HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

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QUARTERLY MONITORING REPORT, Second Quarter 1998

2415 Mariner Square Drive
Alameda, California 94501

Sampling Date: May 8, 1998

Event 6
new A

Prepared for:

Mariner Square & Associates
2900 Main Street, Suite 100
Alameda, California 94501

Union Pacific Lines, Inc.
One Market Plaza
San Francisco, California

Phillips Petroleum Company
4th and Keeler Avenue
Bartlesville, Oklahoma 74004

Texaco, Inc.
10 Universal City Plaza, Suite 830
Universal City, California 91608-7812

Prepared by:

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.
2394 Mariner Square Drive, Suite 2
Alameda, CA 94501
HETI Job No. 7-285.1

June 12, 1998

HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

2394 Mariner Square Drive, Suite 2
Alameda, California 94501
Tel 510-521-2684
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Massachusetts
New York
Maryland

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JUN 15 1998

June 12, 1998

7-285.1

Mr. John Beery
Mariner Square & Associates
2900 Main Street, Suite 100
Alameda, CA 94501

Re: 2415 Mariner Square Drive, Alameda, California

Dear Mr. Beery:

Enclosed please find a draft copy of Hydro-Environmental Technologies, Inc.'s (HETI's) Quarterly Monitoring Report for sampling conducted on May 8, 1998, at the above-referenced site. After your review, please call me and we can discuss any changes you may have. Finally, on your approval, one copy of the draft report will be mailed to each of the following: Union Pacific, Texaco, and Phillips.

As requested, the following is an Executive Summary of the recent quarter results:

- The general ground water flow direction across the site is towards the southeast and east with an approximate ground water gradient ranging from 1.02% to 1.12%.

- TPHmo was not detected in any of the eight wells sampled or in the MW-6 ground water grab sample. TPHd was detected in one of the eight wells sampled and in the MW-6 ground water grab sample. TPHg was detected in five of the eight wells sampled and in the MW-6 ground water grab sample.

- Benzene was detected in five of the eight wells sampled and met or exceeded the state MCL in three of the samples. Benzene was not detected in the MW-6 ground water grab sample.

- Vinyl chloride was not detected in any of the eight wells sampled or the MW-6 ground water grab sample.

- PNAs were not detected in any of the eight wells sampled or the MW-6 ground water grab sample.

- SPH was present in well MW-6 during the previous events ranging from a sheen to 0.55 feet. A PetroTrap™ was installed in the well on February 1998 and

removed on April 28, 1998. The PetroTrap™ recovered 4.7 liters or approximately 1.2 gallons of SPH.

- Well MW-6 was destroyed on April 28, 1998, prior to this quarter's monitoring and sampling. The well was destroyed during the excavation of hydrocarbon-bearing soil encountered during the search for a water main leak. The PetroTrap™ was removed prior to the well destruction.

- Initial soil sample results from the MW-6 excavation indicated concentrations of TPHmo ranging up to 24,000 mg/kg. Follow-up soil sample results ranged from non-detect to 8 mg/kg TPHmo. Initial TPHd results indicated concentrations ranging up to 3,200 mg/kg. Follow-up sample results were non detect. Soil results from both sample sets for TPHg, BTEX and MTBE were non-detect.

- The ground water flow direction and laboratory results from this sampling event are generally consistent with the results noted in the Quarterly Monitoring Report for the First Quarter 1998, dated March 24, 1998.

- Based upon the four quarters of ground water sampling, the hydrocarbon concentrations in ground water appear to be stable or declining. The present quarter is the fourth consecutive event required by the ACHCSA. One additional event may be necessary and could be concurrent with the hydropunch sampling required by the ACHCSA for the former MW-6 area.

- The concentrations of hydrocarbons in ground water are currently above the existing EPZ levels, but are below the proposed revised EPZ levels. With the revised levels, a request for risk-based closure should be warranted for the site.

- Based upon the requests in the ACHCSA letter dated November 10, 1997, a workplan for excavation of the pipelines adjacent to MW-5 will be submitted for review.

If you have any questions or require additional information, please feel free to call me at (510) 521-2684.

Sincerely,
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Gary M. Pischke
Senior Geologist

Enclosure

HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

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1.0 INTRODUCTION

This report presents the results of work conducted in the Second quarter of 1998 by Hydro-Environmental Technologies, Inc. (HETI) at 2415 Mariner Square Drive in Alameda, California (Figure 1). This monitoring event is the fourth consecutive quarter that ground water data was collected, evaluated and submitted to the local agencies. All work was performed in accordance with California State Water Resources Control Board and San Francisco Bay Regional Water Quality Control Board (Regional Board) recommended guidelines and procedures. A copy of HETI 's standard sampling protocols were submitted previously in HETI's Quarterly Monitoring Report, Fourth Quarter 1996 dated January 15, 1997.

2.0 BACKGROUND

The subject site is located in an area of commercial, light manufacturing and military usage immediately adjacent to and east of the Fleet Industrial Supply Center, Alameda Annex and south of the Oakland Inner Harbor. The site was reclaimed from marshlands in the late 1920's. Available maps indicate tidal channels were present in the former marshland covered by the site (Figure 2). In the past, the site was used for bulk fuel storage and distribution of refined oils, motor lubricants and fuel oils for use by ships until 1972.

Currently, the site is occupied by railroad boxcars which have been converted to offices, a restaurant and several buildings housing companies catering to the marine industry such as boat sales, storage, repairs, painting and sail manufacturing. The site no longer has bulk oils or fuel storage.

Proposed plans for the site include dividing the property into two parcels. A hotel and parking lot may be constructed on the eastern half parcel. A dry boat storage facility and parking would be constructed on the western half parcel. The western half parcel would include the existing monitoring wells and related environmental responsibility which would remain under Mariner Square and Associates.

The local geology consists primarily of clayey to silty sand (hydraulic fill) from approximately 7 to 17 feet below ground surface (bgs). Below the hydraulic fill, which was mechanically placed prior to the development of this portion of Alameda, the sediment consists of olive-grey sandy to silty clay with sand lenses, shells and organic matter from approximately 13 to 30 feet bgs (bay mud). Regional ground water flow is predominantly westerly, towards San Francisco Bay.

On November 25, 1991, AllWest Environmental, Inc. (AllWest) performed a Phase I Site Assessment of the property. AllWest recommended a soil and ground water investigation related to the fuel and oil storage, refining and distribution, and for contaminants related to boat maintenance, painting and repair. For complete details see AllWest's *Environmental Assessment* report dated December 3, 1991.

In April 1992, AllWest supervised the installation of 24 geoprobes and collecting and analyzing 23 soil samples and four ground water samples. Elevated concentrations of petroleum hydrocarbons were detected in 20 of the soil samples and two of the ground water samples with maximum concentrations of 13,000 parts per million (ppm) and 1,200 ppm, respectively. For complete details see AllWest's *Subsurface Investigation Report* dated May 1, 1992.

In 1992, Subsurface Consultants, Inc. (SCI) supervised the drilling of six soil borings and the installation of six two-inch diameter monitoring wells designated MW-1 through MW-6. Petroleum hydrocarbon concentrations were detected in all soil samples collected and analyzed from the soil borings (Subsurface Consultants, Inc., *Quarterly Groundwater Monitoring Report*, dated December 23, 1992).

