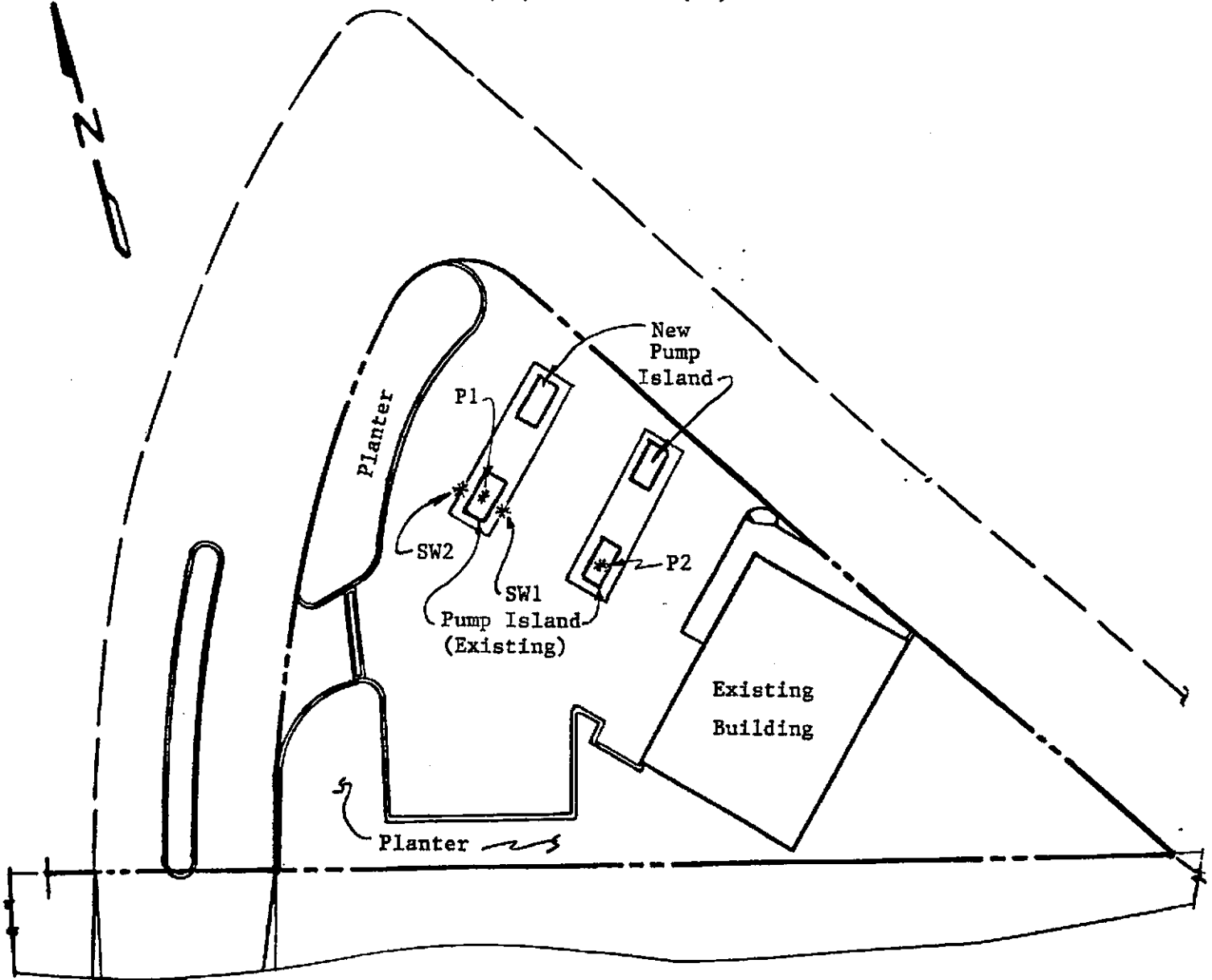
Enclosure (sample letter #3)

c: B.Chan,files



KAPREALIAN ENGINEERING, INC.
Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



