- The site presents no significant risk to human health (*human health risk evaluation*).
- The site presents no significant risk to the environment (*environmental risk evaluation*).

This request for site closure addresses each of the six criteria below.

SOURCE REMOVAL

Information provided by the Estate and documented in the *Preliminary Subsurface Soils and Groundwater Investigation Report* (TMC Environmental, Inc. [TMC], August 28, 1992) documents the site as the location of a former gasoline service station. The service station opened during the 1920's and closed in early the 1970's. Sometime in the early 1970's, the underground storage tanks (USTs) were removed from the site. Records indicate that the UST complex was located in the eastern portion of the site, however the position and number of USTs removed from the site is unknown.

From the early 1970's to 1993, the site was operated as an auto repair shop. On December 5, 1991, TMC removed an underground automotive waste-oil tank at the site (TMC, January 2, 1992). Two soil samples were collected from the bottom of the tank pit and analyzed for total petroleum hydrocarbons calculated as gasoline and diesel (TPH-g and TPH-d); the metals cadmium, chromium, lead, and zinc; oil and grease; semi-volatile organics; and halogenated volatile organic compounds (HVOCs). The laboratory results for both soil samples indicated non-detectable concentrations for all petroleum hydrocarbons (Table 1).

Based on the procedure outlined in the *Corrective Action Plan* (PACIFIC, April 11, 1995), PACIFIC excavated the former UST complex, three hydraulic lifts (hoists), and product lines from the site in September 1995. This work was documented in PACIFIC's *Soil Excavation Report* (December 28, 1995). Approximately 750 cubic yards of soil were excavated from the area of the former UST complex. This produced an excavation of approximately 37 feet wide by 48 feet long by 11 feet deep in the area assumed to be near the former gasoline USTs. Confirmation soil samples were taken in the invert and sidewalls of the excavation (Table 2). These samples were analyzed for TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) (Figure 2, Table 2).

Soil samples were also collected from the invert and sidewall of the hydraulic lift excavations and analyzed for TPH-g and BTEX compounds (Table 3). The analytical results indicated petroleum hydrocarbon concentrations below the level of detection for most soil samples except for Sample HL-4 which was collected from the western sidewall of

the existing on-site building (Figure 3). Excavation of this hoist pit was completed to the feasible limit of excavation because of potential undermining of the building wall; benzene in this soil sample was non-detect.

SITE CHARACTERIZATION

In August 1991, TMC drilled seven borings on the site (TMC, August 28, 1992). The borings were drilled to identify any petroleum hydrocarbons present in subsurface soils and to locate any USTs remaining on site.

During May 1992, 12 additional soil borings were drilled and 2 groundwater monitoring wells were installed by TMC (Figure 4). During the second investigation, selected soil and groundwater samples were analyzed for TPH-g, TPH-d, BTEX compounds, oil and grease, HVOCs, and VOCs.

In February 1994, PACIFIC drilled 12 exploratory soil borings and installed 6 groundwater monitoring wells at the site (PACIFIC, July 5, 1994) (Figure 5). Soil samples were collected during drilling activities from depths ranging between 3 and 15 feet below ground surface (bgs).

The *Remedial Work Plan* (PACIFIC, June 29, 1995) (Plan), based on PACIFIC's *Corrective Action Plan*, was submitted to the Alameda Health Care Services Agency (ACHCS) for approval. The Plan was approved with minor changes by Ms. Eva Chu of the ACHCS (July 7, 1995). In September 1995, PACIFIC excavated the former UST complex and removed the product lines and three hydraulic hoists from the site (PACIFIC, December 28, 1995).

Off-Site Source Investigation

A file search and background investigation for potential off-site sources of petroleum hydrocarbons in the vicinity of the site was reported in PACIFIC's *Soil Investigation Report* (July 5, 1994). Information was collected from the files of Texaco Refining and Marketing Inc., the RWQCB (San Francisco Bay Region), the ACHCS Department of Environmental Health, and Pacific Aerial Survey.

The off-site source investigation focused on previous environmental work performed in the vicinity of the site. The results of the off-site source investigation indicate that there are multiple sources of petroleum hydrocarbons in close proximity to the site. The data do not indicate that these sources are significant contributors in affected groundwater beneath the Estate.

Groundwater Flow Direction Data

With the exception of the Exxon service station located at 1725 Park Street, all other available site data indicated the groundwater flow direction was to the northeast. Prior to the installation of Exxon's off-site wells, groundwater flow direction was to the east. However, since the installation of Exxon's off-site wells, groundwater flow direction has been to both the east and northeast (PACIFIC, July 5, 1994).

PLUME STABILITY

Since 1991, several groundwater monitoring wells have been installed and abandoned at the site. Monitoring Wells MW-1 and MW-2 were drilled and installed in 1992 by TMC and Wells MW-3 through MW-8 were drilled and installed by PACIFIC in February 1994. Monitoring Wells MW-1 through MW-4, MW-6, and MW-7 were abandoned in August 1995 to excavate the petroleum hydrocarbon-impacted soil at the site. Monitoring Well MW-9 was installed off site by PACIFIC in September 1995. Based on the results of the second quarter 1996 monitoring and sampling event for the site (Tables 4 and 5) (PACIFIC, May 14, 1996), petroleum hydrocarbon concentrations in Well MW-9, located at the downgradient property boundary, and the hydropunch data described below, the extent of the downgradient petroleum hydrocarbons in groundwater has been delineated. With the exception of xylenes, all petroleum hydrocarbon concentrations in groundwater from Well MW-9 have not been above detectable concentrations for the past 2 quarters. However, the concentrations of xylenes were 0.91 part per billion (ppb) (January 31, 1996) and 1.4 ppb (May 3, 1996). This indicates that most petroleum hydrocarbons are not migrating off site and that the plume is stable.

Furthermore, data from Wells MW-5 and MW-8 during 1994 through 1996 indicate that petroleum hydrocarbon concentrations are decreasing. The decreasing trend is observed most dramatically after the removal of the petroleum hydrocarbon-impacted soils, including impacted saturated zone soils, by PACIFIC during September 1995. Correlating the decrease of petroleum hydrocarbon concentrations with no increase in downgradient concentrations indicates that the plume is stable.

During February 1995, PACIFIC gathered hydropunch data from off site (adjacent to the sewer main in Eagle Street) in order to obtain downgradient information. Hydropunch HP-6 had no detectable concentrations of TPH-g or benzene (Figure 6). Exxon also obtained hydropunch information for its off-site groundwater petroleum hydrocarbon plume in September 1992. Exxon's groundwater grab Sample P-18 (PACIFIC, July 5, 1994) indicated that the dissolved plume had not migrated beyond the sewer line at Eagle Avenue.

PACIFIC collected groundwater samples from Monitoring Wells MW-5, MW-8, and MW-9 on May 10, 1996 to establish baseline groundwater characteristics. The samples were analyzed by PACIFIC in the field for dissolved oxygen and carbon dioxide. Groundwater samples were submitted to Sequoia Analytical for analyses of nitrate and sulfate. The results of dissolved oxygen analyses from this study are presented in Table 6. Based upon these measured parameters, intrinsic bioremediation will occur in groundwater at this site and thus plume concentration is expected to decrease.