On June 14, 1994, McLaren/Hart supervised the drilling of 13 soil borings, collecting and analyzing 28 soil samples and the installation of three four-inch diameter monitoring wells designated MW-7, MW-8, and MW-9. In the past, hydrocarbons were detected in ground water samples collected from wells MW-1 through MW-6, and vinyl chloride and Freon-113 were detected in ground water samples collected from wells MW-2 and MW-4 (McLaren/Hart, *Supplemental Site Investigation and Limited Feasibility Study Report*, dated March 31, 1995). All monitoring well locations are shown on Figure 2, the Site Plan.

On August 6, 1997, the two underground storage tanks were removed. Soil and ground water samples were collected by HETI from the tank excavations. Laboratory results indicated hydrocarbons were present in both soil and ground water (HETI, *Tank Removal Report*, dated November 5, 1997).

In a letter from Ms. Juliet Shin, Alameda County Health Care Services Agency (ACHCSA), dated December 26, 1995, the County required a minimum of four quarterly ground water monitoring events to delineate the plume and assure that migration is not occurring off-site or into the San Francisco Bay. Two monitoring events were performed in 1996.

In a subsequent letter and in the meeting of October 16, 1997, Ms. Juliet Shin, Mr. Larry Seto, and Ms. Madhulla Logan of the ACHCSA discussed the requirements for closure of the site. This Quarterly Monitoring Report presents the results of the fourth sampling event; the first event was the third quarter of 1997, as agreed by ACHCSA. One additional quarter of monitoring and sampling may be required to evaluate the residual risk from hydrocarbons in ground water at the site. Hydropunch testing is requested by the ACHCSA at the location of MW-6.

Closure of the site may be possible using the Regional Board's evaluation of the risk assessment for the Ecological Protection Zone (EPZ), applicable to sites within 300 feet of waters of the San Francisco Bay, performed by the Consolidated Tenant Group at the San Francisco International Airport (SFIA). The sites at SFIA have

similar conditions of fill over Bay Mud and hydrocarbon concentrations. The Regional Board has used the EPZ levels for site cleanup and closure evaluation at SFIA and proposes to use them for other locations around the Bay Area.

3.0 FIELD ACTIVITIES

3.1 Ground Water Monitoring and Sampling

On May 8, 1998, the site monitoring wells were gauged for depth to first encountered ground water to the nearest hundredth of a foot using an electronic water sounder. Following gauging, all monitoring wells were purged of a minimum of three well volumes or purged dry while pH, temperature and conductivity measurements were monitored for stabilization.

Purged water was stored on-site in two 55-gallon DOT drums with tight fitting lids. Gauging and purging data are included in Table 1 and Appendix A.

Following recovery of the water levels to at least 80% of their static level, ground water samples were collected from the monitoring wells using dedicated polyethylene bailers. Samples were then labeled, documented on a chain-of-custody form, and stored in a chilled cooler for transport to the analytical laboratory.

Ground water samples were analyzed for the following:

- total petroleum hydrocarbons as diesel (TPHd), motor oil (TPHmo) and gasoline (TPHg) by GC-FID using EPA Method 3510 for extraction, and EPA 3630M for silica gel cleanup and filtration;
- benzene, toluene, ethylbenzene and total xylenes (BTEX), and methyl-tert butyl ether (MTBE) using EPA method 8020;
- polynuclear aromatics (PNAs) by EPA Method 8310; and
- vinyl chloride by EPA Method 8010.

The sample analyses were performed by American Environmental Network (AEN), a state of California DHS-certified laboratory located in Pleasant Hill, California.

Well MW-6 was destroyed during excavation of adjacent soil on April 28, 1998, prior to the quarterly event. A ground water grab sample was collected from the excavation after the destruction of the well.

During the three previous monitoring events, separate phase hydrocarbons (SPH) was detected in well MW-6. A PetroTrap™ was installed in MW-6 on February 16, 1998. The amount of SPH recovered from the PetroTrap™ is summarized in Table 3. The PetroTrap™ was removed on April 28, 1998, prior to destruction of the well.

3.2 MW-6 Excavation Soil and Ground water Sampling

The area south of MW-6 was excavated to evaluate a water main leak and the extent of hydrocarbons in soil. The excavation was performed to remove hydrocarbon-bearing soil adjacent to MW-6, which historically has had SPH. The excavation was performed on April 28 and completed on May 4, 1998. The area of excavation is shown on Figure 2.

Soil samples were collected on April 28, 1998 from the excavation sidewalls and from the area with the most staining and observable contamination. Additional soil samples were collected on May 4, 1998 at the request of ACHCSA after review of the initial sample results. A ground water grab sample was collected from water ponded in the excavation.

The soil samples were analyzed for the following:

- total petroleum hydrocarbons as diesel (TPHd), motor oil (TPHmo) and gasoline (TPHg) by GC-FID using EPA Method 3510 for extraction, and EPA 3630M for silica gel cleanup and filtration; and
- benzene, toluene, ethylbenzene and total xylenes (BTEX), and methyl-tert butyl ether (MTBE) using EPA method 8020.

The grab ground water sample was analyzed for the following:

- total petroleum hydrocarbons as diesel (TPHd), motor oil (TPHmo) and gasoline (TPHg) by GC-FID using EPA Method 3510 for extraction, and EPA 3630M for silica gel cleanup and filtration;
- benzene, toluene, ethylbenzene and total xylenes (BTEX), and methyl-tert butyl ether (MTBE) using EPA method 8020;
- polynuclear aromatics (PNAs) by EPA Method 8310; and
- vinyl chloride by EPA Method 8010.

The sample analyses were performed by American Environmental Network (AEN), a state of California DHS-certified laboratory located in Pleasant Hill, California.

4.0 RESULTS

4.1 Ground Water Elevation

On May 8, 1998, depth to first encountered ground water in the wells ranged between 3.47 to 5.30 feet below the top of the well casing. Depth to water measurements and calculated ground water elevations in the wells are presented on Table 1. The depth to water measurements and the wellhead elevation data were used to calculate ground water elevation contours. These contours are shown on Figure 3, the Ground Water Contour Map. Figure 3 shows that ground water flows towards the southeast and east, with a ground water gradient of 1.02% to 1.12%.

4.2 Ground Water Sample Analytical Results

The analytical results indicated that dissolved TPHd was present in the ground water samples collected from only one of the eight wells sampled, MW-9 at 130 µg/L. In the grab ground water sample collected from the excavation adjacent to MW-6 on April 28, 1998, TPHd was also detected at 920 µg/L. The analytical results are summarized in Tables 1 and 2, and a copy of the laboratory report is included in Appendix B.

TPHmo was not detected above the indicated laboratory method detection limit in the ground water samples collected from the eight wells or from the MW-6 ground water grab sample.

TPHg was detected above the indicated laboratory method detection limit in the ground water samples collected from five of the eight wells in concentrations ranging from 70 (MW-9) to 3,900 µg/L (MW-5). TPHg was detected at 800 µg/L in the MW-6 ground water grab sample. TPHg was not detected above the laboratory method detection limit in wells MW-1, MW-3 and MW-8. These results are shown on Figure 4, the TPHg Isoconcentration Map.

Benzene was detected above the indicated laboratory method detection limit in the ground water samples collected from five of the eight wells in concentrations ranging from 0.6 (MW-3) to 8 µg/L (MW-5). Benzene was not detected in the MW-6 ground water grab sample. These results are shown on Figure 5, the Benzene Isoconcentration Map.