SITE PLAN
Figure 1



LEGEND

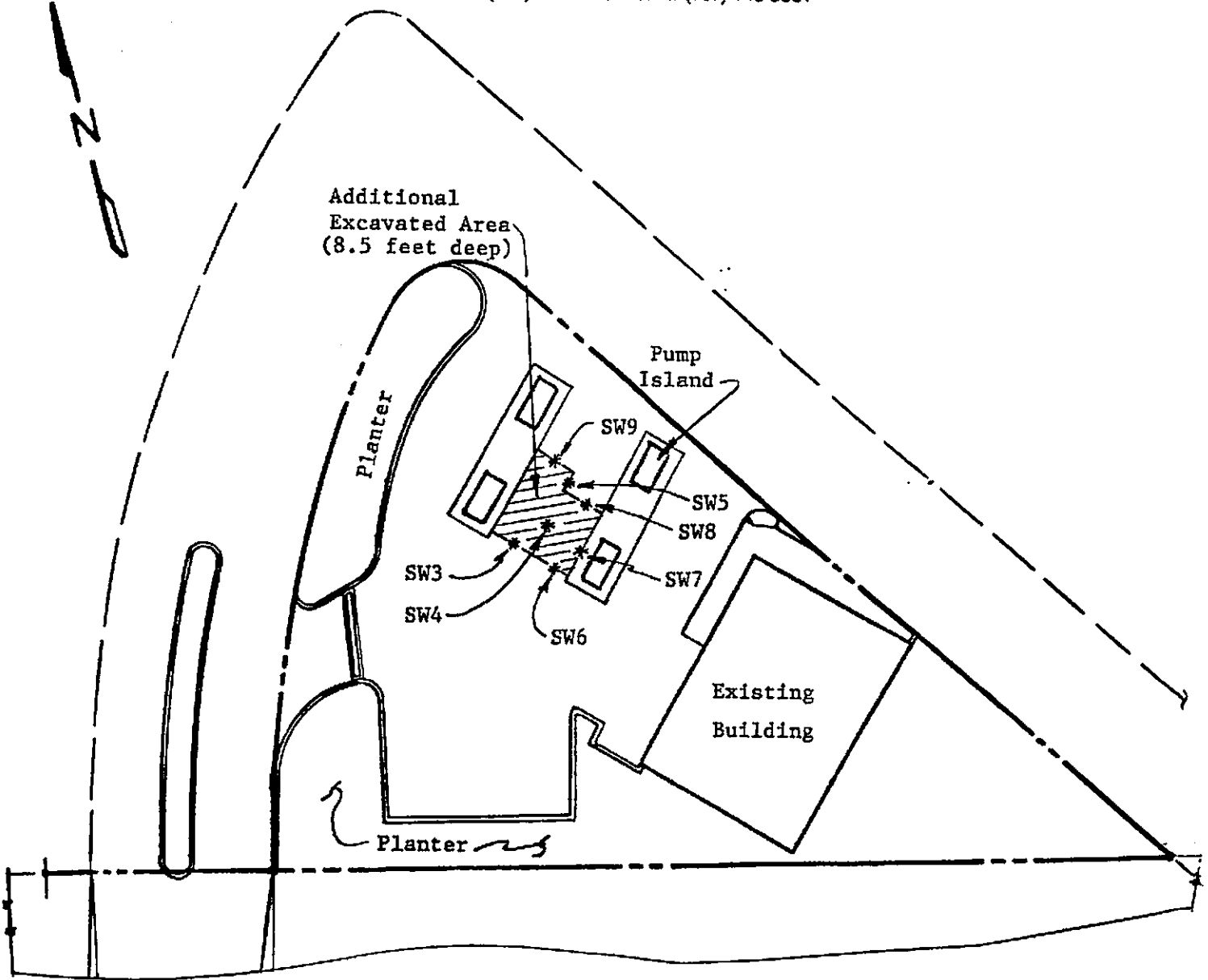
* Soil Sample Point Location

BP Service Station
3255 McCartney Road
Alameda, California

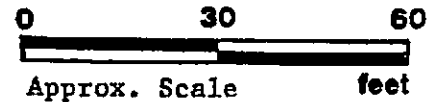


KAPREALIAN ENGINEERING, INC.
Consulting Engineers

P.O. BOX 996 • BENICIA, CA 94510
(707) 746-6915 • (707) 746-6916 • FAX: (707) 746-5581



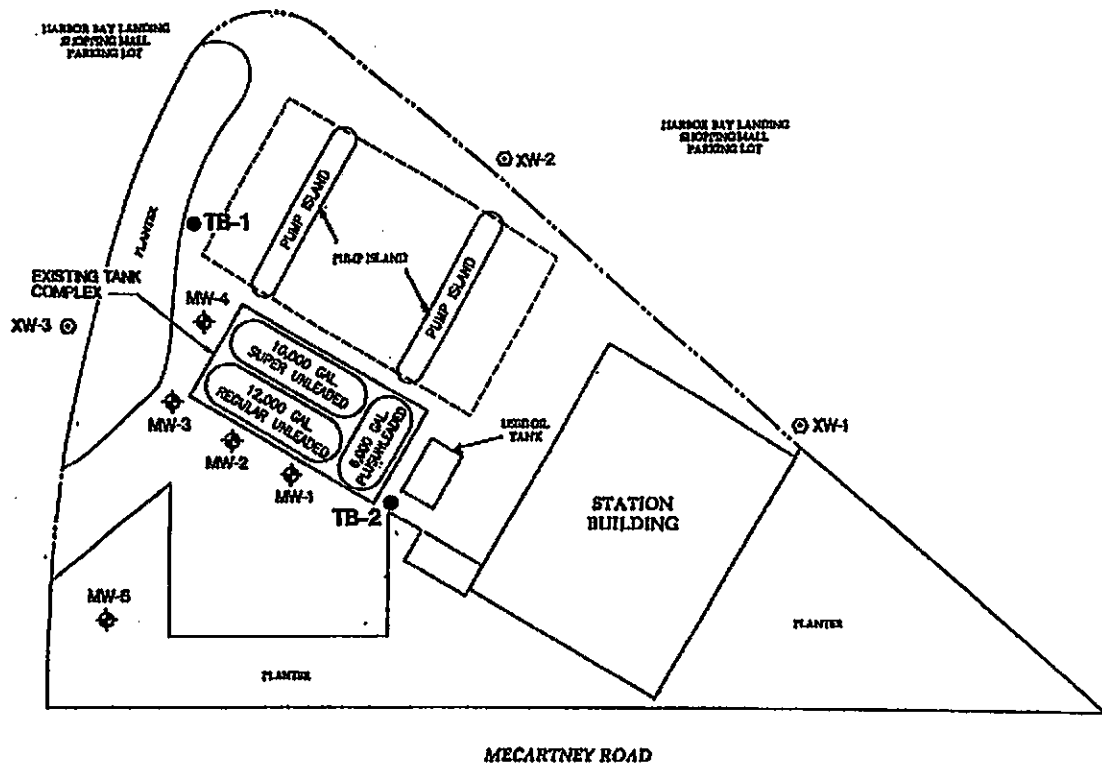
SITE PLAN
Figure 2



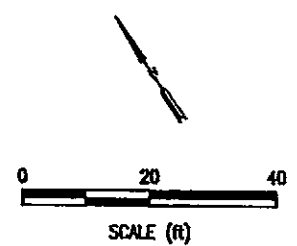
LEGEND

* Soil Sample Point Location

BP Service Station
3255 McCartney Road
Alameda, California



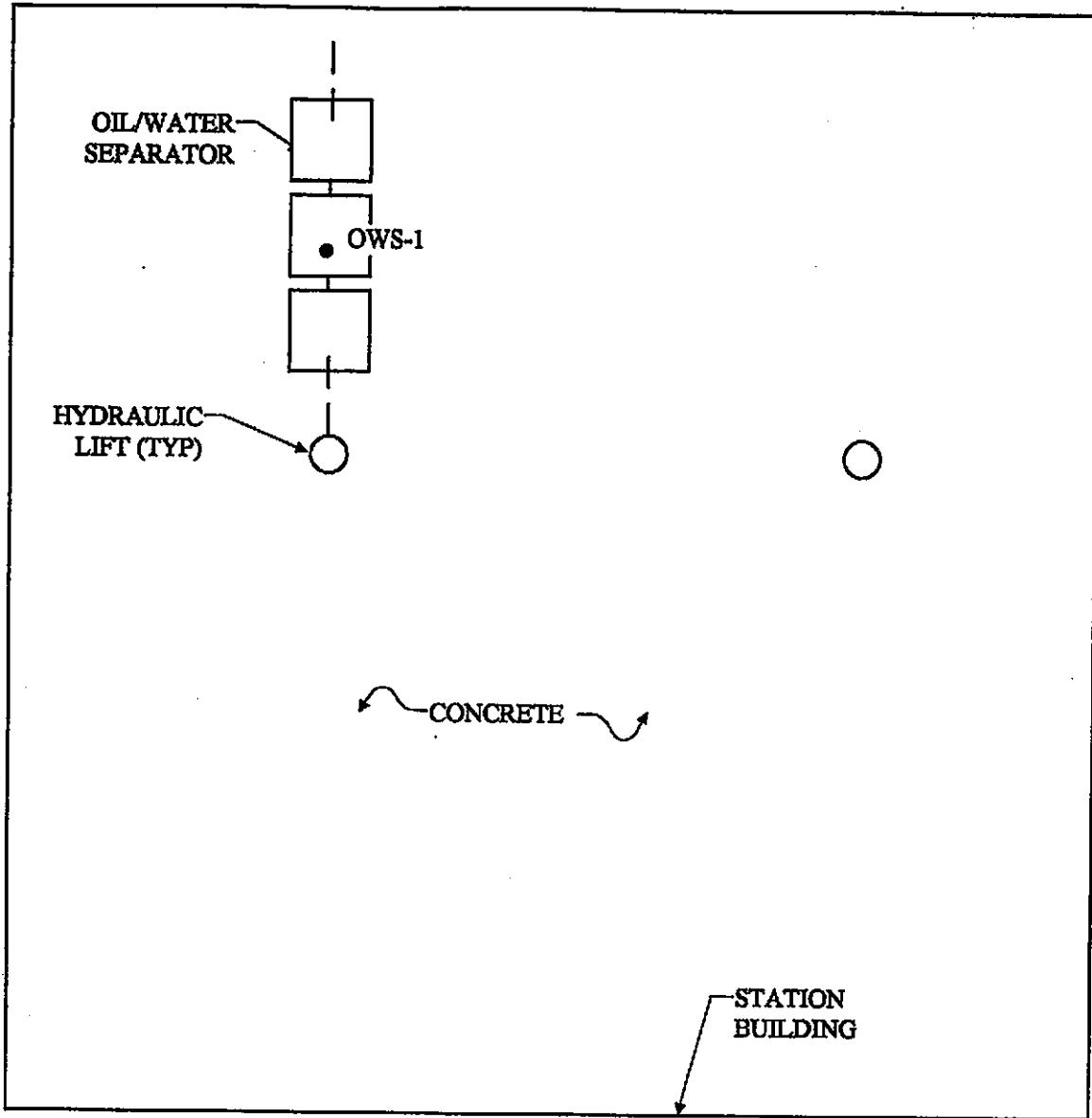
- LEGEND:**
- MW-1 ◊ MONITORING WELL
 - XW-1 ⊗ SHOPPING MALL MONITORING WELL
 - TB-1 ● TOSCO BORING LOCATION



SOURCE: HETI (APRIL 21, 1994)

DATE 12-12-94
 DWN. MLP
 REV. _____
 APPR. _____
 PROJECT NO. _____
 0952-140.03

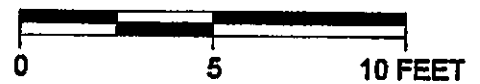
Figure A-1
 TOSCO #11270
 3255 MECARTNEY ROAD
 ALAMEDA, CALIFORNIA
 SITE PLAN



LEGEND

- OWS-1 ● SOIL SAMPLE LOCATION AND DESIGNATION

SCALE



304012/Sitemap5.vsd

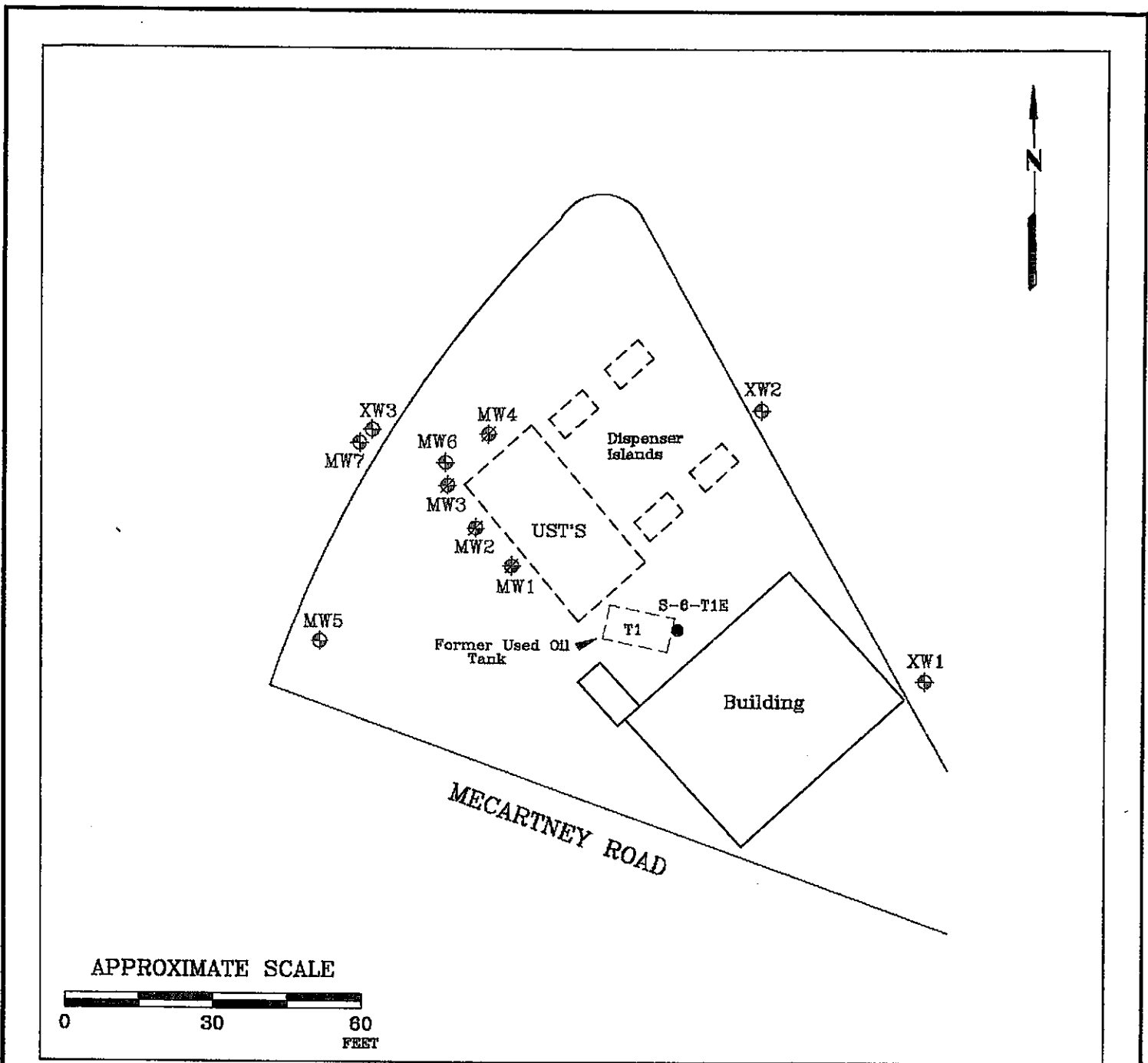


PACIFIC
ENVIRONMENTAL
GROUP, INC.