BENEFICIAL USE

According to the City of Alameda, East Bay Municipal Utilities District, and the Alameda County Flood Control and Water Conservation District (Zone 7), no drinking water wells are located in the City of Alameda. Monitoring, industrial, and private irrigation wells are located within the city; however since the immediate area is commercial, it is unlikely that any irrigation or industrial wells are within the extent of the petroleum hydrocarbon plume. Within the immediate area of the site, many monitoring wells are located along Park Street from other petroleum hydrocarbon-impacted sites as indicated from the off-site source report detailed above. However, since no wells in the area are used for drinking water, ingestion of petroleum hydrocarbon-impacted groundwater is not a concern for the site.

The nearest surface water from the site is the Tidal Canal which runs between Alameda and Oakland. The Tidal Canal is approximately 1/4 mile east of the site and is used as a shipping channel. The plume from the site does not extend to the Tidal Canal.

HUMAN HEALTH RISK EVALUATION

To evaluate the potential risk to human health from the site, the American Society for Testing and Materials (ASTM) Risk Based Corrective Action (RBCA) Applied at Petroleum Sites Lookup Table was compared to data obtained from the site. The groundwater and soil data generated during the excavation and the quarterly monitoring events were compared to the Lookup Table provided by the ASTM. Since there are low levels of BTEX compounds in the groundwater and in the subsurface soil (greater than 3 feet bgs), both the soil and groundwater were evaluated as pathways (Tables 1 and 2).

Since groundwater ingestion is not a complete pathway and dermal exposure to the subsurface soil is unlikely due to the depth (greater than 3 feet bgs), the only exposure pathway evaluated for risk was inhalation. Both volatilization from groundwater and subsurface soil to enclosed spaces and to ambient air was evaluated. A cancer risk of 1:10,000 was used for benzene because the site is within a commercial/industrial setting.

All other non-cancerous petroleum hydrocarbon compounds were evaluated using a hazard quotient of 1.

The numerical results of the risk evaluation are presented as Attachment A. Overall, the comparison of site data to the RBCA Lookup Table indicates that all petroleum hydrocarbon concentrations on site are below the Lookup Table's allowable concentrations. According to the Lookup Table, benzene in subsurface soil would not pose an inhalation risk to on-site employees based upon the 1:10,000 criterion and the location of the one sample containing benzene (8 feet bgs and outside, below an asphalt cap).

ENVIRONMENTAL RISK EVALUATION

As indicated previously, the downgradient extent of the plume does not reach the nearest surface water, the Tidal Canal, nor does it threaten a potable aquifer. Since the surrounding area is commercial and industrial, there are few environmentally sensitive receptors (wetlands, etc.) which could be impacted from the soil or groundwater. Therefore, the site does not present a significant risk to the environment.

CONCLUSIONS

Based on the information presented above, we respectfully request that the site be removed from the ACHCS's active fuel leak case list, that the three remaining wells be abandoned, and no further investigation or monitoring be required. Please call to discuss the conclusions of this letter at your earliest convenience. A complete bibliography of pertinent site environmental reports is presented as Attachment B.

If you have any questions regarding this letter, please call.

Sincerely,

Pacific Environmental Group, Inc.

Lance D. Geselbracht, P.E.
Senior Engineer
RCE 34688

Attachments:
- Table 1 - Soil Analytical Data, Tankpull - Total Petroleum Hydrocarbons (TPH as Gasoline, TPH as Diesel, Metals, Volatile Organic Halocarbons by Method 8010, Base Neutral and Acid Extractables by Method 8270, and Oil and Grease)
- Table 2 - Soil Analytical Data, Excavation - Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX Compounds, and Lead)
- Table 3 - Soil Analytical Data, Hoist Removal - Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX Compounds, TRPH, and Metals)
- Table 4 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline, BTEX Compounds, TPH as Diesel, Oil and Grease, and MtBE)
- Table 5 - Groundwater Elevation Data
- Table 6 - Intrinsic Bioremediation Groundwater Analytical Data (Dissolved Oxygen, Carbon Dioxide, Nitrate, and Sulfate)
- Figure 1 - Site Location Map
- Figure 2 - Former Tank Area Excavation Map
- Figure 3 - Hydraulic Lift Excavation Map
- Figure 4 - 1992 Soil Boring Map
- Figure 5 - 1994 Soil Boring Map
- Figure 6 - Sewer Main Hydropunch Map
- Attachment A - RBCA Site Assessment
- Attachment B - Bibliography

cc: Michael Brown, Esq., Mendelson and Brown
Mr. Marvin Katz, Texaco Refining and Marketing Inc.

Table 1

Soil Analytical Data - Tankpull

Total Petroleum Hydrocarbons

(TPH as Gasoline, TPH as Diesel, Metals, Volatile Organic Halocarbons by Method 8010, Base Neutral and Acid Extractables by Method 8270, and Oil and Grease)

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Type of Sample	Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (ppm)	TPH as Diesel (ppm)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Zinc (ppm)	VOHs 8010 (ppb)	Extractables 8270 (ppb)	Oil and Grease (ppm)
Soil Beneath Tank	SS-1	6.5	12/05/91	<1.0	<1.0	<0.25	44.7	<3.0	48.5	<5.0 to <10	<330 to <1,650	<50
Soil South of Tank	SS-2	6.5	12/05/91	<1.0	<1.0	<0.25	36.6	<3.0	147	<5.0 to <10	<330 to <1,650	<50

ppm = Parts per million
ppb = Parts per billion

Table 2
Soil Analytical Data - Excavation
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, and Lead)

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Type of Sample	Sample ID	Sample Depth (feet)	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	Lead (ppm)
Stockpile	SP-(1-4)	NA	09/13/95	590	<0.50	1.8	9.1	11	15
	SP-(1-4) Comp	NA	09/19/95	120	<0.25	<0.25	<0.25	1.6	12
	SP-5 (A-D) Comp	NA	09/20/95	150	<0.05	0.3	1.3	6.4	5.1
	SP-6 (A-D) Comp	NA	09/21/95	580	<0.50	1.2	5.5	28	6.6
	SP-7D	NA	09/21/95	230	<0.25	<0.25	1.5	3.5	7.2
	SP-8D	NA	09/21/95	170	<0.25	0.32	0.68	2.6	17
	SP-9 (A-D)	NA	09/22/95	250	<0.25	0.77	0.97	3 5	<5.0
	SP-10 (A-D)	NA	09/22/95	780	<1.0	<1.0	<1.0	2.1	5
Invert of Pit	INV-1	11	09/21/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	INV-2	11	09/21/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	INV-3	11	09/21/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	INV-4	11	09/22/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	INV-5	NA	09/29/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	INV-6	NA	09/29/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
Product Line	PL-1	18	09/27/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
Sidewall of Pit	W-1	3	09/19/95	110	<1.2	4.1	7.7	33	6.7
	W-2	4	09/19/95	3,500	<1.2	4.1	35	170	8.7
	SW-1	2	09/22/95	4.3	<0.005	<0.005	0.081	0.32	<5.0
	SW-2	8	09/27/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	SW-3	8	09/27/95	50	<0.05	<0.05	0.16	0.3	NT
	SW-4	NA	09/29/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	SW-5	NA	09/29/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	SW-6	NA	09/29/95	<1.0	<0.005	<0.005	<0.005	0.0074	NT
	SW-7	NA	09/29/95	<1.0	<0.005	<0.005	<0.005	<0.005	NT
	SW-8	NA	09/29/95	72	0.17	0.65	0.18	0.41	NT
	SW-9	NA	09/29/95	1,500	<1.5	<1.5	5.5	15	NT
	SW-10	NA	09/29/95	76	<0.10	<0.10	0.84	4.6	NT
	SW-11	NA	09/29/95	4,500	<10	<10	35	60	NT
	SW-12	NA	09/29/95	290	<0.50	<0.50	0.71	2.1	NT
	SW-13	NA	09/29/95	120	<0.12	<0.12	0.28	0.9	NT

ppm = Parts per million
NA = Not available
NT = Not tested

Table 3
Soil Analytical Data - Hoist Removal
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, TRPH, and Metals)