MTBE was detected above the indicated laboratory method detection limit in the ground water samples collected from three of the eight wells in concentrations ranging from 16 (MW-9) to 34 µg/L (MW-7). MTBE was not detected in the MW-6 ground water grab sample

Vinyl chloride was not detected above the indicated laboratory method detection limit in any of the wells sampled or the MW-6 ground water grab sample.

Concentrations of polynuclear aromatics (PNAs) were not detected above the indicated laboratory method detection limits in the ground water samples collected from the wells or the MW-6 ground water grab sample. These results are shown on Figure 6, The Polynuclear Aromatics Distribution Map.

The California Department of Health Services (DHS) and the U.S. Environmental Protection Agency's (EPA) Drinking Water Standards, primary maximum contaminant levels (MCLs) for benzene are 1 µg/l and 5 µg/l, respectively. The state and federal MCLs for vinyl chloride are 0.5 µg/l and 2 µg/l, respectively. There are no state or federal MCLs for TPHd, TPHmo, or TPHg. The MCLs are listed on Tables

1 and 2 for comparison purposes. The DHS MCL, 1 µg/l, for benzene, was equaled or exceeded in three wells (MW-1, MW-5 and MW-7).

As a comparison, the risk-based standards for TPHg, TPHd, BTEX and vinyl chloride in ground water from San Francisco International Airport are included on Table 1. The standard shown is for the EPZ sites within 300 feet of waters of the San Francisco Bay. The present EPZ value for TPHg, 100 µg/l, was exceeded in four wells. The revised EPZ value for TPHg, 9,150 µg/l, was not exceeded in any of the eight wells or the MW-6 ground water grab sample. The EPZ value for benzene, 71 µg/l, was not exceeded in any of the eight wells sampled or the MW-6 ground water grab sample.

The U.S. EPA National Ambient Water Quality Criteria for Saltwater Aquatic Life Protection are included in Table 2 for the evaluation of PNAs. The PNAs were reported as non-detect. None of the Water Quality Criteria were exceeded.

4.3 MW-6 Excavation Soil Sample Analytical Results

The initial soil sample analytical results indicated TPHmo at concentrations ranging from 41 milligrams per kilogram (mg/kg) to 24,000 mg/kg. The follow-up soil samples' results indicated concentrations of TPHmo ranging from non-detectable (less than 5 mg/kg) to 8 mg/kg. The soil sample results are summarized in Table 4. Sample locations are shown on Figure 7.

TPHd was reported in the initial excavation samples at concentrations ranging from non-detectable (less than 9 mg/kg) to 3,200 mg/kg. The follow-up soil samples' results were non-detectable (less than 1 mg/kg) for TPHd.

No TPHg, BTEX, or MTBE was reported above the detection limit in either set of samples.

As a comparison, the risk-based standards for TPHg, TPHd, BTEX and TPHmo from San Francisco International Airport are included on Table 4. The standard shown is for the EPZ sites within 300 feet of waters of the San Francisco Bay. The April 28, 1998 initial sample results had concentrations above the present and revised EPZ values for TPHd and TPHmo. The May 4, 1998 follow-up samples results had concentrations less than the present and revised EPZ values.

5.0 SUMMARY AND CONCLUSIONS

- The general ground water flow direction across the site is towards the southeast and east with an approximate ground water gradient ranging from 1.02% to 1.12%.

- TPHmo was not detected in any of the eight wells sampled or in the MW-6 ground water grab sample. TPHd was detected in one of the eight wells sampled

and in the MW-6 ground water grab sample. TPHg was detected in five of the eight wells sampled and in the MW-6 ground water grab sample.

- Benzene was detected in five of the eight wells sampled and met or exceeded the state MCL in three of the samples. Benzene was not detected in the MW-6 ground water grab sample.

- Vinyl chloride was not detected in any of the eight wells sampled or the MW-6 ground water grab sample.

- PNAs were not detected in any of the eight wells sampled or the MW-6 ground water grab sample.

- SPH was present in well MW-6 during the previous events ranging from a sheen to 0.55 feet. A PetroTrap™ was installed in the well on February 1998 and removed on April 28, 1998. The PetroTrap™ recovered 4.7 liters or approximately 1.2 gallons of SPH.

- Well MW-6 was destroyed on April 28, 1998, prior to this quarter's monitoring and sampling. The well was destroyed during the excavation of hydrocarbon-bearing soil encountered during the search for a water main leak. The PetroTrap™ was removed prior to the well destruction.

- Initial soil sample results from the MW-6 excavation indicated concentrations of TPHmo ranging up to 24,000 mg/kg. Follow-up soil sample results ranged from non-detect to 8 mg/kg TPHmo. Initial TPHd results indicated concentrations ranging up to 3,200 mg/kg. Follow-up sample results were non detect. Soil results from both sample sets for TPHg, BTEX and MTBE were non-detect.

- The ground water flow direction and laboratory results from this sampling event are generally consistent with the results noted in the Quarterly Monitoring Report for the First Quarter 1998, dated March 24, 1998.

- Based upon the four quarters of ground water sampling, the hydrocarbon concentrations in ground water appear to be stable or declining. The present quarter is the fourth consecutive event required by the ACHCSA. One additional event may be necessary and could be concurrent with the hydropunch sampling required by the ACHCSA for the former MW-6 area.

- The concentrations of hydrocarbons in ground water are currently above the existing EPZ levels, but are below the proposed revised EPZ levels. With the revised levels, a request for risk-based closure should be warranted for the site.

- Based upon the requests in the ACHCSA letter dated November 10, 1997, a workplan for excavation of the pipelines adjacent to MW-5 will be submitted for review.

6.0 CERTIFICATION

This report was prepared under the supervision of a registered geologist. All statements, conclusions and recommendations are based solely upon field observations and analytical analyses performed by a state-certified laboratory related to the work performed by Hydro-Environmental Technologies, Inc.

It is possible that variations in the soil or ground water conditions exist beyond the points explored in this investigation. Also, site conditions are subject to change at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

The service performed by Hydro-Environmental Technologies, Inc. has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

Hydro-Environmental Technologies, Inc. includes in this report chemical analytical data from a state-certified laboratory. These analyses are performed according to procedures suggested by the U.S. EPA and the State of California. Hydro-Environmental Technologies, Inc. is not responsible for laboratory errors in procedure or result reporting.

Prepared by:

Gary Pischke, C.E.G.
Senior Geologist

REGISTERED GEOLOGIST
GARY PISCHKE
No. 1501
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Reviewed by:

Michael Zimmerman, P.E.
Western Regional Manager

TABLES

Table 1

GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well I.D. #	Sample Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHmo (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Vinyl Cl (µg/L)
MW-1 (SCI)	7/30/92	5.08	6.41	-1.33	--	--	--	--	--	--	--	--	--
	7/31/92	5.08	6.41	-1.33	--	--	--	--	--	--	--	--	--
	8/3/92	5.08	6.50	-1.42	580	ND<5000	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
	8/5/92	5.08	6.50	-1.42	--	--	--	--	--	--	--	--	--
	11/20/92	5.08	6.23	-1.15	600	ND<5000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	ND<2
	6/13/94	11.99	5.69	6.30	--	--	--	--	--	--	--	--	--
	9/27/94	11.99	5.64	6.35	530	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--
	10/25/94	11.99	5.86	6.13	--	--	--	--	--	--	--	--	--
	6/28/96	11.99	5.34	6.65	ND<50	ND<200 (1)	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<2.0	--	ND<0.5
	10/31/96	11.99	5.38	6.61	93	ND<200	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<2.0	ND<10	ND<1.0
	9/30/97	11.99	5.08	6.91	ND<50	ND<200	120	4.7	ND<1.0	3.7	21	ND<10	ND<0.8
	12/12/97	11.99	4.16	7.83	ND<50	ND<200	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<5	ND<2
	2/18/98	11.99	2.97	9.02	ND<50	ND<200	ND<50	1.5	0.6	1.8	8	ND<5	ND<2
	5/8/98	11.99	4.55	7.44	ND<50	ND<200	ND<50	1.0	ND<0.5	0.7	5	ND<5	ND<2
MW-2 (SCI)	7/30/92	8.30	5.98	2.32	--	--	--	--	--	--	--	--	--
	7/31/92	8.30	6.07	2.23	--	--	--	--	--	--	--	--	--
	8/3/92	8.30	6.11	2.19	2,200	ND<5000	--	ND<0.5	6.5	3.2	5.3	--	--
	8/5/92	8.30	6.18	2.12	--	--	--	--	--	--	--	--	--
	11/20/92	8.30	6.42	1.88	2,100	ND<5000	340	ND<0.5	ND<0.5	ND<0.5	2.4	--	ND<2
	6/13/94	15.21	5.92	9.29	--	--	--	--	--	--	--	--	--
	9/26/94	15.21	6.51	8.70	ND<50	240	320	ND<3.0	ND<3.0	ND<3.0	ND<3.0	--	--
	10/25/94	15.21	6.67	8.54	--	--	--	--	--	--	--	--	--
	6/28/96 (2)	15.21	5.68	9.53	100 (3,4)	ND<200 (1)	980	0.5	ND<1.0	2.3	3.1	--	ND<0.5
	10/31/96	15.21	6.37	8.84	180	ND<200	220	ND<0.5	ND<1.0	ND<1.0	ND<2.0	ND<10	ND<1.0
	9/30/97	15.21	6.17	9.04	150 (8)	ND<200	900	0.8	ND<1.0	2	6.2	ND<10	ND<0.8
	12/12/97	15.21	5.18	10.03	ND<50	ND<200	360	1.1	ND<0.5	2.2	3	ND<5	ND<2
	2/18/98	15.21	3.96	11.25	ND<50	ND<200	90	ND<0.5	ND<0.5	1.1	2	ND<5	ND<2

Table 1

GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well I.D. #	Sample Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHmo (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Vinyl Cl (µg/L)
MW-2	5/8/98	15.21	4.82	10.39	ND<50	ND<200	170	ND<0.5	ND<0.5	1.7	3	ND<5	ND<2
MW-3 (SCI)	7/30/92	7.28	4.97	2.31	--	--	--	--	--	--	--	--	--
	7/31/92	7.28	5.05	2.23	--	--	--	--	--	--	--	--	--
	8/3/92	7.28	4.43	2.85	1,000	ND<5000	--	ND<0.5	1	ND<0.5	2.4	--	--
	8/5/92	7.28	5.06	2.22	--	--	--	--	--	--	--	--	--
	11/20/92	7.28	5.27	2.01	2,000	ND<5000	98	ND<0.5	ND<0.5	0.9	1	--	ND<2
	6/13/94	14.19	4.91	9.28	--	--	--	--	--	--	--	--	--
	9/27/94	14.19	5.29	8.90	720	ND<50	ND<50	ND<3.0	ND<0.3	ND<0.3	ND<0.3	--	--
	10/25/94	14.19	5.42	8.77	--	--	--	--	--	--	--	--	--
	6/28/96	14.19	4.69	9.50	120 (3)	ND<200 (1)	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<2.0	--	ND<0.5
	10/31/96	14.19	5.24	8.95	160	ND<200	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<2.0	ND<10	ND<1.0
	9/30/97	14.19	5.04	9.15	70 (8)	ND<200	ND<100	0.8	ND<1.0	ND<1.0	3.3	ND<10	ND<0.8
	12/12/97	14.19	4.32	9.87	ND<50	ND<200	80	0.7	ND<0.5	0.7	4	9	ND<2
	2/18/98	14.19	2.97	11.22	ND<50	ND<200	60	ND<0.5	ND<0.5	ND<0.5	4	7	ND<2
	5/8/98	14.19	3.85	10.34	ND<50	ND<200	ND<50	0.6	ND<0.5	0.5	4	ND<5	ND<2
MW-4 (SCI)	7/30/92	7.05	4.81	2.24	--	--	--	--	--	--	--	--	--
	7/31/92	7.05	4.88	2.17	--	--	--	--	--	--	--	--	--
	8/5/92	7.05	4.96	2.09	1,300	ND<5000	--	16	2.6	0.6	2.7	--	9
	11/20/92	7.05	5.13	1.92	2,400	ND<5000	330	31	5.2	0.7	2	--	13
	6/13/94	13.95	4.50	9.45	--	--	--	--	--	--	--	--	--
	9/27/94	13.95	5.39	8.56	890	ND<50	ND<50	12	0.43	ND<0.3	ND<0.3	--	--
	10/25/94	13.95	5.55	8.40	--	--	--	--	--	--	--	--	--
	6/28/96	13.95	4.25	9.70	170 (3,4)	ND<200 (1)	180	4	ND<1.0	ND<1.0	ND<2.0	--	2.5
	10/31/96	13.95	5.05	8.90	330	ND<200	110	6.2	ND<1.0	ND<1.0	ND<2.0	ND<10	4.3
	9/30/97	13.95	4.73	9.22	170 (8)	ND<200	650	3.9	ND<1.0	ND<1.0	ND<2.0	460	3.1
	12/12/97	13.95	3.65	10.30	ND<50	ND<200	260	4.9	0.9	ND<0.5	ND<2.0	320	3

Table 1

GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well I.D. #	Sample Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHmo (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Vinyl Cl (µg/L)
MW-4	2/18/98	13.95	2.38	11.57	ND<50	ND<200	240	7.9	1.1	2.1	10	290	2
	5/8/98	13.95	3.47	10.48	ND<50	ND<200	90	0.9	0.5	0.8	5	30	ND<2
MW-5 (SCI)	7/30/92	7.68	5.30	2.38	--	--	--	--	--	--	--	--	--
	7/31/92	7.68	5.42	2.26	--	--	--	--	--	--	--	--	--
	8/3/92	7.68	5.40	2.28	2,200	ND<5000	--	9	6	49	11	--	--
	8/5/92	7.68	5.47	2.21	--	--	--	--	--	--	--	--	--
	11/20/92	7.68	5.74	1.94	1,500	ND<5000	4,800	7.6	12	5.8	26	--	ND<2
	6/13/94	14.60	5.30	9.30	--	--	--	--	--	--	--	--	--
	9/26/94	14.60	5.82	8.78	780	ND<500	3,100	7.9	11	8.7	14	--	--
	10/25/94	14.60	5.95	8.65	--	--	--	--	--	--	--	--	--
	6/28/96	14.60	5.04	9.56	610 (3,4)	790 (1)	5,000	1.2	6.8	21	14	--	ND<0.5
	10/31/96	14.60	5.73	8.87	4,900	860	6,800	20	5.9	15	19	ND<10	ND<1.0
	9/30/97	14.60	5.45	9.15	4100 (8)	520	9,000	35	5.3	36	32	12	ND<0.8
	12/12/97	14.60	4.71	9.89	90	ND<200	3,400	26	4.6	5.9	13	11	ND<2
	2/18/98	14.60	3.10	11.50	ND<50	ND<200	3,200	7.9	1.4	14	12	ND<5	ND<2
	5/8/98	14.60	4.13	10.47	ND<50	ND<200	3,900	8	22	19	10	ND<5	ND<2
MW-6	5/25/93	--	--	--	2,700,000	--	460	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<10
	6/13/94	14.81	5.96	8.85	--	--	--	--	--	--	--	--	--
	9/27/94	14.81	5.90	8.91	9,900	3,200	1,100	ND<3.0	ND<3.0	ND<3.0	ND<3.0	--	--
	10/7/94	14.81	5.82	8.99	--	--	--	--	--	--	--	--	--
	10/14/94	14.81	5.89	8.92	--	--	--	--	--	--	--	--	--
	10/21/94	14.81	5.90	8.91	--	--	--	--	--	--	--	--	--
	10/25/94	14.81	5.99	8.82	--	--	--	--	--	--	--	--	--
	6/28/96	14.81	5.33	9.48	SPH (0.16')	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	10/31/96	14.81	5.17	9.64	SPH (0.02')	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	9/30/97	14.81	5.58	9.23	Sheen	--	--	--	--	--	--	--	--