TOSCO SERVICE STATION 11270
3255 McCartney Road
Oakland, California

SITE MAP

FIGURE:
1
PROJECT:
304-012.1A



FN 23330003

EXPLANATION

- MW7 Groundwater Monitoring Well
- XW3 Groundwater Monitoring Well
- MW4 Destroyed Groundwater Monitoring Well
- Soil Sample Location
- S-6-T1E Tank Number
Depth
Soil Sample

SOURCE:
Modified from a map
provided by
TOSCO



GENERALIZED SITE PLAN

TOSCO BP SERVICE STATION 11270
3255 Mecartney Road
Alameda, California

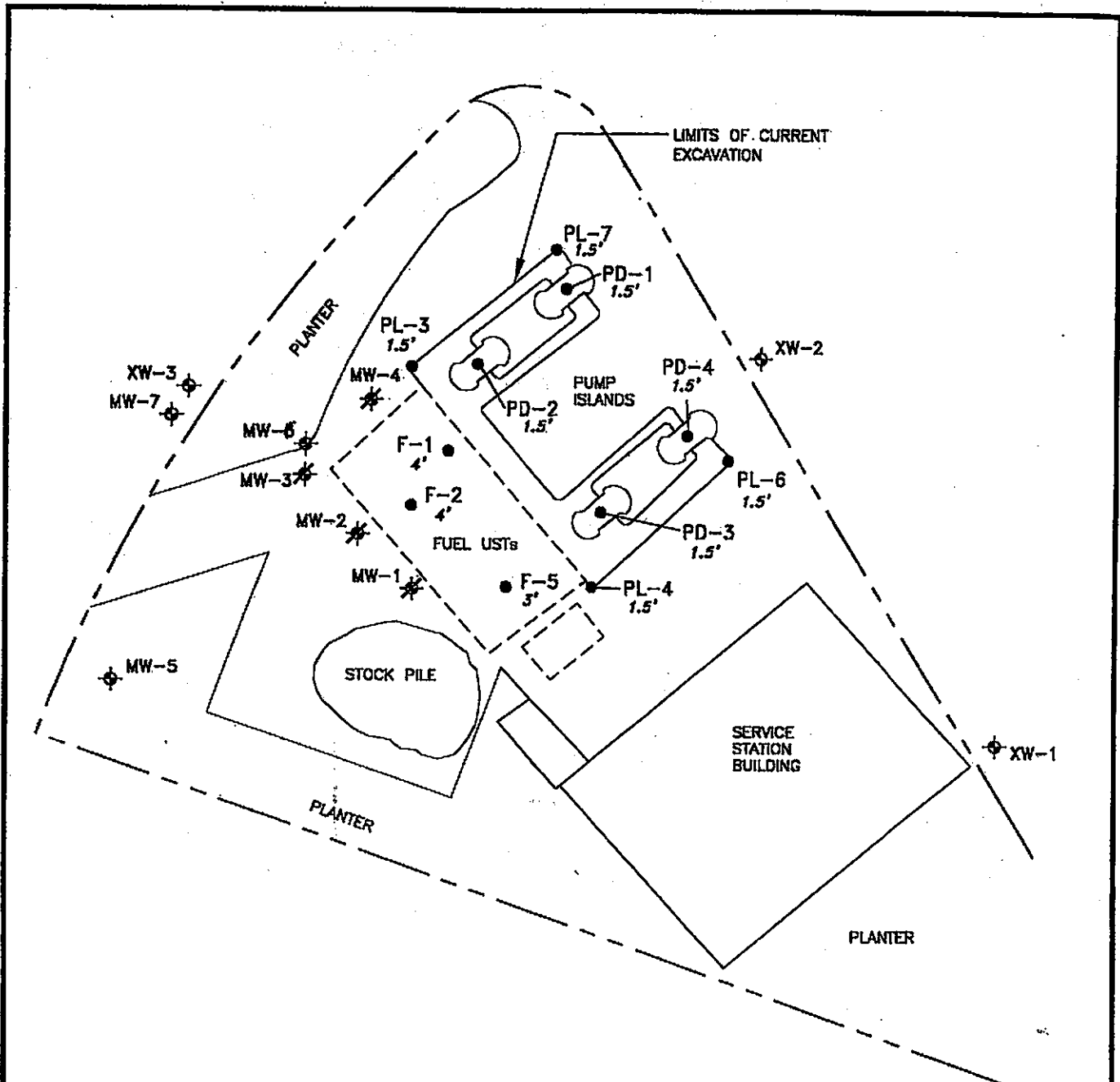
PROJECT NO.

2333

PLATE

2

Oct. 27, 1995



LEGEND

- ⊕ MW-6 GROUNDWATER MONITORING WELL
- * MW-2 ABANDONED GROUNDWATER MONITORING WELL
- APPROXIMATE PROPERTY LINE
- F-2 SOIL SAMPLING LOCATION AND DEPTH (FEET bgs)



NORTH



RE:\ANALYSIS\11270-TOSCO.DWG 8/22/00

SECOR
International Incorporated

DRAWN	JCO
APPR	RP
DATE	21 AUG 00
JOB NO.	006.03898.602

FIGURE 2
TOSCO (FORMER BP) SERVICE STATION #11270
3255 MECARTNEY ROAD
ALAMEDA, CALIFORNIA
**SITE PLAN WITH SOIL SAMPLING
LOCATIONS - AUGUST 7, 2000**

KEI-J90-0514.R1
July 16, 1990

TABLE 1

SUMMARY OF LABORATORY ANALYSES
SOIL

(Samples collected on May 22 & 30, and June 4, 1990)

<u>Sample</u>	<u>Depth (feet)</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>Ethyl- benzene</u>	<u>Total Lead</u>
SW1	4.5	2,000	18	56	270	39	6.5
SW2	4.5	8.0	0.31	0.084	1.2	0.26	1.7
SW3	8.0	860	5	2.8	13	7.5	5.7
SW4	4.5	1.0	0.0090	0.017	0.030	0.0099	0.71
SW5	4.5	15	0.035	0.26	0.49	0.14	2.1
SW6	4.5	1.5	0.0079	0.0052	0.069	0.023	2.9
SW7*	4.5	ND	0.034	0.0073	0.076	0.042	36
SW8	4.5	ND	0.010	0.0098	0.035	0.016	5.8
SW9	4.5	ND	0.024	ND	0.026	0.020	11
P1	4.5	6,900	70	260	700	120	0.91
P1(8)	8.0	7.0	1.0	0.025	0.47	0.19	1.7
P2	4.5	ND	0.0058	0.0050	0.023	0.010	1.6
Detection Limits		1.0	0.0050	0.0050	0.0050	0.0050	0.25

* Organic lead was non-detectable.

ND = Non-detectable.

Results are in parts per million (ppm), unless otherwise indicated.

Table A-1

Site Number 11270
3255 McCartney Road, Alameda, California

Soil Sample Results of Analyses (ppm)

Sample Number	Depth (feet)	Date Collected	California DHS LUFT Method TPH-G	California DHS LUFT Method Hydrocarbon Scan		BTEX EPA Method 5030/8020			
			TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes
TB1-S,2.5-3	2.5-3	10/26/94	nd	nd	nd	nd	nd	nd	nd
TB1-S,5.5-6	5.5-6	10/26/94	nd	nd	nd	nd	nd	nd	nd
TB2-S,2.5-3	2.5-3	10/26/94	nd	nd	nd	nd	nd	nd	nd
TB2-S,6.5-7	6.5-7	10/26/94	nd	nd	nd	nd	nd	nd	nd

Groundwater Sample Results of Analyses (ppb)

Sample Number	Depth to Water (feet)	Date Sampled	California DHS LUFT Method TPH-G	California DHS LUFT Method Hydrocarbon Scan		BTEX EPA Method 5030/8020			
			TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethylbenzene	Total Xylenes
TB1-W-11.5	11.5	10/26/94	1,500	nd	nd	nd	nd	nd	nd
TB2-W-11.5	11.5	10/26/94	310	nd	nd	nd	1	nd	1

NOTE: TPH-G = Total petroleum hydrocarbons as gasoline.
 TPH-D = Total petroleum hydrocarbons as diesel.
 TPH-O = Total petroleum hydrocarbons as oil.
 nd = Not detected at or above method reporting limit.
 n/a = Not applicable.
 — = Not analyzed.

TW = Tosco well.
 TB = Tosco boring.
 TD = Tosco dispenser soil sample.
 THP = Tosco HydroPunch.
 SGP = Soil gas probe.
 + = Raised method reporting limits (see laboratory report in Attachment D).

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS

BP Service Station No. 11270
3255 Mecartney Road
Alameda, California

Sample No.	Date	TPHd (µg/kg)	TPHg (µg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)
MW-5-5'	6/17/93	11,000 (1)	ND<1000 (2)	ND<5.0 (3)	ND<5.0 (3)	ND<5.0 (3)	ND<5.0 (3)
MW-6-5'	1/19/95	480,000	89,000	ND<50	210	630	4,800
MW-7-5'	1/18/95	110,000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0

Notes:

- Sample No. : Soil boring designation and sample collection depth.
- Date : Sample collection date.
- (1) TPHd : Total petroleum hydrocarbons as diesel by EPA Method 8015 (modified).
- (2) TPHg : Total petroleum hydrocarbons as gasoline by EPA Method 8015 (modified).
- (3) BTEX : Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020 (modified).
- µg/kg : Micrograms per kilogram.
- TPHd : Total petroleum hydrocarbons as diesel by California Leaking Underground Fuel Tank (CA LUFT) Manual protocols.
- TPHg : Total petroleum hydrocarbons as gasoline by California Leaking Underground Fuel Tank (CA LUFT) Manual protocols.
- BTEX : Benzene, toluene, ethylbenzene and total xylenes by California Leaking Underground Fuel Tank (CA LUFT) Manual protocols.
- ND : Not detected in concentrations exceeding the indicated laboratory method detection limit.

Table 1
Soil Analytical Data
Oil/Water Separator
Total Petroleum Hydrocarbons
 (TPH as Gasoline, BTEX Compounds, TPH as Diesel, TRPH, and HVOCs)

Tosco Service Station 11270
 3255 McCartney Road
 Alameda, California

Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	TPH as Diesel (ppm)	TRPH (ppm)	HVOCs (ppb)
OWS-1, 0.5'	0.5	12/12/96	ND	ND	ND	ND	ND	ND	49	ND
OWS-1, 2'	2	12/12/96	ND	ND	ND	ND	ND	ND	13	ND

TRPH = Total recoverable petroleum hydrocarbons
 HVOCs = Halogenated volatile organic compounds
 ppm = Parts per million
 ND = Not detected at a concentration above the laboratory method reporting limit.