Estate of John B. Henry
1726 Park Street at Eagle Avenue
Alameda, California

Sample ID	Date Sampled	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Xylenes (ppm)	TRPH (ppm)	Cad-mium (ppm)	Chrom-ium (ppm)	Lead (ppm)	Nickel (ppm)	Zinc (ppm)
HL-1	10/25/95	<1.0	<0.005	<0.005	<0.005	<0.005	<15	NT	NT	NT	NT	NT
HL-2	10/25/95	25	<0.12	<0.12	<0.12	0.19	66	NT	NT	NT	NT	NT
HL-3	10/25/95	<1.0	<0.005	<0.005	<0.005	<0.005	<15	NT	NT	NT	NT	NT
HL-4	10/25/95	1400	<2.0	<2.0	4.3	15	2400	NT	NT	NT	NT	NT
HL-5	10/25/95	<1.0	<0.005	<0.005	<0.005	<0.005	<15	NT	NT	NT	NT	NT
HL-6	10/25/95	<1.0	<0.005	<0.005	<0.005	<0.005	<15	NT	NT	NT	NT	NT
HLSP-1D (Comp. 1A-1D)	10/26/95	NT	NT	NT	NT	NT	880	<0.50	35	11	24	30
HLSP-2D (Comp. 2A-2D)	10/26/95	NT	NT	NT	NT	NT	500	0.57	42	46	24	47

TRPH = Total recoverable petroleum hydrocarbons
ppm = Parts per million
NT = Not tested

Table 4
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, TPH as Diesel, Oil and Grease, and MtBE)

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Sample ID	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TPH as Diesel (ppb)	Oil and Grease (ppb)	MtBE (ppb)
MW-1	05/11/92	410	<0.5	1	4.2	11	96	NA	NT
	08/13/92	260	<0.5	0.6	4.2	4	<50	NA	NT
	01/14/93	270	<0.5	<0.5	1.1	6	<50	NA	NT
	05/10/93	450	1.1	1.1	8.7	15	450	<5	NT
	09/17/93	140	<0.5	<0.5	3.5	5.3	160	NA	NT
	01/31/94	140	<0.5	<0.5	6	1.7	<50	<50	NT
	04/22/94	790	1.9	4.5	11	35	<50	<50	NT
	07/25/94	550	1.2	1.2	8.9	11	310	<200	NT
	02/09/95	1,400	3.4	2.4	21	25	<50	NA	NT
	08/17/95	---------- Well Abandoned ----------							
MW-2	05/11/92	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	NT
	08/13/92	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	NT
	01/14/93	<50	<0.5	<0.5	<0.5	<0.5	57	<5	NT
	05/10/93	<50	<0 5	<0.5	<0.5	<0.5	<50	<5	NT
	09/17/93	<50	<0.5	<0.5	<0.5	<0.5	<50	<5	NT
	01/31/94	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	NT
	04/22/94	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	NT
	07/25/94	<50	0.98	1.4	<0.5	1.3	<50	<200	NT
	02/09/95	<50	<0.5	<0.5	<0.5	<0.5	3,500	NA	NT
	08/17/95	---------- Well Abandoned ----------							
MW-3	02/15/94	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	NT
	04/22/94	<50	<0.5	<0.5	<0.5	<0.5	<50	<200	NT
	07/25/94	<50	<0.5	0.65	<0.5	<0.5	<50	NA	NT
	02/09/95	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NT
	08/17/95	---------- Well Abandoned ----------							
MW-4	02/15/94	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	NT
	04/22/94	<50	<0.5	2.5	<0.5	<0.5	<50	NA	NT
	07/25/94	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NT
	02/09/95	<50	<0.5	<0.5	<0.5	<0.5	NA	NA	NT
	08/17/95	---------- Well Abandoned ----------							
MW-5	02/15/94	<50	<0.5	<0.5	<0.5	<0.5	<50	<50	NT
	04/22/94	1,600	4.1	<0.5	22	230	<50	<50	NT
	07/25/94	400	1.3	0.77	2.5	19	120	<200	NT
	02/09/95	<50	<0.5	<0.5	<0.5	<0.5	<50	NA	NT
	10/30/95	77	<0.5	<0.5	<0.5	1.7	650	NA	NT
	01/31/96	180	0.94	<0.50	2.1	18	190	NT	NT
	05/03/96	230	<0.50	<0.50	7.8	13	150	NT	<2.5
MW-6	02/15/94	1,100	120	2.2	13	100	NA	NA	NT
	04/22/94	3,800	360	25	420	27	NA	NA	NT
	07/25/94	1,100	110	5.1	190	13	NA	NA	NT
	02/09/95	4,100	490	36	4.2	110	NA	NA	NT
	08/17/95	---------- Well Abandoned ----------							
MW-7	02/15/94	14,000	3.5	95	4,000	650	NA	NA	NT
	04/22/94	3,400	8.4	6.7	110	600	NA	NA	NT
	07/25/94	2,800	5.4	7.8	100	300	NA	NA	NT
	02/09/95	13,000	20	73	760	2,900	NA	NA	NT
	08/17/95	---------- Well Abandoned ----------							

Table 4 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline, BTEX Compounds, TPH as Diesel, Oil and Grease, and MtBE)

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Sample ID	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Xylenes (ppb)	TPH as Diesel (ppb)	Oil and Grease (ppb)	MtBE (ppb)
MW-8	02/15/94	1,300	15	<0.5	110	23	NA	NA	NT
	04/22/94	500	5	<0.5	17	20	NA	NA	NT
	07/25/94	260	11	0.57	1.5	1.8	NA	NA	NT
	02/09/95	820	35	4.3	26	21	NA	NA	NT
	10/30/95	180	2.6	0.88	1.4	0.54	NT	NT	NT
	01/31/96	87	1.7	<0.50	<0.50	<0.50	160	NT	NT
	05/03/96	270	6.6	<0.50	9.3	95	440	NT	6.2
MW-9	11/15/95	1,200	3.6	<1.2	27	37	NT	NT	NT
	01/31/96	<50	<0.50	<0.50	<0.50	0.91	<50	NT	NT
	05/03/96	<50	<0.50	<0.50	<0.50	1.4	<50	NT	<2.5

ppb = Parts per billion
NA = Not available or applicable
MtBE = Methyl tert-butyl ether
NT = Not tested