Table 1

GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS

Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well I.D. #	Sample Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHmo (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Vinyl Cl (µg/L)
SPH (0.39')	12/12/97	14.81	4.84	9.97	1,900,000	430,000	21,000	5	ND<0.5	8	19	ND<50	ND<2
SPH (0.55')	2/18/98	14.81	3.70	11.11	ND<50	ND<200	70,000	20	20	20	70	ND<100	ND<2
MW-6	4/28/98	-- (9)	--	--	920	ND<200	800	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<5	ND<2
MW-7	9/27/94	13.61	5.95	7.66	1,800	ND<250	ND<250	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--
	10/25/94	13.61	6.09	7.52	--	--	--	--	--	--	--	--	--
	6/28/96	13.61	5.42	8.19	490 (3,4)	ND<200 (1)	560	0.6	ND<1.0	ND<1.0	2.7	--	ND<0.5
	10/31/96	13.61	5.90	7.71	420	ND<200	200	1.1	ND<1.0	ND<1.0	ND<2.0	ND<10	ND<1.0
	9/30/97	13.61	5.71	7.90	190 (8)	ND<200	750	8.1	5.3	ND<1.0	6.9	ND<10	ND<0.8
	12/12/97	13.61	4.58	9.03	ND<50	ND<200	420	7.9	ND<0.5	ND<0.5	5	ND<5	ND<2
	2/18/98	13.61	3.21	10.40	ND<50	ND<200	650	9.5	0.6	ND<0.5	6	16	ND<2
(10)	5/8/98	13.61	4.49	9.12	ND<50	ND<200	710	3.4	4.8	0.8	7	34	ND<2
MW-8	9/27/94	12.64	6.06	6.58	320	ND<50	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--
	10/25/94	12.64	6.26	6.38	--	--	--	--	--	--	--	--	--
	6/28/96	12.64	6.00	6.64	58 (3)	ND<200 (1)	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<2.0	--	ND<0.5
	10/31/96	12.64	5.85	6.79	120	ND<200	ND<100	ND<0.5	ND<1.0	ND<1.0	ND<2.0	ND<10	ND<1.0
	9/30/97	12.64	5.60	7.04	70 (8)	ND<200	110	4.2	ND<1.0	3.4	16	ND<10	ND<0.8
	12/12/97	12.64	4.87	7.77	ND<50	ND<200	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<2.0	15	ND<2
	2/18/98	12.64	3.80	8.84	ND<50	ND<200	ND<50	0.9	ND<0.5	0.8	3	ND<5	ND<2
	5/8/98	12.64	5.30	7.34	ND<50	ND<200	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<5	ND<2
MW-9	9/26/94	14.92	5.88	9.04	2,200	ND<500	ND<500	ND<0.3	ND<0.3	ND<0.3	ND<0.3	--	--
	10/25/94	14.92	6.04	8.88	--	--	--	--	--	--	--	--	--
	6/28/96	14.92	5.14	9.78	550 (3,4)	ND<200 (1)	390	5.2	ND<1.0	ND<1.0	ND<2.0	--	ND<0.5
	10/31/96	14.92	6.37	8.55	590.	720	300	5.9	ND<1.0	ND<1.0	ND<2.0	ND<10	ND<1.0
	9/30/97	14.92	5.59	9.33	460 (8)	ND<200	150	0.6	ND<1.0	ND<1.0	2.7	ND<10	ND<0.8
	12/12/97	14.92	4.53	10.39	ND<50	ND<200	180	ND<0.5	ND<0.5	ND<0.5	ND<2.0	ND<5	ND<2

Table 1

GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well I.D. #	Sample Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHmo (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Vinyl Cl (µg/L)
MW-9	2/18/98	14.92	3.12	11.80	ND<50	ND<200	100	ND<0.5	0.5	ND<0.5	ND<2.0	6	ND<2
	5/8/98	14.92	4.20	10.72	130	ND<200	70	ND<0.5	ND<0.5	ND<0.5	ND<2.0	16	ND<2
CA Primary MCL (5)					--	--	--	1	100 (7)	680	1,750	35 (7)	0.5
Federal Primary MCL (6)					--	--	--	5	1,000	700	10,000	--	2
Saltwater Ecological Protection Zone Tier 1 (SFIA)					100	--	100	71	43	5000	2,200	--	17
Saltwater Ecological Protection Zone 1997 (SFIA)					393	site specific	9,150	71	86	5000	2,200	--	17

Table 1

GROUND WATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
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Alameda, CA

Well I.D. #	Sample Date	TOC (feet)	DTW (feet)	GWE (feet)	TPHd (µg/L)	TPHmo (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	Vinyl Cl (µg/L)

Notes:

TOC : Top of well casing referenced to mean sea level. Survey conducted by a state-licensed surveyor.
DTW : Depth to water.
GWE : Ground water elevation.
TPHg : Total petroleum hydrocarbons as gasoline by EPA Method 8015 (modified).
BTEX : Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020.
TPHd : Total petroleum hydrocarbons as diesel by EPA Method 8015 (modified).
TPHmo : Total Petroleum Hydrocarbons as lubricating oil by Cal LUFT manual DHS method with EPA 3630 (modified)- silica gel cleanup.
Vinyl Cl : Vinyl chloride by EPA Method 524.2.
µg/L : Micrograms per Liter.
--- : Not analyzed/sampled.
ND : Not detected above the indicated laboratory method detection limit.
(SPH) : Separate phase hydrocarbons - No sample collected.
(1) : Lubricating oil can not be qualitatively identified by type of oil because of chromatographic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may never be quantified by this gas chromatographic method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-40 standards. For the most accurate analysis of lubricating oil, an infrared method is recommended.
(2) : Water sample collected from MW-2 was analyzed for Freon 113 by EPA Method 8010A. Results were below the detection limit of 1.0 µg/L.
(3) : Qualitative identification is uncertain because the material present does not match laboratory standards.
(4) : Quantitation uncertain due to matrix interferences.
(5) : Drinking Water Standards, California Department of Health Services, Primary Maximum Contaminant Level (MCL).
(6) : Drinking Water Standards, U.S. Environmental Protection Agency, Primary Maximum Contaminant Level (MCL).
(7) : California State Action Level, Department of Health Services.
(8): Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards.
(9): Well destroyed during excavation for free product source; ground water grab sample from excavation.
(10): EPA 8010 Result: 0.9 µg/L Tetrachloroethene reported by lab. on vinyl chloride sample unedited run.
SFIA San Francisco International Airport standards from Board Order 95-136 and modifications by Consolidated Tenant Group and Regional Board.
[ ] = The analytical result is greater than the CA Primary MCL value, or EPZ limit