TABLE 1 - SUMMARY OF RESULTS OF DISPENSER SAMPLING
 BP OIL COMPANY SERVICE STATION NO. 11270
 3255 MECARTNEY ROAD, ALAMEDA, CALIFORNIA

ALISTO PROJECT NO. 10-206

SAMPLE ID	DATE OF SAMPLING	TPH-G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	MTBE (mg/kg)	LAB
S-1	08/15/97	ND<0.1	ND<0.001	0.085	ND<0.002	0.0047	ND<0.1	SPL
S-2	08/15/97	ND<0.1	ND<0.001	0.047	ND<0.002	ND<0.002	ND<0.1	SPL
S-3	08/15/97	ND<0.1	ND<0.001	0.058	ND<0.002	ND<0.002	ND<0.1	SPL
S-4	08/15/97	ND<0.1	ND<0.001	0.049	ND<0.002	ND<0.002	ND<0.1	SPL

ABBREVIATIONS:

TPH-G Total petroleum hydrocarbons as gasoline
 B Benzene
 T Toluene
 E Ethylbenzene
 X Total xylenes
 MTBE Methyl tert butyl ether
 mg/kg Milligrams per kilogram
 ND Not detected above reported detection limit
 SPL Southern Petroleum Laboratories

F:\02\10-206\206-5-S.WQ2

TABLE 1
SOIL SAMPLE ANALYSIS RESULTS

Tosco BP Service Station 11270
3255 Mecartney Road
Alameda, California
(Page 1 of 1)

Sample #	Depth (ft bgs)	Date	TEPHd	TPPHg	B	T	E	X	TRPH	Total Lead	SVOC's	HVOC's
S-6-T1E	6.0	7/9/98	ND*	ND	ND	ND	ND	ND	ND	ND**	ND	ND

Notes:

Depths are in feet below ground surface (ft bgs)

Soil results (S) in parts per million (ppm)

- TEPHd = Total extractable petroleum hydrocarbons as diesel analyzed using modified EPA method 8015.
- TPPHg = Total purgeable petroleum hydrocarbons as gasoline analyzed using modified EPA method 8015.
- BTEX = Benzene, Toluene, Ethylbenzene, and total Xylenes analyzed using EPA method 8020.
- TRPH = Total recoverable petroleum hydrocarbons analyzed using EPA method 5520 E&F.
- Total Lead = Total threshold limit concentration of lead analyzed using EPA method 6010.
- SVOC's = Semi-volatile organic compounds analyzed using EPA method 8270.
- HVOC's = Halogenated volatile organic compounds analyzed using EPA method 8010
- ND = Not detected
- * = TEPHd analyses completed after 14 - day hold time.
- ** = Additional Analyses: Cadmium ND; Chromium 22 ppm; Nickel 8.9 ppm; Zinc 16 ppm analyzed using EPA method 6010.

Table 1
Soil Analytical Data
Product Lines and Dispensers

Tosco (Former BP) Service Station # 11270
 3255 McCartney Road
 Alameda, California

Sample Name	Sample Depth (feet bgs)	Date Sampled	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethly-benzene (mg/kg)	Xylenes (mg/kg)	MTBE 8020/8260 (mg/kg)	Total Lead (mg/kg)
PD-1-2'	2	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
PD-2-1.5'	1.5	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
PD-3-1.5'	1.5	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
PD-4-1.5'	1.5	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	0.0582/ND<0.05	ND<10
PL-3-1.5'	1.5	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
PL-6-1.5'	1.5	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
PL-7-1.5'	1.5	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
F-1-4'	4	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
F-2-4'	4	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10
F-5-3'	3	08/07/00	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.05/NA	ND<10

TPH = Total petroleum hydrocarbons

Sample depth in feet below ground surface

MTBE = Methyl tertiary butyl ether

ND = Not detected above specified laboratory reporting limits

NA = Not analyzed

mg/kg = milligrams per kilogram

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (ug/l)	DO (ppm)	LAB
MW-1	(c) 10/29/92	7.49	7.28	--	0.21	--	--	--	--	--	--	--	--	--	--
MW-1	(c) 06/21/93	7.49	5.40	--	2.09	--	--	--	--	--	--	--	--	--	--
MW-1	04/05/94	7.49	5.64	--	1.85	1700	--	20	1.1	3.9	7.6	--	--	--	PACE
MW-1	07/28/94	7.49	6.22	--	1.27	--	--	--	--	--	--	--	--	--	--
MW-1	10/26/94	7.49	6.40	--	1.09	--	--	--	--	--	--	--	--	--	--
MW-1	(d) 02/05/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	10/29/92	7.07	6.84	--	0.23	2500	3900	140	ND<10	65	22	--	--	--	--
MW-2	06/21/93	7.07	5.49	--	1.58	720	770	12	1.5	11	12	--	--	--	--
MW-2	04/05/94	7.07	5.40	--	1.67	420	1300	ND<0.5	ND<0.5	ND<0.5	4	4500 (e)	--	1.8	PACE
MW-2	07/28/94	7.07	5.97	--	1.10	--	--	--	--	--	--	--	--	--	--
MW-2	10/26/94	7.07	6.10	--	0.97	--	--	--	--	--	--	--	--	--	--
MW-2	(d) 02/05/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	(c) 10/29/92	7.08	7.14	--	-0.06	--	--	--	--	--	--	--	--	--	--
MW-3	(c) 06/21/93	7.08	5.84	--	1.24	--	--	--	--	--	--	--	--	--	--
MW-3	04/05/94	7.08	5.83	--	1.25	990	4300	3.2	ND<0.5	ND<0.5	1.3	790 (e)	--	--	PACE
MW-3	07/28/94	7.08	6.32	--	0.76	--	--	--	--	--	--	--	--	--	--
MW-3	10/26/94	7.08	6.42	--	0.66	--	--	--	--	--	--	--	--	--	--
MW-3	(d) 02/05/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	10/29/92	7.13	6.90	--	0.23	2600	--	250	2.5	74	6.6	--	--	--	--
MW-4	06/21/93	7.13	5.54	--	1.59	1400	1100	24	2.9	2.6	7.9	--	--	--	--
MW-4	04/05/94	7.13	5.46	--	1.67	930	940	33	0.8	ND<0.5	2.8	8700 (e)	--	2.7	PACE
MW-4	07/28/94	7.13	6.02	--	1.11	2400	1400	19	1.8	0.5	8	--	--	6.7	PACE
QC-1	(f) 07/28/94	--	--	--	--	2300	--	19	1.7	0.5	7.4	--	--	--	--
MW-4	10/26/94	7.13	6.13	--	1.00	--	--	--	--	--	--	--	--	--	--
MW-4	(d) 02/05/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (ug/l)	DO (ppm)	LAB
MW-5	06/21/93	8.36	7.44	---	0.92	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---
MW-5	04/05/94	8.36	7.42	---	0.94	ND<50	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	2.5	PACE
QC-1 (f)	04/05/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-5	07/28/94	8.36	7.88	---	0.48	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	7.4	PACE
MW-5	10/26/94	8.36	7.92	---	0.44	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	5.5	PACE
QC-1 (f)	10/26/94	---	---	---	---	ND<50	---	ND<0.5	0.5	ND<0.5	ND<0.5	---	---	---	PACE
MW-5	02/05/95	8.36	7.83	---	0.53	ND<50	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	---	ATI
QC-1 (f)	02/05/95	---	---	---	---	ND<50	---	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	---	ATI
MW-5	05/05/95	8.36	9.00	---	-0.64	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	3.1	ATI
MW-5	07/19/95	8.36	9.03	---	-0.67	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	14700	4.6	ATI
MW-5	10/12/95	8.36	9.15	---	-0.79	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	8490	4.3	ATI
MW-5	01/08/96	8.36	9.04	---	-0.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	10000	4.9	ATI
MW-5	09/11/97	8.36	8.90	---	-0.54	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	4	SPL
MW-5	01/27/98	8.36	8.27	---	0.09	---	---	---	---	---	---	---	---	---	---
MW-5	04/19/98	8.36	8.60	---	-0.24	---	---	---	---	---	---	---	---	---	---
MW-5	09/27/00	8.36	8.68	---	-0.32	---	---	---	---	---	---	---	---	---	---
MW-5	03/21/01	8.36	8.13	---	0.23	---	---	---	---	---	---	---	---	---	---
MW-5 (k)	09/18/01	8.36	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	02/05/95	6.88	6.39	---	0.49	1000	1000	7.6	19	9.1	96	---	(g) ---	5	ATI
MW-6	05/05/95	6.88	6.85	---	0.03	2300	---	49	9	130	46	---	---	3.3	ATI
QC-1 (f)	05/05/95	---	---	---	---	2400	---	49	9.2	140	48	---	---	---	ATI
MW-6	07/19/95	6.88	7.13	---	-0.25	1500	---	84	3.3	28	24	---	(g) 818	3.7	ATI
QC-1 (f)	07/19/95	---	---	---	---	1500	---	89	3.8	30	26	---	(g) ---	---	ATI
MW-6	10/12/95	6.88	7.35	---	-0.47	1800	---	38	13	38	86	2500	868	4.1	ATI
QC-1 (f)	10/12/95	---	---	---	---	1100	---	33	7	18	44	2200	---	---	ATI
MW-6	01/08/96	6.88	7.04	---	-0.16	1300	---	31	4.7	60	53	170	474	4.2	ATI
QC-1 (f)	01/08/96	---	---	---	---	1000	---	27	4	49	44	150	---	---	ATI
MW-6	09/11/97	6.88	7.29	---	-0.41	ND<250	---	8.5	ND<5.0	11	6	1400	---	3.5	SPL
QC-1 (f)	09/11/97	---	---	---	---	210	---	8.7	ND<5.0	14	8	1400	---	---	SPL
MW-6	01/27/98	6.88	6.20	---	0.68	47000	---	350	150	360	690	38000	---	4.6	SPL
QC-1 (f)	01/27/98	---	---	---	---	51000	---	290	120	300	580	35000	---	---	SPL
MW-6	04/19/98	6.88	6.64	---	0.24	36000	---	40	510	140	10500	660	---	4	SPL
QC-1 (f)	04/19/98	---	---	---	---	24000	---	20	360	81	7100	480	---	---	SPL
MW-6	09/27/00	6.88	6.99	---	-0.11	1400	---	6.9	19	110	53	33/32 (i)	---	---	PACE
MW-6	03/21/01	6.88	6.36	---	0.52	330	---	2.2	1.42	50.4	10.2	56.3	---	---	PACE
MW-6	09/18/01	6.88	7.11	---	-0.23	290	---	0.957	ND<5.0	11.2	6.83	50.7	---	---	PACE