Table 5
Groundwater Elevation Data

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-1	05/12/92	13.57	6.16	7.41
	07/28/92		6.68	6.89
	08/17/92		6.77	6.80
	09/21/92		6.96	6.61
	01/14/93		5.38	8.19
	09/17/93		7.42	6.15
	01/31/94		6.35	7.22
	02/14/94	16.76	6.59	10.17
	04/22/94		6.57	10.19
	07/25/94		6.71	10.05
	02/09/95		5.48	11.28
	08/17/95	---------- Well Abandoned ----------		
MW-2	05/12/92	14.35	5.94	8.41
	07/28/92		6.80	7.55
	08/17/92		6.94	7.41
	09/21/92		7.19	7.16
	01/14/93		4.82	9.53
	09/17/93		7.64	6.71
	01/31/94		6.50	7.85
	02/14/94	17.51	6.38	11.13
	04/22/94		6.50	11.01
	07/25/94		6.76	10.75
	02/09/95		4.96	12.55
	08/17/95	---------- Well Abandoned ----------		
MW-3	02/14/94	17.45	6.58	10.87
	04/22/94		6.72	10.73
	07/25/94		6.95	10.50
	02/09/95		5.14	12.31
	08/17/95	---------- Well Abandoned ----------		
MW-4	02/14/94	18.08	6.70	11.38
	04/22/94		6.86	11.22
	07/25/94		7.23	10.85
	02/09/95		5.29	12.79
	08/17/95	---------- Well Abandoned ----------		
MW-5	02/14/94	17.19	7.33	9.86
	04/22/94		6.69	10.50
	07/25/94		6.96	10.23
	02/09/95		5.45	11.74
	10/30/95		7.95	9.24
	01/31/96		5.78	11.41
	05/03/96		6.20	10.99
MW-6	02/14/94	16.63	6.61	10.02
	04/22/94		6.69	9.94
	07/25/94		6.80	9.83
	02/09/95		5.73	10.90
	08/17/95	---------- Well Abandoned ----------		

Table 5 (continued)
Groundwater Elevation Data

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
MW-7	02/14/94	16.24	6.55	9.69
	04/22/94		6.56	9.68
	07/25/94		6.59	9.65
	02/09/95		5.82	10.42
	08/17/95	---------- Well Abandoned ----------		
MW-8	02/14/94	16.00	6.41	9.59
	04/22/94		6.43	9.57
	07/25/94		6.44	9.56
	02/09/95		5.90	10.10
	10/30/95		7.14	8.86
	01/31/96		5.95	10.05
	05/03/96		6.00	10.00
MW-9	11/15/95	NM	8.05	NM
	01/31/96	16.30	5.80	10.50
	05/03/96		5.70	10.60

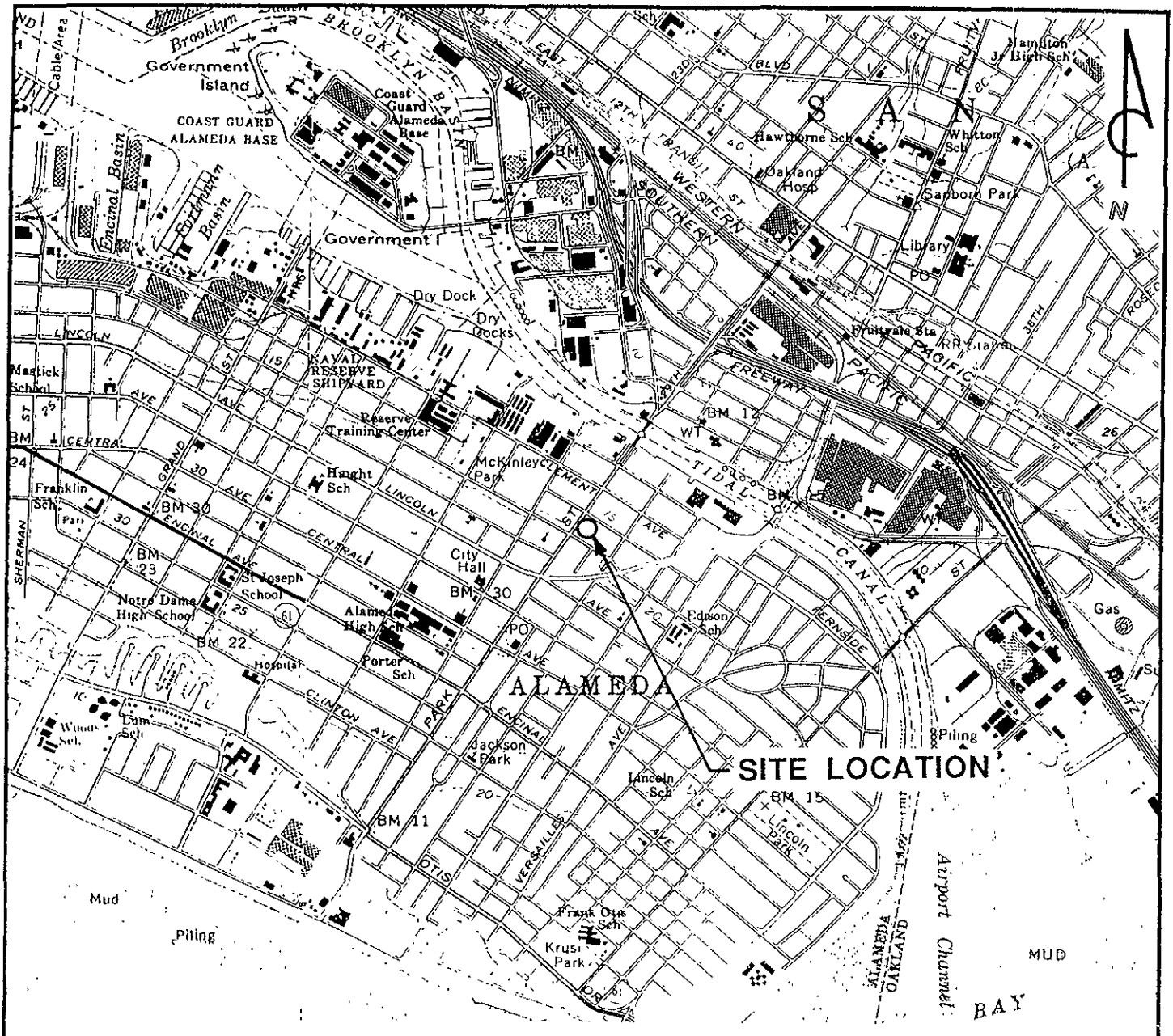
MSL = Mean sea level
TOC = Top of casing
NM = Not measured

Table 6
Intrinsic Bioremediation Groundwater Analytical Data
(Dissolved Oxygen, Carbon Dioxide, Nitrate, and Sulfate)

Estate of John B. Henry Property
1726 Park Street at Eagle Avenue
Alameda, California

Sample ID	Date Sampled	Dissolved Oxygen (mg/L)	Carbon Dioxide (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
MW-5	05/10/96	1	122	6.1	57
MW-8	05/10/96	1	76	<1.0	76
MW-9	05/10/96	1	310	25	94

mg/L = Milligrams per liter



QUADRANGLE LOCATION

REFERENCES:

USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: OAKLAND WEST, CALIFORNIA
DATED: 1959 REVISED: 1980
TITLED: OAKLAND EAST, CALIFORNIA
DATED: 1959 REVISED: 1980

SCALE IN FEET

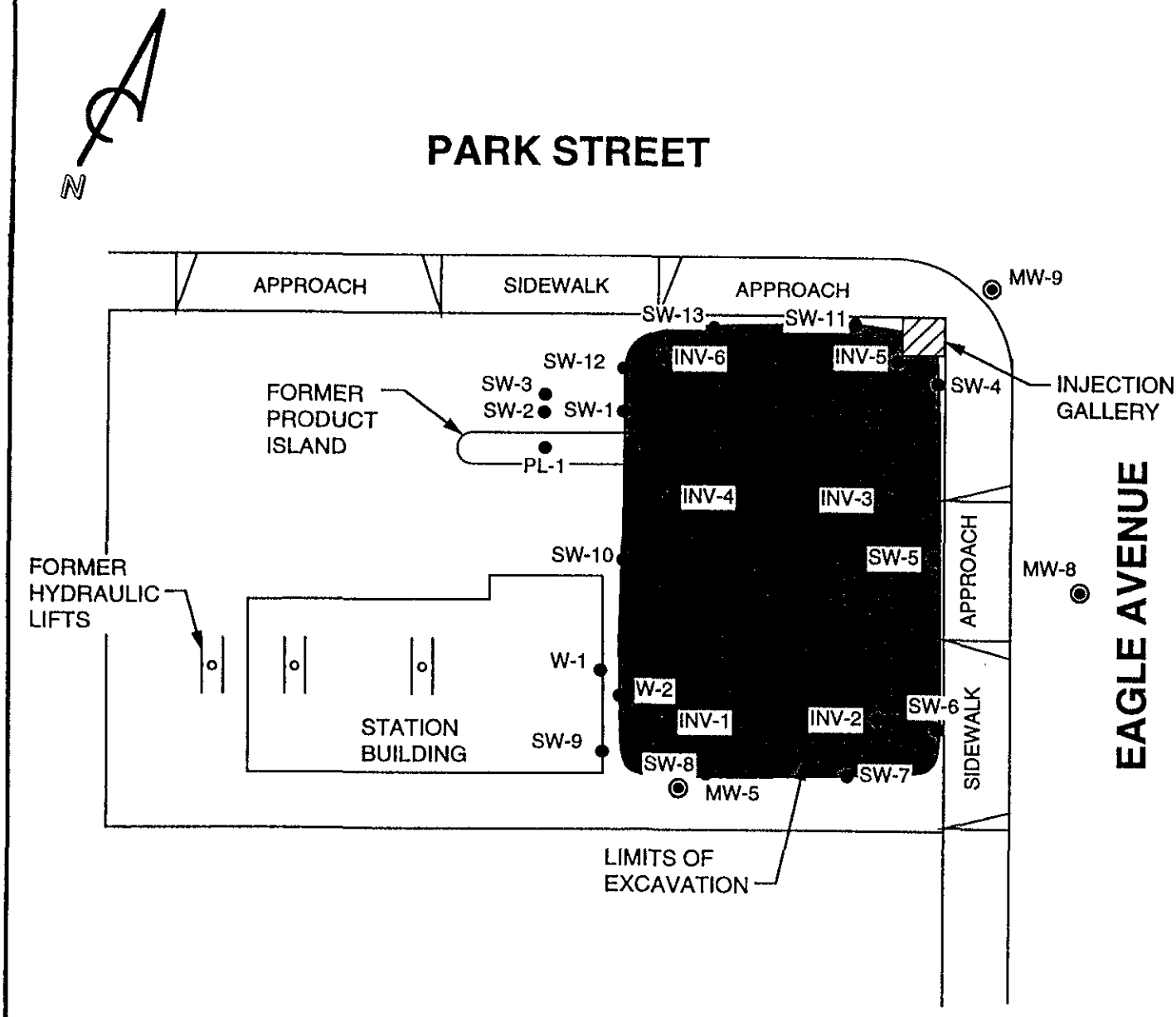
2000 0 2000

PACIFIC ENVIRONMENTAL GROUP, INC.

ESTATE OF JOHN B. HENRY PROPERTY
1726 Park Street at Eagle Avenue
Alameda, California

SITE LOCATION MAP

FIGURE: 1
PROJECT: 286-001.6A



LEGEND

MW-5 ◉ GROUNDWATER MONITORING WELL LOCATION *AND DESIGNATION*

SW-1 ● SOIL SAMPLE LOCATION AND DESIGNATION

SCALE

0 20 40 FEET

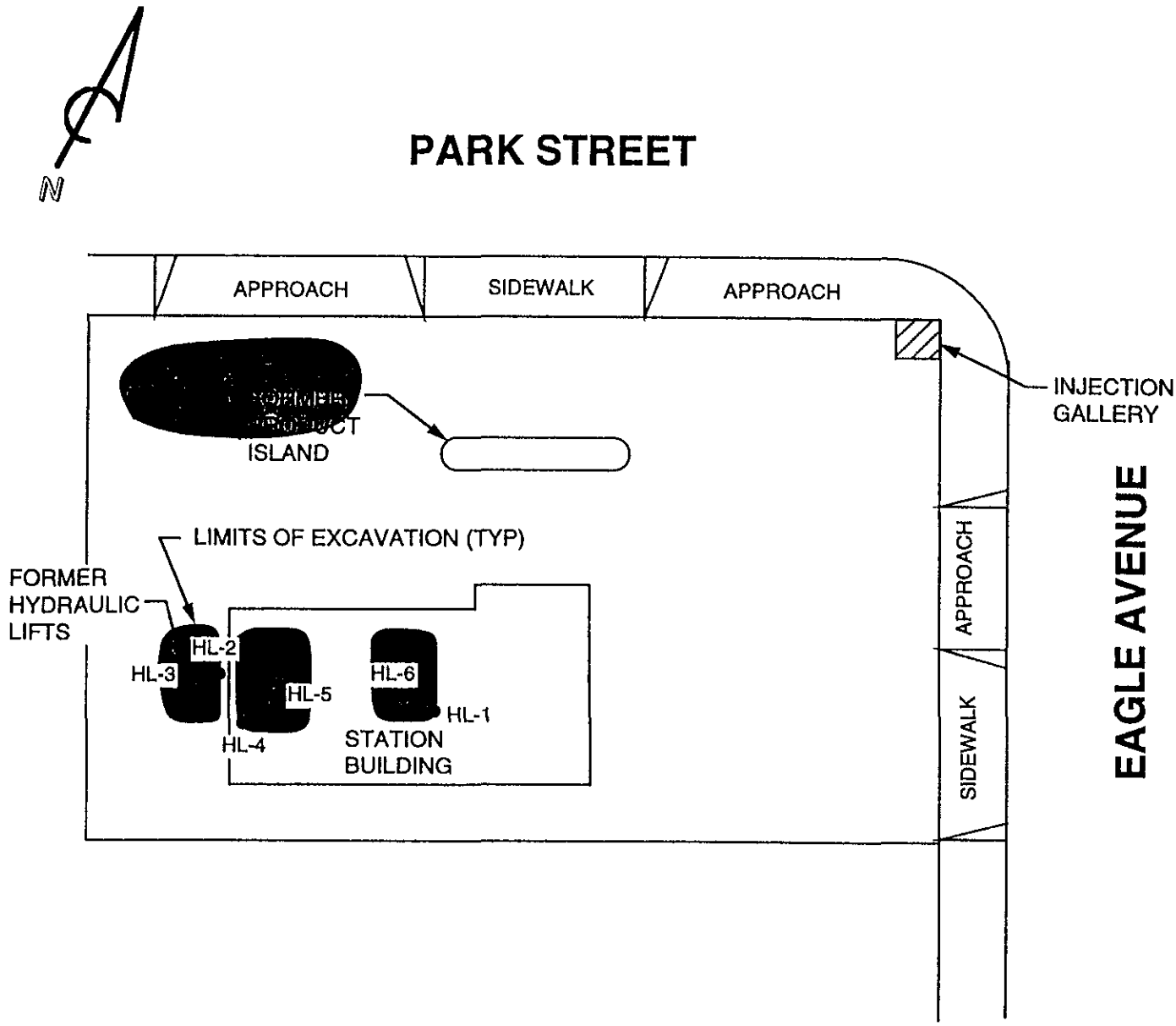
PACIFIC ENVIRONMENTAL GROUP, INC.