Table 2
POLYNUCLEAR AROMATICS SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well No.	Sample Date	Naph-thalene µg/L	Acenaph-thylene µg/L	Acenaph-thene µg/L	Fluorene µg/L	Phenan-threne µg/L	Anthra-cene µg/L	Fluoran-thene µg/L	Pyrene µg/L
MW-1	6/28/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	9/30/97	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	12/12/97	0.6	ND<1.0	ND<0.5	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	2.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
MW-2	6/28/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	0.82	0.77
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	9/30/97	ND<2.0	12.0	3.3	ND<2.0	ND<1.0	ND<1.0	1.0	1.1
	12/12/97	ND<0.5	ND<1.0	ND<0.5	ND<0.1	ND<0.1	ND<0.1	0.2	0.3
	2/18/98	ND<1.0	8.0	5.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
MW-3	6/28/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	9/30/97	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	12/12/97	0.6	ND<1.0	ND<0.5	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
MW-4	6/28/96	ND<2.0	2.5	2.3	ND<2.0	ND<1.0	ND<1.0	1.8	2.1
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	0.92	1.6
	9/30/97	ND<2.0	ND<2.0	3.7	ND<2.0	ND<1.0	ND<1.0	1.5	1.9
	12/12/97	0.8	ND<1.0	ND<0.5	ND<0.1	ND<1.0	ND<0.1	0.4	0.4
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0

Table 2
POLYNUCLEAR AROMATICS SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well No.	Sample Date	Naph-thalene µg/L	Acenaph-thylene µg/L	Acenaph-thene µg/L	Fluorene µg/L	Phenan-threne µg/L	Anthra-cene µg/L	Fluoran-thene µg/L	Pyrene µg/L
MW-5	6/28/96	2.0	96 (1)	3.0	ND<2.0	9.5	2.3	8.6	8.4
	10/31/96	ND<2.0	150	8.3	2.4	14	2.9	11	15
	9/30/97	2.6	100.0	11.0	5.0	16.0	3.9	15.0	16.0
	12/12/97	ND<0.5	ND<1.0	1.0	0.8	2.9	0.6	1.7	1.2
	2/18/98	ND<1.0	150.0	170.0	6.0	3.0	2.0	11.0	7.0
	5/8/98	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0
MW-6	6/28/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	10/31/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	9/30/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	12/12/97	ND<100	ND<200	ND<100	90.0	80.0	ND<20	250.0	40.0
	2/18/98	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	90.0	110.0
Destroyed	4/28/98	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
MW-7	6/28/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	9/30/97	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	12/12/97	1.0	ND<1.0	ND<0.5	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0
MW-8	6/28/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	9/30/97	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	ND<0.5
	12/12/97	0.6	ND<1.0	ND<0.5	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0

Table 2
POLYNUCLEAR AROMATICS SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well No.	Sample Date	Naph-thalene µg/L	Acenaph-thylene µg/L	Acenaph-thene µg/L	Fluorene µg/L	Phenan-threne µg/L	Anthra-cene µg/L	Fluoran-thene µg/L	Pyrene µg/L
MW-9	6/28/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	0.73	ND<0.5
	10/31/96	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	0.69	1.10
	9/30/97	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<1.0	ND<1.0	ND<0.5	0.56
	12/12/97	1.4	ND<1.0	ND<0.5	0.2	ND<0.1	0.2	0.6	0.3
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
CA Primary MCLs (2)		--	--	--	--	--	--	--	--
EPA Primary MCLs (3)		--	--	--	--	--	--	--	--
EPA Saltwater Tox. (4)		2350.0	300.0	500.0	300.0	300.0	300.0	16.0	300.0

Table 2
POLYNUCLEAR AROMATICS SAMPLE ANALYTICAL RESULTS
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Alameda, CA

Well No.	Sample Date	Benzo[a]-anthracene µg/L	Chrysene µg/L	Benzo[b]fluor-anthene µg/L	Benzo[k]fluor-anthene µg/L	Benzo[a]-pyrene µg/L	Dibenzo[a,h]-anthracene µg/L	Benzo[g,h,i]-perylene µg/L	Indeno[1,2,3-cd]-pyrene µg/L
MW-1	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
MW-2	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
MW-3	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
MW-4	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0

Table 2
POLYNUCLEAR AROMATICS SAMPLE ANALYTICAL RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Well No.	Sample Date	Benzo[a]-anthracene µg/L	Chrysene µg/L	Benzo[b]fluor-anthene µg/L	Benzo[k]fluor-anthene µg/L	Benzo[a]-pyrene µg/L	Dibenzo[a,h]-anthracene µg/L	Benzo[g,h,i]-perylene µg/L	Indeno[1,2,3-cd]-pyrene µg/L
MW-5	6/28/96	1.0	0.68	ND<0.5	ND<0.5	0.78	ND<0.5	0.57	ND<0.5
	10/31/96	1.9	1.8	0.51	ND<0.5	0.84	ND<0.5	ND<0.5	ND<0.5
	9/30/97	2.1	2.5	ND<0.5	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	1.0	2.0	ND<1.0	ND<1.0	1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0
MW-6	6/28/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	10/31/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	9/30/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
	12/12/97	25.0	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20	ND<20
	2/18/98	ND<20	190.0	130.0	ND<20	70.0	62.0	23.0	ND<20
Destroyed	4/28/98	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10
MW-7	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0	ND<6.0
MW-8	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0

Table 2

POLYNUCLEAR AROMATICS SAMPLE ANALYTICAL RESULTS

Mariner Square & Associates

2415 Mariner Square Drive

Alameda, CA

Well No.	Sample Date	Benzo[a]-anthracene µg/L	Chrysene µg/L	Benzo[b]fluor-anthene µg/L	Benzo[k]fluor-anthene µg/L	Benzo[a]-pyrene µg/L	Dibenzo[a,h]-anthracene µg/L	Benzo[g,h,i]-perylene µg/L	Indeno[1,2,3-cd]-pyrene µg/L
MW-9	6/28/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	10/31/96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	9/30/97	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	12/12/97	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1	ND<0.1
	2/18/98	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	5/8/98	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0	ND<3.0
CA Primary MCLs (2)		--	--	--	--	--	--	--	--
EPA Primary MCLs (3)		0.1	0.2	0.2	0.2	0.2	0.3	--	0.4
EPA Saltwater Tox. (4)		300.0	300.0	300.0	300.0	300.0	300.0	--	300.0

Notes:

Polynuclear Aromatics: Polynuclear Aromatics by EPA Method 8310.

Well No. : Well identification number used by HETI.

Date: Date ground water sample was collected.

µg/L : Micrograms per liter (ppb).

ND : Not detected in concentrations exceeding the laboratory method detection limit.

(1) : The qualitative identification for Acenaphthylene is uncertain due to matrix interferences.

(2) : Drinking Water Standards, California Department of Health Services, Primary Maximum Contaminant Level (MCL).

(3) : Drinking Water Standards, U.S. Environmental Protection Agency, Primary Maximum Contaminant Level (MCL).

(4) : National Ambient Water Quality Criteria, U.S. Environmental Protection Agency, Saltwater Aquatic Life Protection, Additional Tox.