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (ug/l)	DO (ppm)	LAB
MW-7	02/05/95	6.62	7.62	--	-1.00	280	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	-- (g)	--	5.1	ATI
MW-7	05/05/95	6.62	7.64	--	-1.02	290	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	--	3.6	ATI
MW-7	07/19/95	6.62	7.70	--	-1.08	150	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	-- (g)	12100	4.6	ATI
MW-7	10/12/95	6.62	7.88	--	-1.26	110	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	390	14000	4.7	ATI
MW-7	01/08/96	6.62	7.66	--	-1.04	90	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	300	12060	4.9	ATI
MW-7	09/11/97	6.62	7.78	--	-1.16	ND<50	--	ND<2.5	ND<5.0	ND<5.0	ND<5.0	63	--	3.8	SPL
MW-7	01/27/98	6.62	7.30	--	-0.68	1400	--	7.7	ND<1.0	ND<1.0	ND<1.0	920	--	4.4	SPL
MW-7	04/19/98	6.62	7.52	--	-0.90	3500	--	15	7.7	11	19.3	3600	--	4.7	SPL
MW-7	09/27/00	6.62	7.71	--	-1.09	ND<50	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	71/70	-- (i)	--	PACE
MW-7 (j)	03/21/01	6.62	7.62	--	-1.00	--	--	--	--	--	--	--	--	--	--
MW-7	03/29/01	6.62	7.57	--	-0.95	80	--	ND<0.5	ND<0.5	ND<0.5	ND<1.5	88.2	--	--	PACE
MW-7	09/18/01	6.62	7.74	--	-1.12	ND<250	--	ND<2.5	ND<2.5	ND<2.5	ND<7.5	36.6	--	--	PACE
XW-1	06/21/93	--	--	--	--	--	--	--	--	--	--	--	--	--	--
XW-1	04/05/94	--	5.36	--	--	ND<50	70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	3	PACE
XW-1	07/28/94	--	5.92	--	--	--	--	--	--	--	--	--	--	--	PACE
XW-1	10/26/94	--	6.05	--	--	--	--	--	--	--	--	--	--	--	--
XW-1	02/05/95	7.49	5.82	--	1.67	ND<50	ND<500	ND<0.25	ND<0.25	ND<0.25	ND<0.50	--	--	4.9	ATI
XW-1	05/05/95	7.49	5.57	--	1.92	--	--	--	--	--	--	--	--	--	--
XW-1	07/19/95	7.49	6.12	--	1.37	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	--	1680	4.3	ATI
XW-1	10/12/95	7.49	6.82	--	0.67	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	1150	3.8	ATI
XW-1	01/08/96	7.49	6.11	--	1.38	ND<50	--	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	1300	4.7	ATI
XW-1	09/11/97	7.49	6.57	--	0.92	ND<50	--	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	--	3.3	SPL
XW-1	01/27/98	7.49	5.27	--	2.22	--	--	--	--	--	--	--	--	--	--
XW-1	04/19/98	7.49	5.24	--	2.25	--	--	--	--	--	--	--	--	--	--
XW-1	09/27/00	7.49	6.13	--	1.36	--	--	--	--	--	--	--	--	--	--
XW-1	03/21/01	7.49	5.97	--	1.52	--	--	--	--	--	--	--	--	--	--
XW-1	09/18/01	7.49	6.59	--	0.90	--	--	--	--	--	--	--	--	--	--

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TDS (ug/l)	DO (ppm)	LAB
XW-2	06/21/93	7.48	5.89	---	1.59	---	---	---	---	---	---	---	---	---	---
XW-2	04/05/94	7.48	5.77	---	1.71	ND<50	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	3	PACE
XW-2	07/28/94	7.48	6.25	---	1.23	---	---	---	---	---	---	---	---	---	PACE
XW-2	10/26/94	7.48	6.39	---	1.09	---	---	---	---	---	---	---	---	---	---
XW-2	02/05/95	7.48	5.62	---	1.86	ND<50	ND<500	ND<0.25	0.38	ND<0.25	ND<0.50	---	---	5.2	ATI
XW-2	05/05/95	7.48	5.66	---	1.82	---	---	---	---	---	---	---	---	---	---
XW-2	07/19/95	7.48	6.8	---	0.68	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	4750	3.9	ATI
XW-2	10/12/95	7.48	7.21	---	0.27	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	3630	4.3	ATI
XW-2	01/08/96	7.48	6.79	---	0.69	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	3440	4.2	ATI
XW-2	09/11/97	7.48	6.86	---	0.62	ND<50	---	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<10	---	3.6	SPL
XW-2	01/27/98	7.48	5.88	---	1.60	---	---	---	---	---	---	---	---	---	---
XW-2	04/19/98	7.48	5.42	---	2.06	---	---	---	---	---	---	---	---	---	---
XW-2	09/27/00	7.48	6.86	---	0.62	---	---	---	---	---	---	---	---	---	---
XW-2	03/21/01	7.48	6.60	---	0.88	---	---	---	---	---	---	---	---	---	---
XW-2	09/18/01	7.48	7.15	---	0.33	---	---	---	---	---	---	---	---	---	---
XW-3	06/21/93	6.84	5.85	---	0.99	---	---	---	---	---	---	---	---	---	---
XW-3	04/05/94	6.84	5.85	---	0.99	ND<50	150	ND<0.5	0.7	ND<0.5	ND<0.5	---	---	3.1	PACE
XW-3	07/28/94	6.84	6.28	---	0.56	---	---	---	---	---	---	---	---	---	PACE
XW-3	10/26/94	6.84	6.4	---	0.44	---	---	---	---	---	---	---	---	---	---
XW-3	02/05/95	6.84	7.23	---	-0.39	280	ND<500	ND<0.50	ND<0.50	0.63	ND<1.0	(g)	---	4.9	ATI
XW-3	05/05/95	6.84	7.43	---	-0.59	---	---	---	---	---	---	---	---	---	---
XW-3	07/19/95	6.84	7.6	---	-0.76	400	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	10400	4.3	ATI
XW-3	10/12/95	6.84	7.74	---	-0.90	130	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	480	(e) 8430	4.7	ATI
XW-3	01/08/96	6.84	7.58	---	-0.74	320	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	1100	10000	4.4	ATI
XW-3	01/27/98	6.84	7.01	---	-0.17	1200	---	2.8	ND<1.0	ND<1.0	ND<1.0	990	---	4.3	SPL
XW-3	04/19/98	6.84	7.28	---	-0.44	4500	---	ND<2.5	ND<5.0	ND<5.0	ND<5.0	4800	---	4.3	SPL
XW-3	09/27/00	6.84	7.59	---	-0.75	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35/38	(i)	---	PACE
XW-3	03/21/01	6.84	7.35	---	-0.51	ND<250	---	ND<2.5	ND<2.5	ND<2.5	ND<7.5	61.7	---	---	PACE
XW-3	09/18/01	6.84	7.70	---	-0.86	ND<250	---	ND<2.5	ND<2.5	ND<2.5	ND<7.5	23.4	---	---	PACE
QC-2 (h)	04/05/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (h)	07/28/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (h)	10/26/94	---	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	PACE
QC-2 (h)	02/05/95	---	---	---	---	ND<50	---	ND<0.25	ND<0.25	ND<0.25	ND<0.50	---	---	---	ATI
QC-2 (h)	05/05/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2 (h)	07/19/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	ATI
QC-2 (h)	10/12/95	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI
QC-2 (h)	01/08/96	---	---	---	---	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	ATI

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING

ADDITIONAL ANALYSES

Well ID	DATE OF SAMPLING/ MONITORING	TBA (ug/l)	DIPE (ug/l)	ETBE (ug/l)	TAME (ug/l)	LAB
MW-6	09/27/00	ND<10	ND<1.0	ND<1.0	6.2	PACE
MW-7	09/27/00	20	ND<1.0	ND<1.0	9.4	PACE
XW-3	09/27/00	ND<10	ND<1.0	ND<1.0	6.2	PACE

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
MTBE	Methyl tert butyl ether
TDS	Total dissolved solids
DO	Dissolved oxygen
ug/l	Micrograms per liter
mg/l	Milligrams per liter
ppm	Parts per million
—	Not analyzed/measured/applicable
ND	Not detected above reported detection limit
PACE	Pace, Inc.
ATI	Analytical Technologies, Inc.
SPL	Southern Petroleum Laboratories
DIPE	Di-Isopropyl Ether
ETBE	Ethyl t-Butyl Ether
TAME	t-Amyl Methyl Ether

NOTES:

Blaine Tech Services, Inc. began routine monitoring of this facility on September 27, 2000. All previous data provided by Alisto Engineering.