ESTATE OF JOHN B. HENRY PROPERTY
1726 Park Street at Eagle Avenue
Alameda, California

FORMER TANK AREA EXCAVATION MAP

FIGURE: **2**

PROJECT: 286-001.6A



LEGEND

HL-3 ● SOIL SAMPLE LOCATION AND DESIGNATION

✖ COMPOSITED SOIL SAMPLES LOCATION, HLSP-1D AND HLSP-2D

SCALE

0 20 40 FEET

PACIFIC ENVIRONMENTAL GROUP, INC.

ESTATE OF JOHN B. HENRY PROPERTY
1726 Park Street at Eagle Avenue
Alameda, California

HYDRAULIC LIFT EXCAVATION MAP

FIGURE: **3**

PROJECT: 286-001.6A

PROPERTY ADDRESS

1726 PARK STREET
ALAMEDA, CA.

SURVEYOR

DAVID M. LOGAN L.S. 5003
803 DORSET WAY
BENICIA, CA.
(707) 745-5053

DATE: MAY, 1992

SCALE: 1" = ± 25'

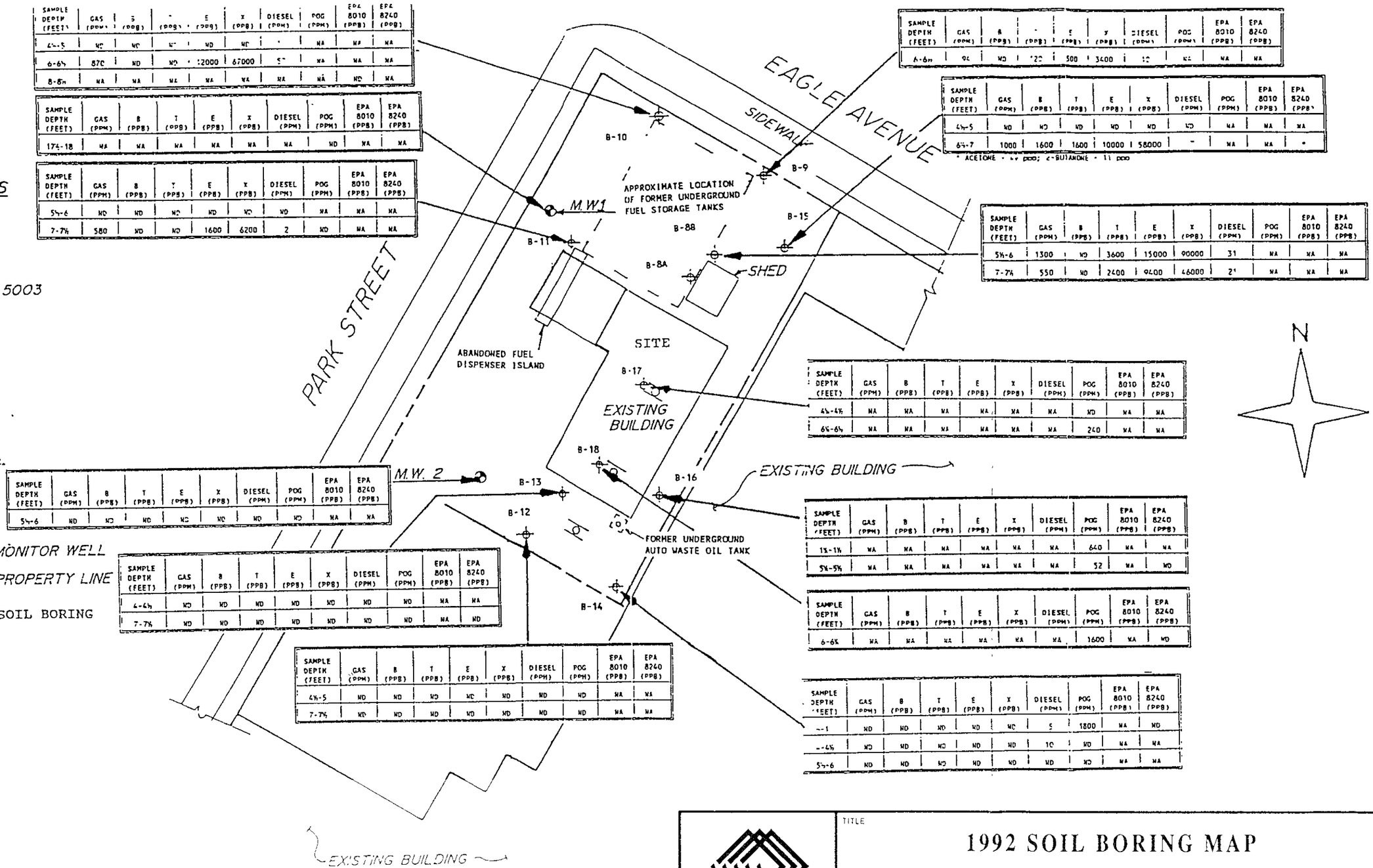
REVISED JUNE 12, 1992 BY TMC, INC.