SPH : Separate phase hydrocarbons - No sample collected.

[ ] = The analytical result is greater than the MCL value.

Table 3
Product Recovered from MW-6
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Date	Amount Recovered	
	liters	gallons
2/23/98	0.7	
2/25/98	0.2	
3/2/98	0.2	
3/11/98	0.1	
3/19/98	0.7	
3/25/98	0.7	
3/30/98	0.7	
4/9/98	0.7	
4/16/98	0.7	
Total:	4.7	1.24

PetroTrap installed on 2/16/98
PetroTrap removed on 4/28/98

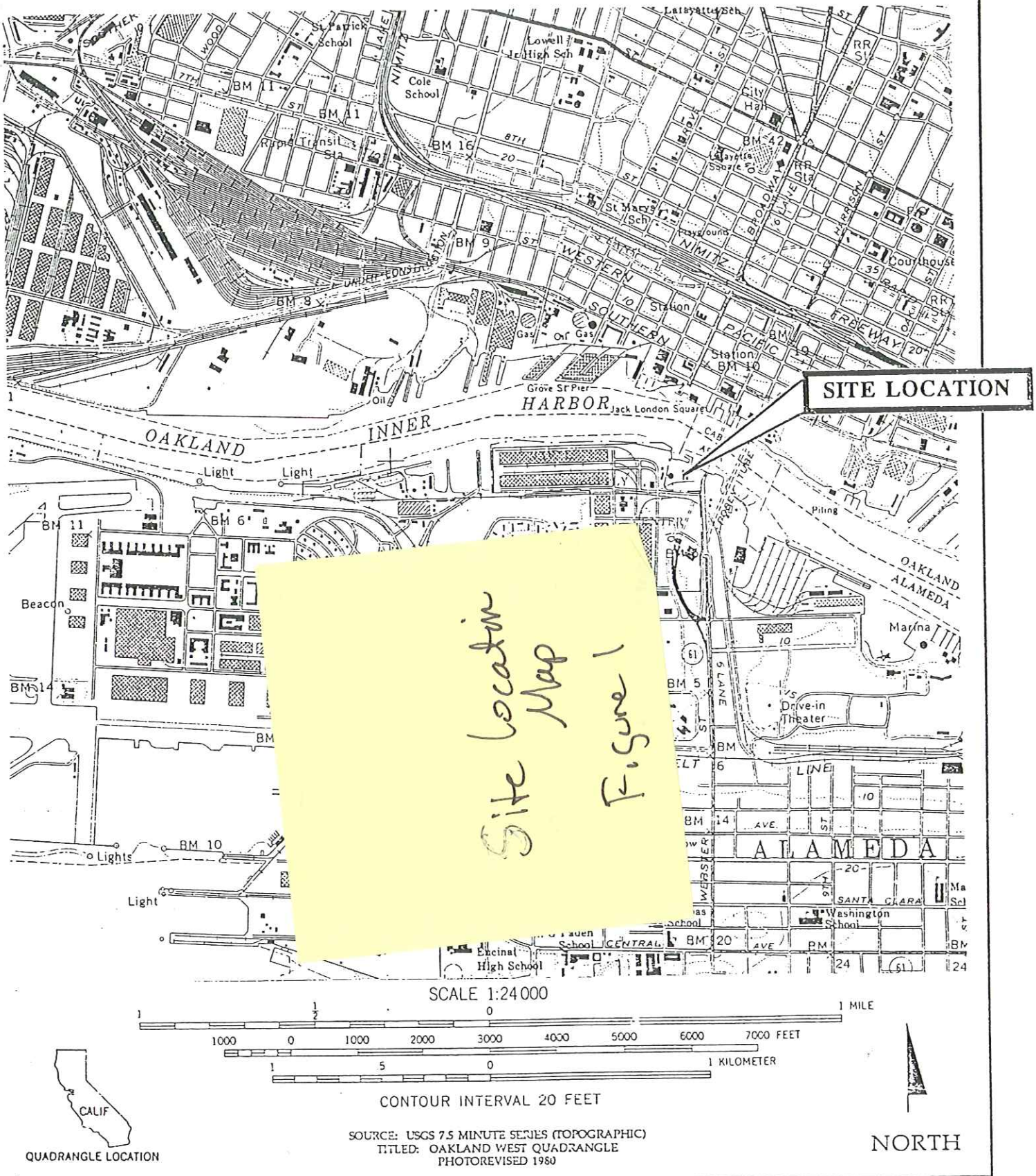
TABLE 4

SOIL SAMPLE RESULTS
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, CA

Sample No.	Depth Feet	Sampling Date	TPHg (mg/kg)	B (µg/kg)	T (µg/kg)	E (µg/kg)	X (µg/kg)	MTBE (µg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)
MW-6 Excavation										
MW6-N1	4.5	4/28/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	ND<9	41
MW6-S1	3	4/28/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	3,200	24,000
MW6-W1	3	4/28/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	2,100	6,800
MW6-E1	3	4/28/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	47	380
MW6-W2	3	5/4/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	ND<1	ND<5
MW6-N2	3.5	5/4/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	ND<1	ND<5
MW6-E2	3	5/4/98	ND<1	ND<5	ND<5	ND<5	ND<5	ND<50	ND<1	8
EPZ Current			16	2,700	2,700,000	5,000	990,000	Mon. Only	68	site specific
EPZ Proposed			26	2,700	2,700,000	5,000	990,000	Mon. Only	267	site specific

Notes:

Sample No. :	Sample designation/ depth at which sample was collected.
Sampling Date :	Date sample was collected.
TPH g :	Total petroleum hydrocarbons as gasoline using EPA Method 8015 (modified)- purgeable.
TPH d :	Total petroleum hydrocarbons as diesel using EPA Method 8015 (modified)- extractable.
TPH mo :	Total petroleum hydrocarbons as motor oil using EPA Method 8015 (modified)- extractable.
BTEX :	Benzene, Toluene, Ethylbenzene and total Xylenes using EPA Method 8020 (modified)
MTBE :	Methyl Tert Butyl Ether using EPA Method 8020 (modified)
µg/kg :	Micrograms per kilogram, parts per billion (ppb)
mg/kg :	Milligrams per kilogram, parts per million (ppm)
ND :	Not detected in concentrations exceeding the indicated laboratory method detection limit.
EPZ Current	RWQCB Order No. 95-136 Ecological Protection Zone current values
EPZ Proposed	RWQCB Order No. 95-136 Ecological Protection Zone values proposed by SFIA Consolidated Tenant Group.
10,000	Laboratory results above EPZ value
N.A.	Not analyzed or reported
Mon. Only	Monitor Only
site specific	Regional Board designation: TPHmo usually less than 100 ppm