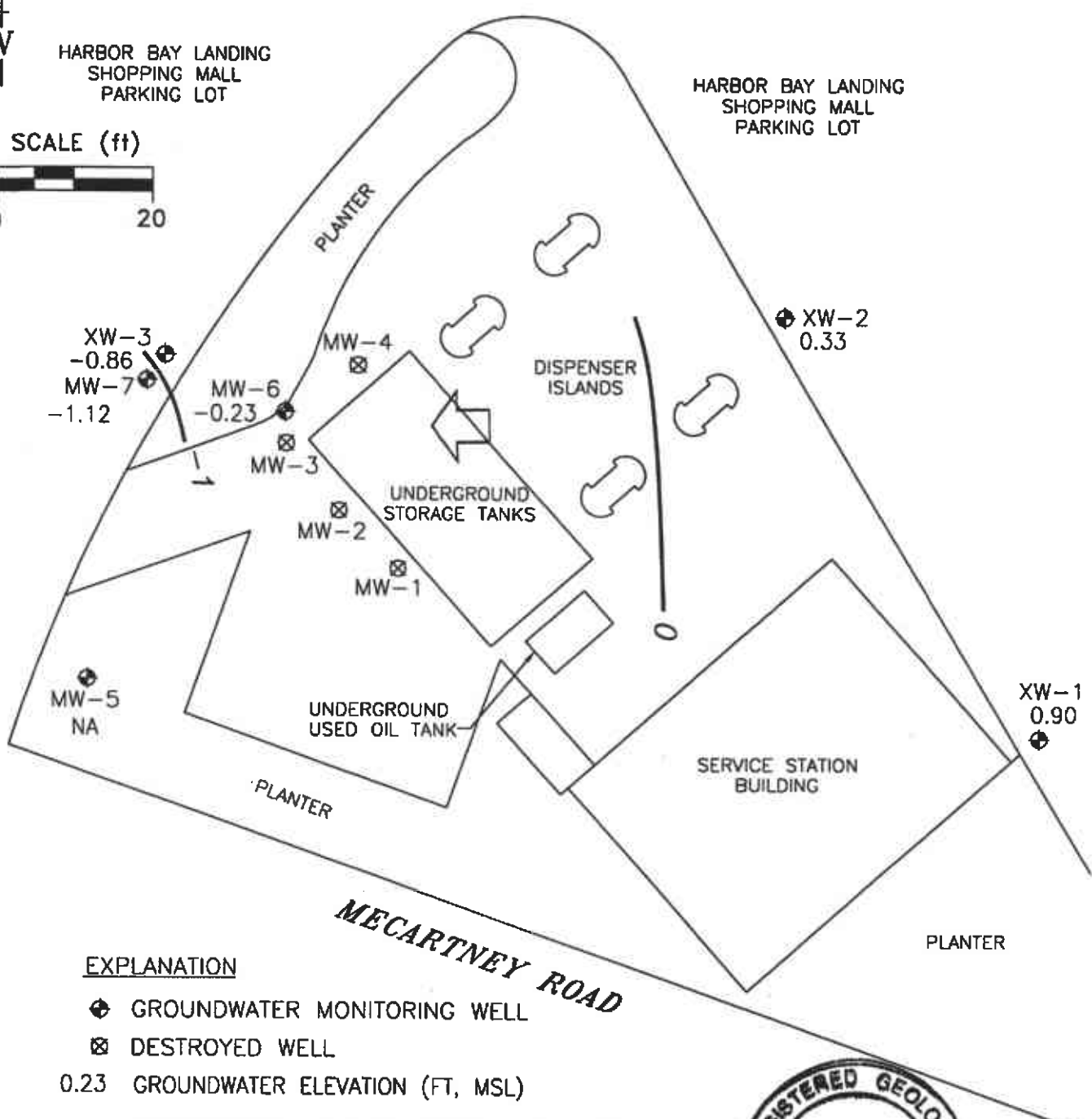
- (a) Casing elevations surveyed to nearest 0.01 foot relative to an arbitrary datum.
- (b) Groundwater elevations in feet above an arbitrary datum.
- (c) Not sampled due to inadequate recharge.
- (d) Wells destroyed by HETI on January 18 and 19, 1995.
- (e) A copy of the documentation for this data is included in Appendix C of Alisto report 10-206-04-001.
- (f) Blind duplicate.
- (g) MTBE peak present. See documentation for this data included in Appendix C of Alisto report 10-206-04-001.
- (h) Travel blank.
- (i) MTBE by 8020/8260.
- (j) Samples lost, resampled 3/29/01.
- (k) Unable to locate well.



HARBOR BAY LANDING
SHOPPING MALL
PARKING LOT

HARBOR BAY LANDING
SHOPPING MALL
PARKING LOT

SCALE (ft)



EXPLANATION

⊕ GROUNDWATER MONITORING WELL

⊗ DESTROYED WELL

0.23 GROUNDWATER ELEVATION (FT, MSL)

0 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)

↖ APPROXIMATE GROUNDWATER FLOW DIRECTION;
APPROXIMATE GRADIENT = 0.01



Ref. 11270bm2.dwg

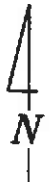
PREPARED BY

RRM
engineering contracting firm

**GROUNDWATER ELEVATION CONTOUR MAP,
SEPTEMBER 18, 2001**

**BP Oil Service Station No. 11270
3255 Mecartney Road
Alameda, California**

**FIGURE:
1
PROJECT:
DAC04**



HARBOR BAY LANDING
SHOPPING MALL
PARKING LOT

HARBOR BAY LANDING
SHOPPING MALL
PARKING LOT

SCALE (ft)



XW-3	
B	<2.5
T	<2.5
E	<2.5
X	<7.5
TPHg	<250
MTBE	23.4

XW-3
MW-7

MW-7	
B	<2.5
T	<2.5
E	<2.5
X	<7.5
TPHg	<250
MTBE	36.6

MW-6	
B	0.957
T	<5.0
E	11.2
X	6.83
TPHg	290
MTBE	50.7

PLANTER

MW-4

DISPENSER
ISLANDS

XW-2
NA

MW-6

MW-3

UNDERGROUND
STORAGE TANKS

MW-2

MW-1

MW-5
NA

UNDERGROUND
USED OIL TANK

SERVICE STATION
BUILDING

XW-1
NA

PLANTER

PLANTER

MECARTNEY ROAD

EXPLANATION

◆ GROUNDWATER MONITORING WELL

⊗ DESTROYED WELL

TPHg TOTAL PETROLEUM HYDROCARBON CALCULATED
AS GASOLINE IN PARTS PER BILLION (ppb)

B BENZENE, ppb

T TOLUENE, ppb

E ETHYLBENZENE, ppb

X XYLENE, ppb

MTBE METHYL-TERT-BUTYL-ETHER, ppb

NA DATA NOT AVAILABLE

Ref. 11270b.m2.dwg

PREPARED BY

RRM
engineering contracting firm

HYDROCARBON CONCENTRATION MAP,
SEPTEMBER 18, 2001

BP Oil Service Station No. 11270
3255 Mecartney Road
Alameda, California

FIGURE:
2

PROJECT:
DAC04

SITE/LOCATION 3255 Mecartney Road, Alameda, CA		BEGUN 6/17/93	BORING DIAMETER 10 Inches	ANGLE/BEARING 90 Degrees	BORING NO MW-5
DRILLING CONTRACTOR Bayland Drilling		COMPLETED 6/17/93	FIRST ENCOUNTERED WATER DEPTH 7.5 Feet		BOTTOM OF BORING 15 Feet
OPERATOR Adam Higuaro		LOGGED BY Tony Ramirez	STATIC WATER DEPTH/DATE 7.0 Feet		WELL NO. MW-5
DRILL MAKE & MODEL CME 75		SAMPLING METHOD California modified split spoon			BOTTOM OF WELL 15 Feet
WELL MATERIAL 4" SCH 40 PVC	SLOT SIZE 0.010"	FILTER PACK #2/16	WELL SEAL Neat cement over hydrated bentonite pellets		PLANNED USE Monitoring

BLOWS/ FOOT	PID FIELD HEADSPACE (ppm)	DEPTH	SAMPLE	WATER LEVEL	WELL CONSTR.	GRAPHIC LOG	MATERIAL CLASSIFICATION & PHYSICAL DESCRIPTION
		1					PEAT(Pt); dark brown; covered with tanbark; moist.
		2					Poorly graded SAND with Gravel (SP); tan; fine angular to sub-rounded sand; 35% fine to coarse, sub-angular to sub-rounded gravel; trace fines; damp.
		3					
	14.0	4					Poorly graded SAND with Gravel (SP); medium brown; fine angular to sub-rounded sand; 25% fine, sub-angular to sub-rounded gravel; trace fines; damp.
12		5					
		6					
		7					Silty SAND (SM); grey-brown; fine to coarse sub-angular to sub-rounded sand; 20% silt; moist.
		8					
		9					Same as above, but wet.
		10					
		11					
		12					Poorly graded GRAVEL with Sand (GP); grey-brown; fine to coarse sub-angular to sub-rounded gravel; 35% fine to coarse, angular to sub-rounded sand; wet.
		13					
		14					Lean CLAY with Sand; grey-brown; fine sub-angular to sub-rounded sand; 40% clay; wet.
		15					

**HYDR -
ENVIRONMENTAL
TECHNOLOGIES, INC.**

DATE: June 18, 1993

APPROVED BY: Owen C. Ratchye, P.E.

**SOIL BORING LOG AND
WELL CONSTRUCTION DIAGRAM
MW-5**

BP Service Station No. 11270
3255 Mecartney Road
Alameda, CA

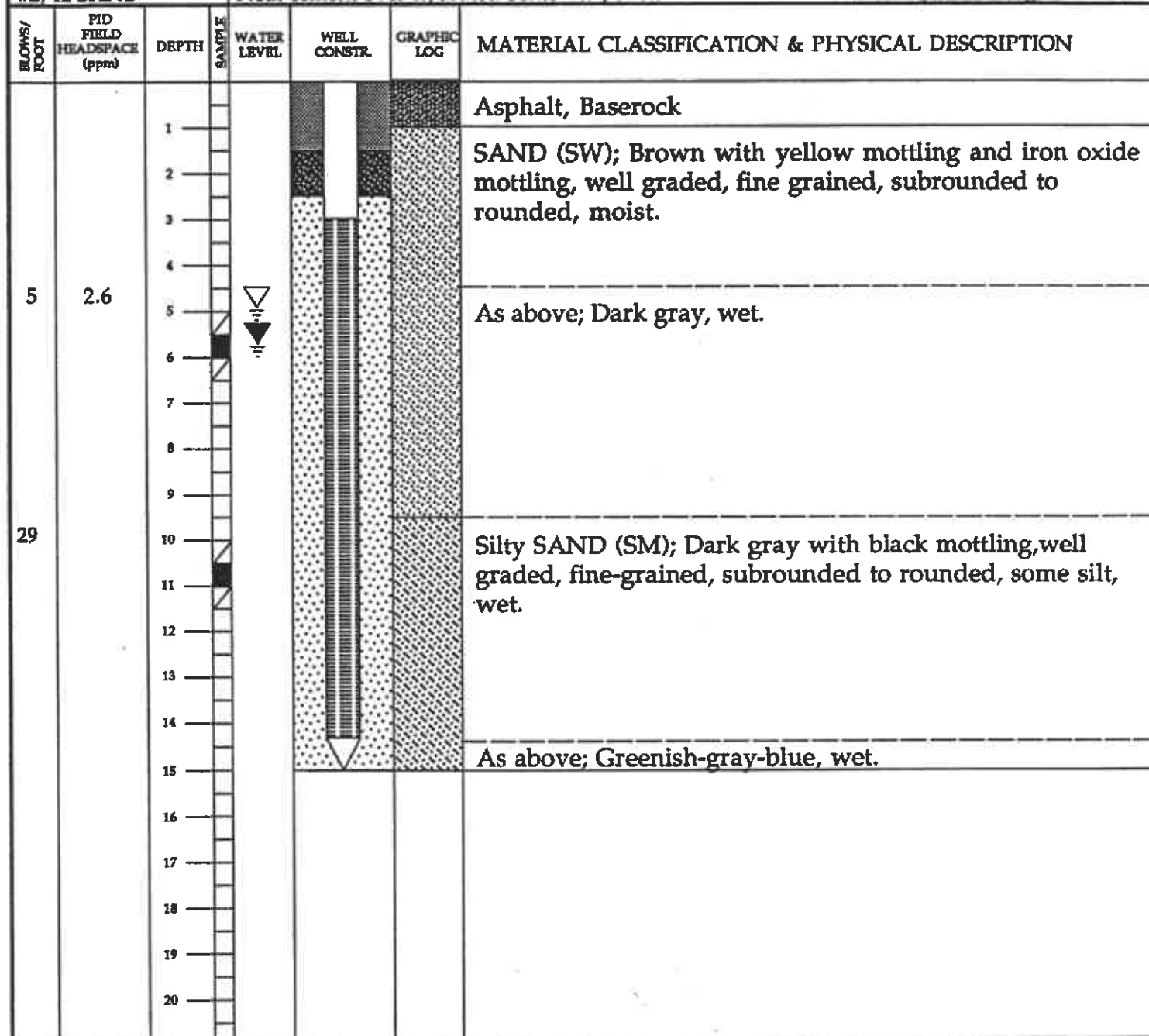
PLATE
B-2

SHEET 1 OF 1

JOB NO.