LEGEND

M.W. — MONITOR WELL

PROPERTY LINE

SOIL BORING



SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4½-5	ND	ND	ND	ND	ND	-	NA	NA	NA
6-6½	870	ND	ND	12000	67000	5*	NA	NA	NA
8-8½	NA	NA	NA	NA	NA	NA	NA	ND	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
17½-18	NA	NA	NA	NA	NA	NA	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
5½-6	ND	ND	ND	ND	ND	ND	NA	NA	NA
7-7½	580	ND	ND	1600	6200	2	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
6-6½	94	ND	120	500	3400	10	NA	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4½-5	ND	ND	ND	ND	ND	ND	NA	NA	NA
6½-7	1000	1600	1600	10000	58000	-	NA	NA	*

* ACETONE - 44 ppm; 2-BUTANONE - 11 ppm

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
5½-6	1300	ND	3600	15000	90000	31	NA	NA	NA
7-7½	550	ND	2400	9400	46000	2*	NA	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4½-4½	NA	NA	NA	NA	NA	NA	ND	NA	NA
6½-6½	NA	NA	NA	NA	NA	NA	240	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
5½-6	ND	ND	ND	ND	ND	ND	NA	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4-4½	ND	ND	ND	ND	ND	ND	ND	NA	NA
7-7½	ND	ND	ND	ND	ND	ND	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4½-5	ND	ND	ND	ND	ND	ND	ND	NA	NA
7-7½	ND	ND	ND	ND	ND	ND	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
13-13½	NA	NA	NA	NA	NA	NA	640	NA	NA
5½-5½	NA	NA	NA	NA	NA	NA	52	NA	ND

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
6-6½	NA	NA	NA	NA	NA	NA	1600	NA	ND

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
--1	ND	ND	ND	ND	ND	5	1800	NA	ND
--4½	ND	ND	ND	ND	ND	10	ND	NA	NA
5½-6	ND	ND	ND	ND	ND	ND	ND	NA	NA

Reference TMC Environmental, Inc. 8-28-92

PACIFIC ENVIRONMENTAL GROUP, INC.

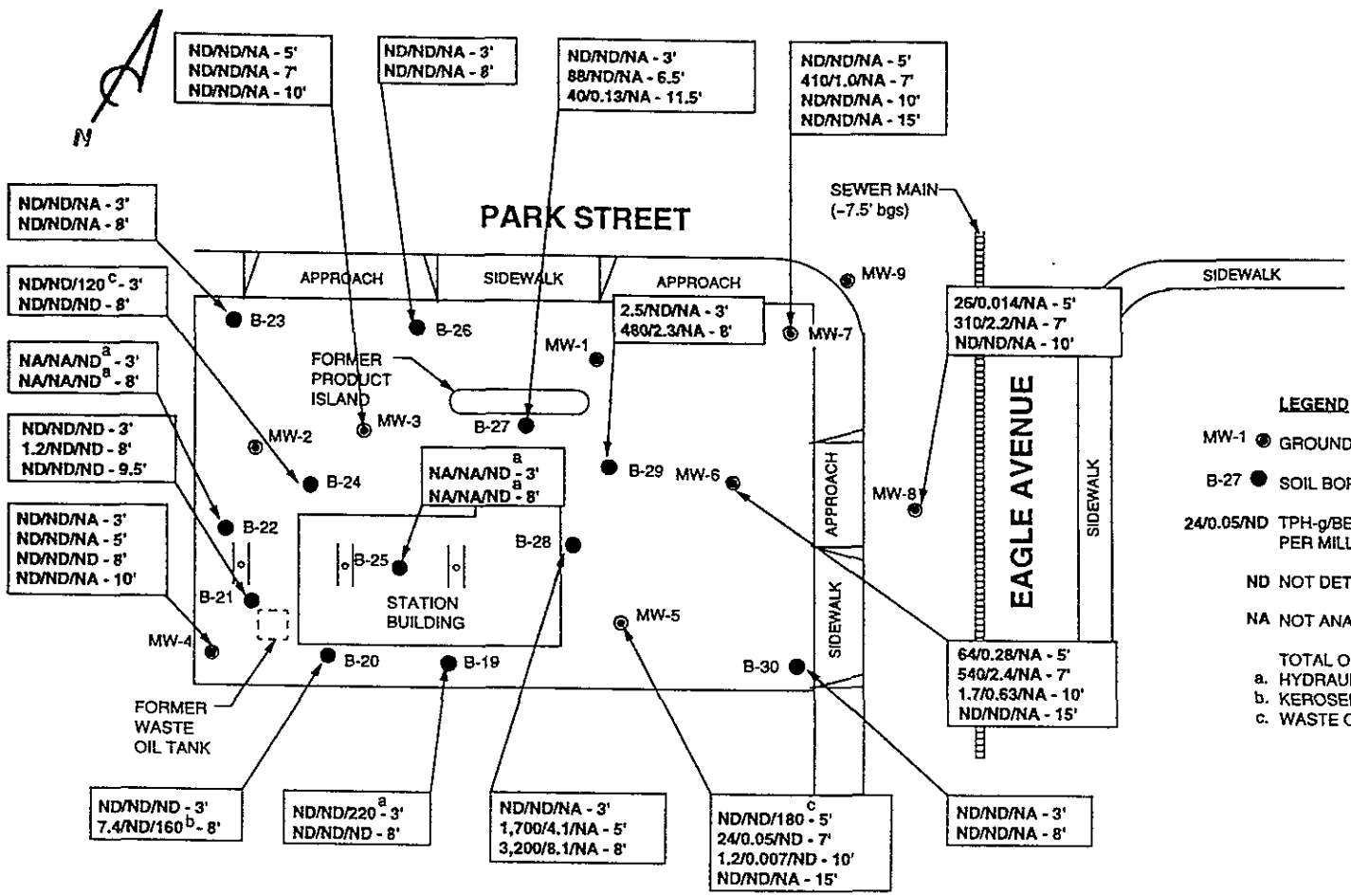
TITLE

1992 SOIL BORING MAP

PREPARED FOR

ESTATE OF JOHN B. HENRY
1762 Park Street at Eagle Avenue
Alameda, California

DATE: 5-15-96 | PROJECT: 286-001 6A | FIGURE. 4



LEGEND

MW-1 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

B-27 ● SOIL BORING LOCATION AND DESIGNATION

24/0.05/ND TPH-g/BENZENE/OIL and GREASE CONCENTRATION IN SOIL, IN PARTS PER MILLION, AT DEPTH INDICATED IN FEET, 2-9-94 and 2-10-94

ND NOT DETECTED

NA NOT ANALYZED

TOTAL OIL AND GREASE CHARACTERISTICS QUALITATED AS FOLLOWS:

a. HYDRAULIC OIL
b. KEROSENE (ALSO QUANTIFIED AS KEROSENE IN DIESEL RANGE)
c. WASTE OIL

PACIFIC ENVIRONMENTAL GROUP, INC.