9-042.1

SITE/LOCATION 3255 Mecartney Road, Alameda, CA		BEGUN 1/19/95	BORING DIAMETER 10 Inches	ANGLE/BEARING 90 Degrees	BORING NO MW-6
DRILLING CONTRACTOR PC Exploration, Inc.		COMPLETED 1/19/95	FIRST ENCOUNTERED WATER DEPTH 5.0 Feet		BOTTOM OF BORING 15.0 Feet
DRILL MAKE & MODEL CME 75	OPERATOR Frank Bartolovi	LOGGED BY Frances Maroni	STATIC WATER DEPTH/DATE 5.76 Feet (1/28/95)		WELL NO. MW-6
WELL MATERIAL PVC SCH 40	SLOT SIZE 0.010"	SAMPLING METHOD California modified split spoon			BOTTOM OF WELL 15.0 Feet
FILTER PACK #2/12 SAND	WELL SEAL Neat cement over hydrated bentonite pellets			PLANNED USE Monitoring	



HYDR - ENVIRONMENTAL TECHNOLOGIES, INC.

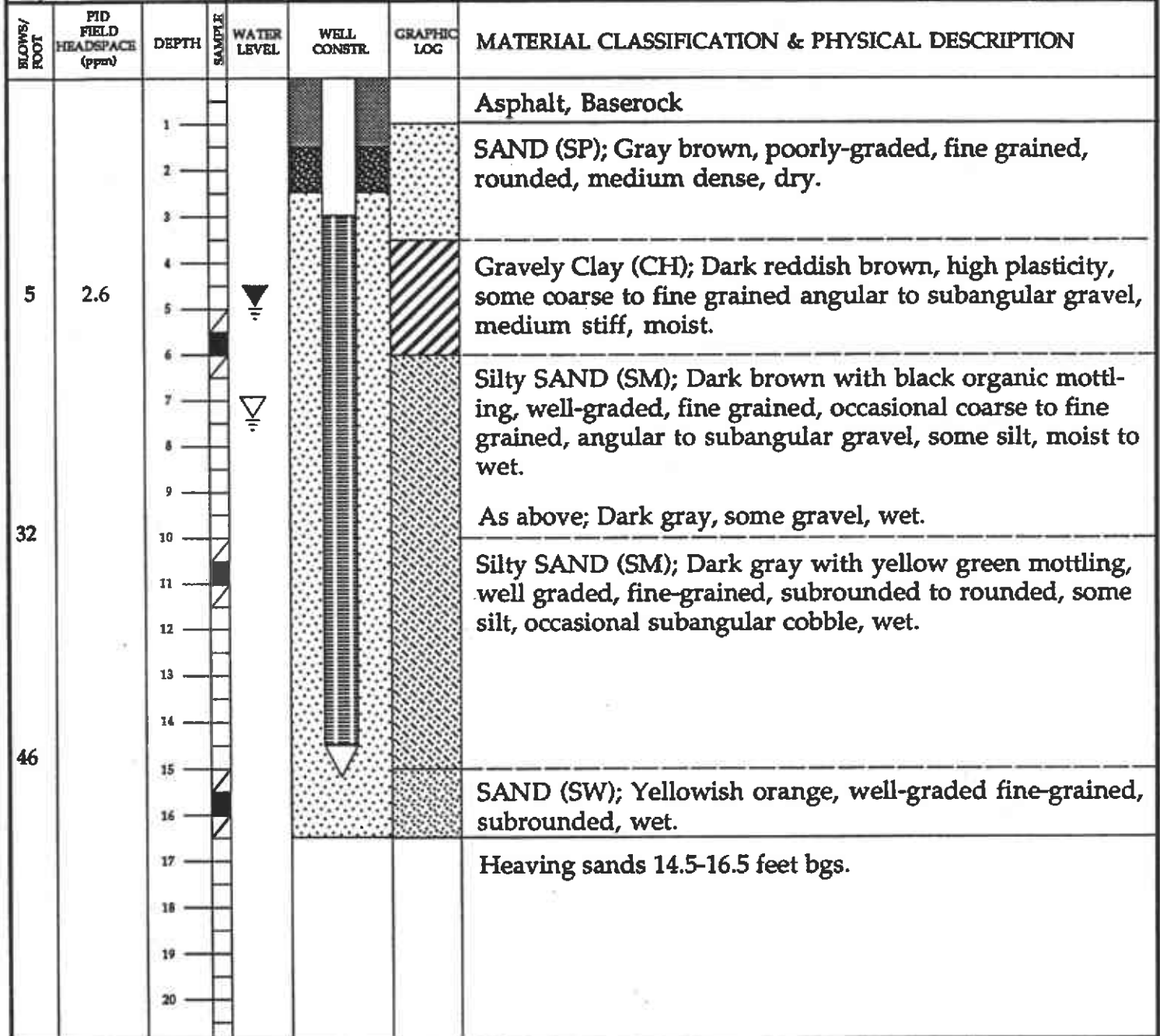
SOIL BORING LOG AND WELL CONSTRUCTION DIAGRAM MW-6

BP Service Station No. 11270
3255 Mecartney Road
Alameda, CA

PLATE B-3
SHEET 1 OF 1
JOB NO. 9-042.2

DATE: February 10, 1995
APPROVED BY: Gary Pischke C.E.G.

SITE/LOCATION 3255 Mecartney Road, Alameda, CA		BEGUN 1/18/95	BORING DIAMETER 10 Inches	ANGLE/BEARING 90 Degrees	BORING NO MW-7
DRILLING CONTRACTOR PC Exploration, Inc.		COMPLETED 1/19/95	FIRST ENCOUNTERED WATER DEPTH 5.0 Feet		BOTTOM OF BORING 16.5 Feet
DRILL MAKE & MODEL CME 75	OPERATOR Frank Bartolovi	LOGGED BY Frances Maroni	STATIC WATER DEPTH/DATE 7.54 Feet		WELL NO. MW-7
WELL MATERIAL PVC SCH 40	SLOT SIZE 0.010"	SAMPLING METHOD California modified split spoon			BOTTOM OF WELL 15.0 Feet
FILTER PACK #2/12 SAND	WELL SEAL Neat cement over hydrated bentonite pellets				PLANNED USE Monitoring



**HYDR -
ENVIRONMENTAL
TECHNOLOGIES, INC.**

**SOIL BORING LOG AND
WELL CONSTRUCTION DIAGRAM
MW-7**

**PLATE
B-4
SHEET 1 OF 1**

BP Service Station No. 11270
3255 Mecartney Road
Alameda, CA

**JOB NO.
9-042.2**

DATE: February 10, 1995

APPROVED BY: Gary Plachke C.E.G.

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

SENSITIVE RECEPTORS SURVEY
Site Survey and Literature Research

Store No: 11270
 Location: 3255 McCartney Rd.
 City/State: Alameda, CA

I. Provide answers to the following questions:

- a. Is a public water supply well within 2500 ft? (y/n)
 If yes, Distance (ft) _____
- b. Is a private water supply well within 1000 ft? (y/n)
 If yes, Distance (ft) _____
- c. Is a subway within 1000 ft? (y/n)
 If yes, Distance (ft) _____
- d. Is a basement within 1000 ft? (y/n)
 If yes, Distance (ft) _____
- e. Is a School within 1000 ft? (y/n)
 If yes, Distance (ft) _____
- f. Is a surface body of water within 1000 ft? (y/n)
 If yes, Distance (ft) 500

II. Describe type of local water supply:

Public
 *Supplier's Name East Bay Municipal District 891-0615
 *Supplier's Source American/Mokelumne River - Folsom
 *Distance to Site 90 mi
 Private _____

III. Aquifer Classification, if available:

- _____ Class I: Special Ground Waters
 Irreplaceable Drinking Water Sources
 Ecologically Vital
N/A
- _____ Class II: Current and Potential Drinking Water
- _____ Class III: Not Potential Source of Drinking Water

IV. Describe observation wells, if any:

Number 4
 Free Product _____ (y/n)