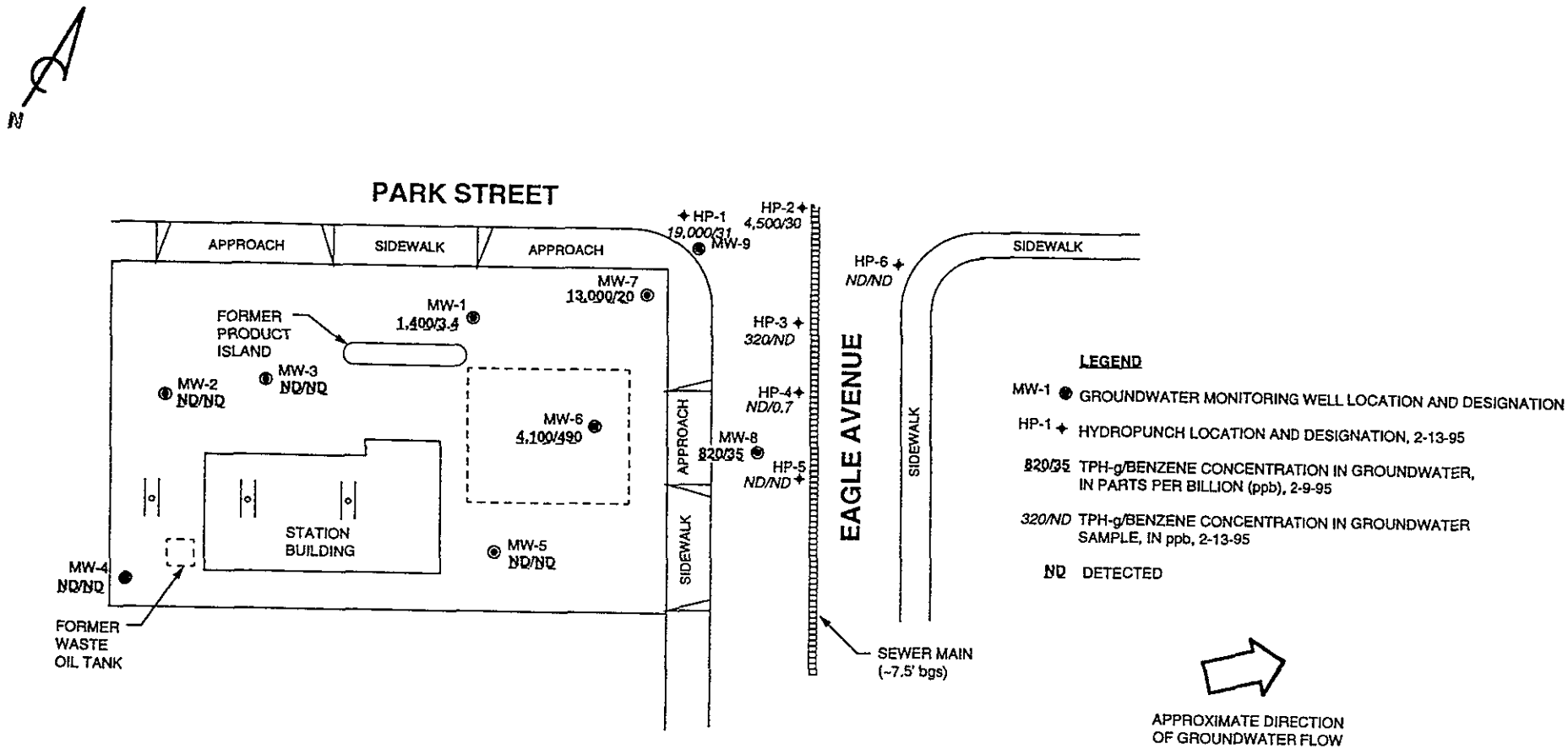
SCALE
0 20 40 FEET

ESTATE OF JOHN B. HENRY
1726 Park Street at Eagle Avenue
Alameda, California

1994 SOIL BORING MAP

FIGURE: 5

PROJECT: 286-001.6A



PACIFIC ENVIRONMENTAL GROUP, INC.

SCALE
0 20 40 FEET

ESTATE OF JOHN B. HENRY
1726 Park Street at Eagle Avenue
Alameda, California

SEWER MAIN HYDROPUNCH MAP

FIGURE:
6
PROJECT:
286-001.6A

ATTACHMENT A

RBCA SITE ASSESSMENT

RBCA SITE ASSESSMENT

Tier 1 Worksheet 6.3

Site Name: Former Texaco Service Station
Site Location: 1726 Park Street

Completed By: Michelle Shipp
Date Completed: 5/1/1996

GROUNDWATER RBSL VALUES

Target Risk (Class A & B) 1.0E-6
Target Risk (Class C) 1.0E-6
Target Hazard Quotient 1.0E+0

☐ MCL exposure limit?
☐ PEL exposure limit?

Calculation Option: 1

RBSL Results For Complete Exposure Pathways ("x" if Complete)

CONSTITUENTS OF CONCERN		Representative Concentration	Groundwater Ingestion			X Groundwater Volatilization to Indoor Air		X Groundwater Volatilization to Outdoor Air		Applicable RBSL	RBSL Exceeded ?	Required CRF
CAS No.	Name	(mg/L)	Residential (on-site)	Commercial (on-site)	Regulatory(MCL) (on-site)	Residential (on-site)	Commercial (on-site)	Residential (on-site)	Commercial (on-site)	(mg/L	"■" If yes	Only if "yes" left
71-43-2	Benzene	3.9E-3	NA	NA	NA	NA	7.4E-2	NA	1.8E+1	7.4E-2	☐	<1
0-00-0	Benzene - California	3.9E-3	NA	NA	NA	NA	2.1E-2	NA	5.3E+0	2.1E-2	☐	<1
100-41-4	Ethylbenzene	1.2E-2	NA	NA	NA	NA	>Sol	NA	>Sol	>Sol	☐	<1
108-88-3	Toluene	2.6E-3	NA	NA	NA	NA	8.5E+1	NA	>Sol	8.5E+1	☐	<1
1330-20-7	Xylene (mixed isomers)	6.5E-3	NA	NA	NA	NA	>Sol	NA	>Sol	>Sol	☐	<1

Software: GSI RBCA Spreadsheet
Version: v 1.0

Serial: G-309-OEX-828

RBCA SITE ASSESSMENT

Tier 1 Worksheet 6.2

Site Name: Former Texaco Service Station
Site Location: 1726 Park Street

Completed By: Michelle Shipp
Date Completed: 5/1/1996

SUBSURFACE SOIL RBSL VALUES (> 3 FT BGS)

Target Risk (Class A & B) 1 0E-6
Target Risk (Class C) 1 0E-6
Target Hazard Quotient 1 0E+0

☐ MCL exposure limit?
☐ PEL exposure limit?

Calculation Option: 1

RBSL Results For Complete Exposure Pathways ("x" if Complete)

CONSTITUENTS OF CONCERN		Representative Concentration	Soil Leaching to Groundwater			X Soil Volatilization to Indoor Air		X Soil Volatilization to Outdoor Air		Applicable RBSL	RBSL Exceeded ?	Required CRF
CAS No.	Name	(mg/kg)	Residential (on-site)	Commercial (on-site)	Regulatory(MCL) (on-site)	Residential (on-site)	Commercial (on-site)	Residential (on-site)	Commercial (on-site)	(mg/kg)	"■" If yes	Only if "yes" left
71-43-2	Benzene	1.7E-1	NA	NA	NA	NA	7.9E-2	NA	3.4E+1	7.9E-2	■	2.0E+00
0-00-0	Benzene - California	1.7E-1	NA	NA	NA	NA	2.3E-2	NA	1.0E+1	2.3E-2	■	7.0E+00
100-41-4	Ethylbenzene	3.5E+1	NA	NA	NA	NA	>Res	NA	>Res	>Res	☐	<1
108-88-3	Toluene	4.1E+0	NA	NA	NA	NA	9.3E+1	NA	>Res	9.3E+1	☐	<1
1330-20-7	Xylene (mixed isomers)	1.7E+2	NA	NA	NA	NA	>Res	NA	>Res	>Res	☐	<1

Software: GSI RBCA Spreadsheet
Version: v 1.0

Serial: G-309-OEX-828

ATTACHMENT B

BIBLIOGRAPHY

ATTACHMENT B
BIBLIOGRAPHY

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