V. Signature of Preparer Henry Hurdhans Date 11-4-92

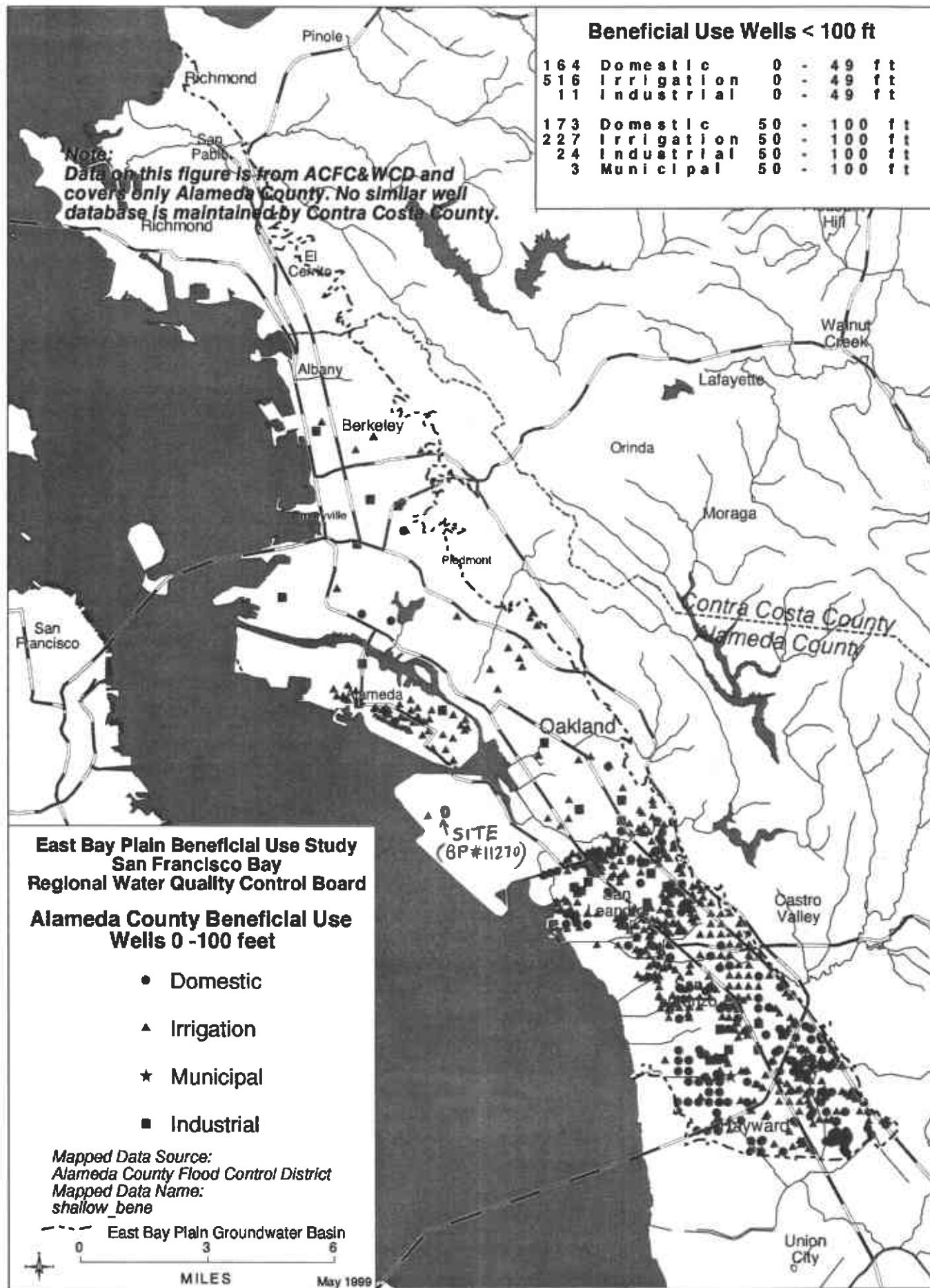


Figure 16

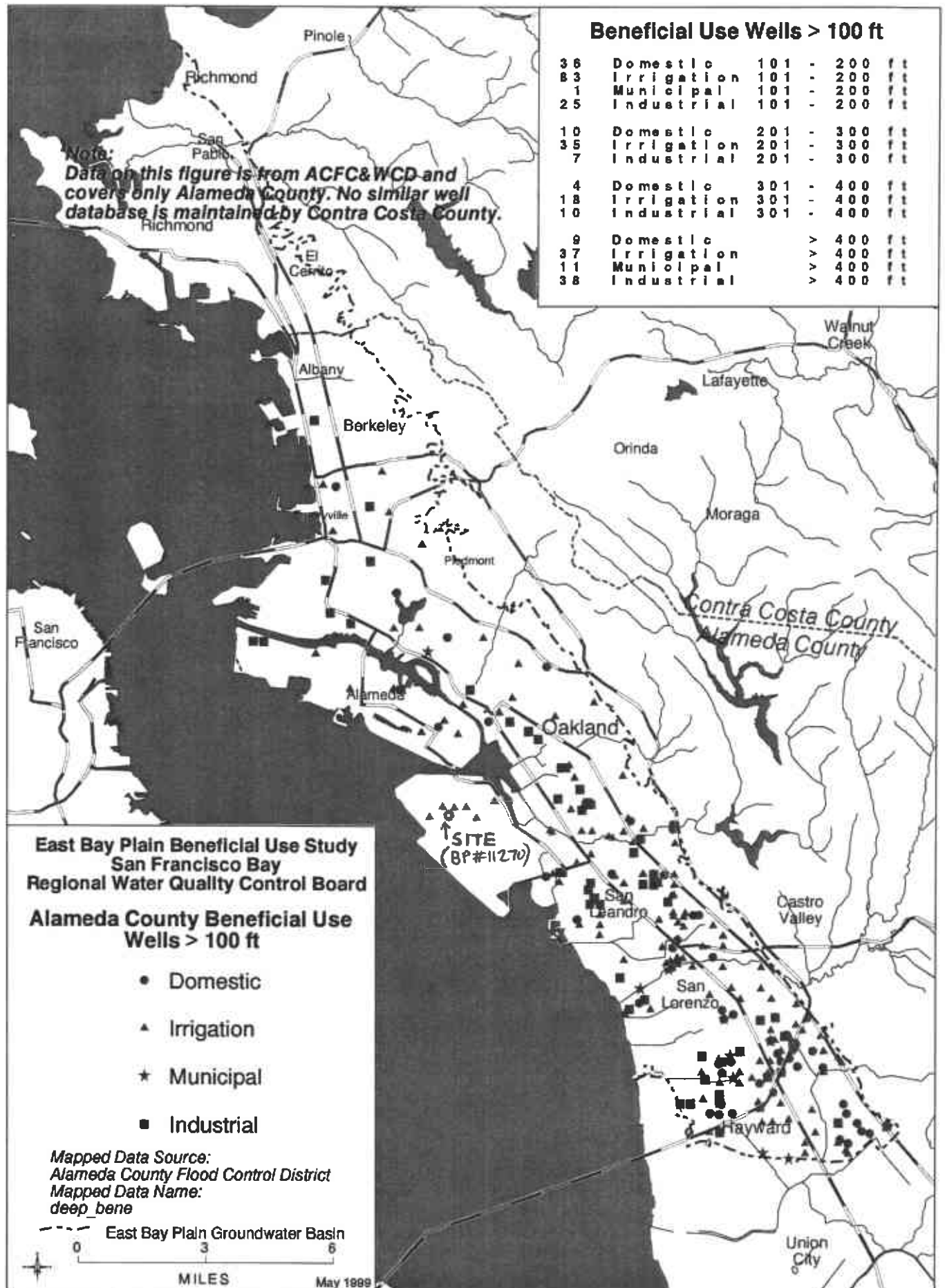


Figure 17

SITE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: October 15, 2004

Agency Name: S.F.B.R.W.Q.C.B.	Address: 1515 Clay Street, Suite 1400
City/State/Zip: Oakland, CA 94612	Phone: (510) 622-2374
Responsible Staff Person: Roger Brewer	Title: Associate Engineering Geologist

II. SITE INFORMATION

Site Facility Name: Former BP Service Station #11270				
Site Facility Address: 3255 Mecartney Road, Alameda, CA				
RB LUSTIS Case No. 1771	Local or LOP Case No.: RO0000511	Priority:		
URF Filing Date:	SWEEPS No.:			
Responsible Parties (include addresses and phone numbers)				
Atlantic Richfield Company, c/o Kyle Christie, Environmental Business Manager, Remediation Management				
Remediation Management				
4 Centerpiece Drive, Room 172, La Palma, CA 90623-1066				
Phone No. 714-670-5303				
Tank No.	Size in Gallons	Contents	Closed In-Place/Removed?	Date
1	1,000	Used Oil	Removed	07/98

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown			
Site characterization complete?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Approved By Oversight Agency:	
Monitoring wells installed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Number: 7	Proper screened interval? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Highest GW Depth Below Ground Surface: 5.24 ft	Lowest Depth: 9.15 ft	Flow Direction: west through north to northeast	
Most Sensitive Current Use: Commercial			
Most Sensitive Potential Use and Probability of Use: drinking and irrigation water			
Are drinking water wells affected?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Aquifer Name: Shallow	
Is surface water affected?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Nearest/Affected SW Name: None	
Off-Site Beneficial Use Impacts (Addresses/Locations): None known			
Report(s) on file?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Where is report(s) filed? Alameda County Health Care Services	

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL									
Material	Amount (Include Units)		Action (Treatment or Disposal w/Destination)				Date		
Tank	1 each (1,000-gallon)		Disposed offsite				07/98		
Piping	Unknown		Disposed offsite				05/90 and 08/00		
Free Product									
Soil	195 cubic yards		Excavated/aerated onsite/disposed offsite				05/90 - 06/90		
Groundwater									
Barrels									
MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP									
POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
TPH (Gas)	6,900	860	51,000	290	Xylene	700	13	10,500	6.83
TPH (Diesel)	480	480	4,300	1,000 ¹	Ethylbenzene	120	7.5	360	11.2
Benzene	70	5	350	0.957	Oil & Grease	NA	NA	NA	NA
Toluene	260	2.8	510	<5.0	Heavy Metals	36 ² (lead)	5.7 (lead)	NA	NA
MTBE	ND<0.1	ND<0.1	38,000	50.7	Other				
Comments (Depth of Remediation, etc.): Please refer to Case Closure Report for details; maximum excavation depths were 8.5 feet bgs in the dispenser location area.									
1 Analyzed in 02/05/95 in MW-6 and hasn't been analyzed in MW-6 since then 2 Organic lead was non-detectable									

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan?	X Yes No	
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan?	X Yes No	
Does corrective action protect public health for current land use?	X Yes No	
Site Management Requirements: Future construction activities at the Site may warrant appropriate measures and precautions to deal with potential residual hydrocarbon in onsite soils.		
Monitoring Wells Decommissioned: Yes X No	Number Decommissioned: 4	Number Retained: 3
List Enforcement Actions Taken:	NONE	
List Enforcement Actions Rescinded:		

V. TECHNICAL REPORTS, CORRESPONDENCE ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

Title:	Date:
Please refer to Case Closure Report for details	09/10/04

VI. ADDITIONAL COMMENTS, DATA, ETC.

PLEASE INCLUDE/ATTACH THE FOLLOWING AS APPROPRIATE:

- 1) SITE MAP INDICATING TANK PIT LOCATION, MONITORING WELL LOCATION, GROUNDWATER GRADIENT, ETC.; AND,
- 2) SITE COMMENTS WORTHY OF NOTICE (E.G., AREA OF RESIDUAL POLLUTION LEFT IN PLACE, DEED NOTICES ETC.)

Please refer to Case Closure Report for details

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.