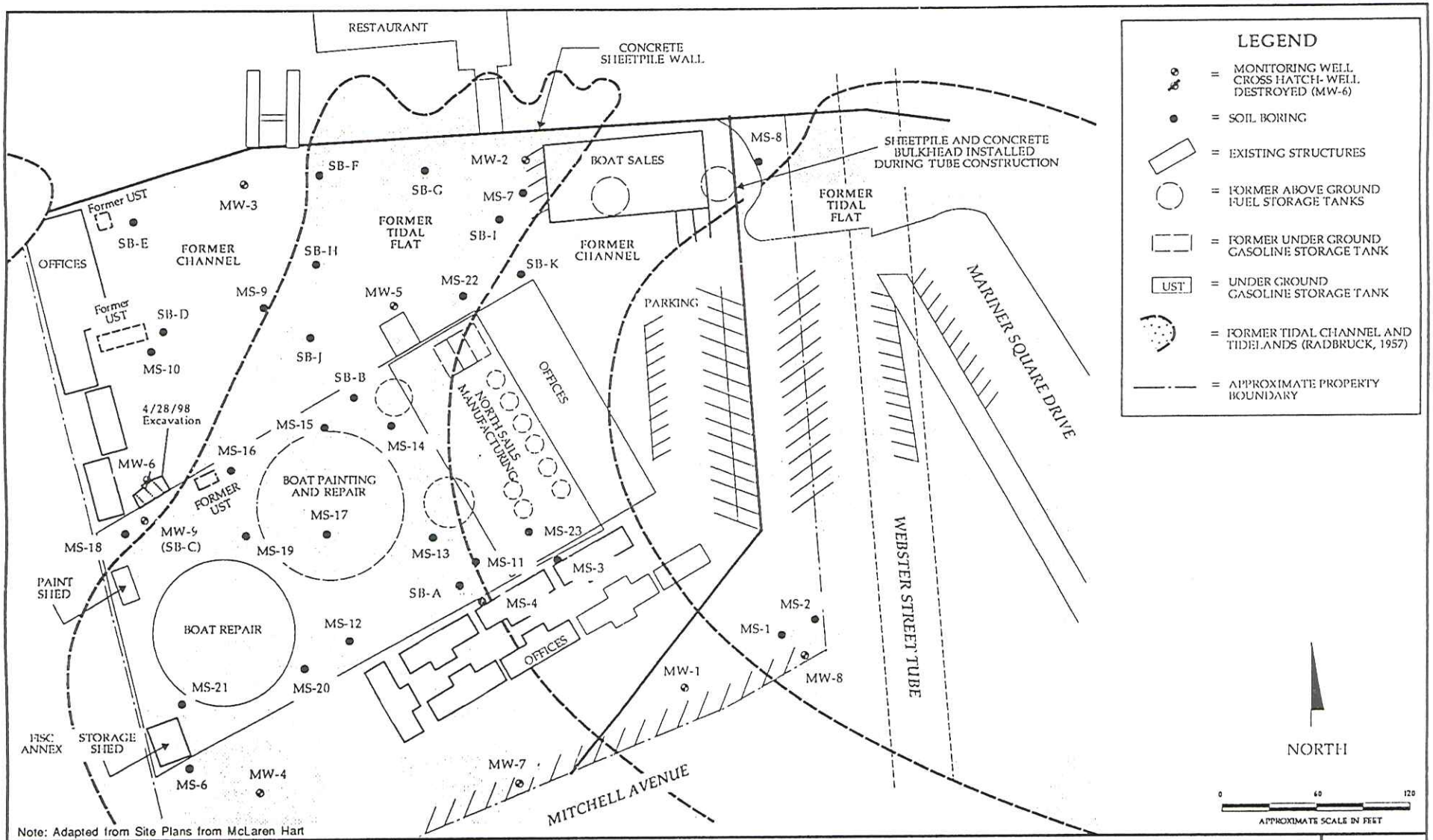


HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SITE LOCATION MAP
Mariner Square
2415 Mariner Square Drive
Alameda, California

Figure 1

7-285 11/96



Note: Adapted from Site Plans from McLaren Hart

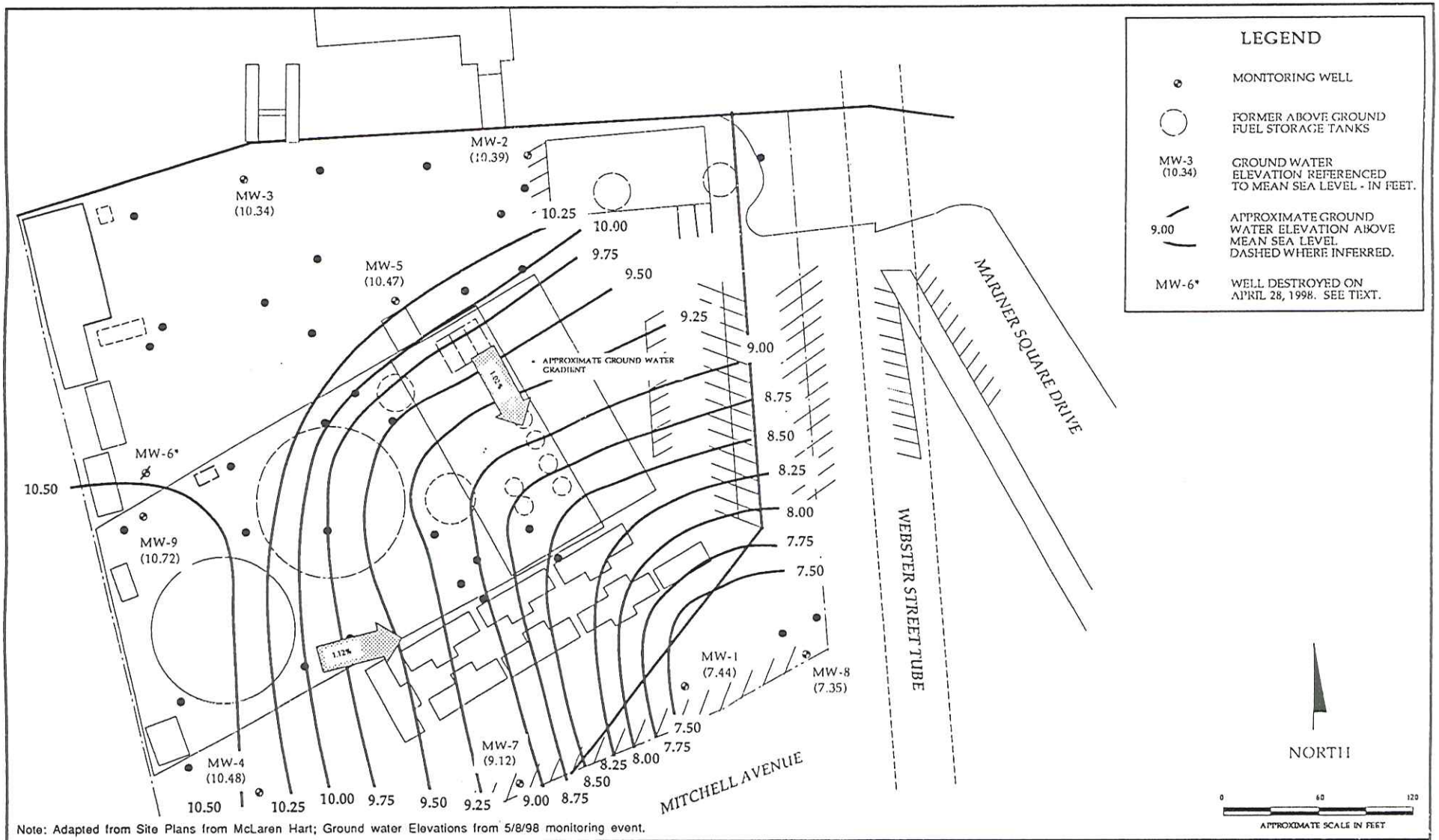
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SITE PLAN

Mariner Square
2415 Mariner Square Drive
Alameda, California

Figure 2

7-285.1 6/98



Note: Adapted from Site Plans from McLaren Hart; Ground water Elevations from 5/8/98 monitoring event.

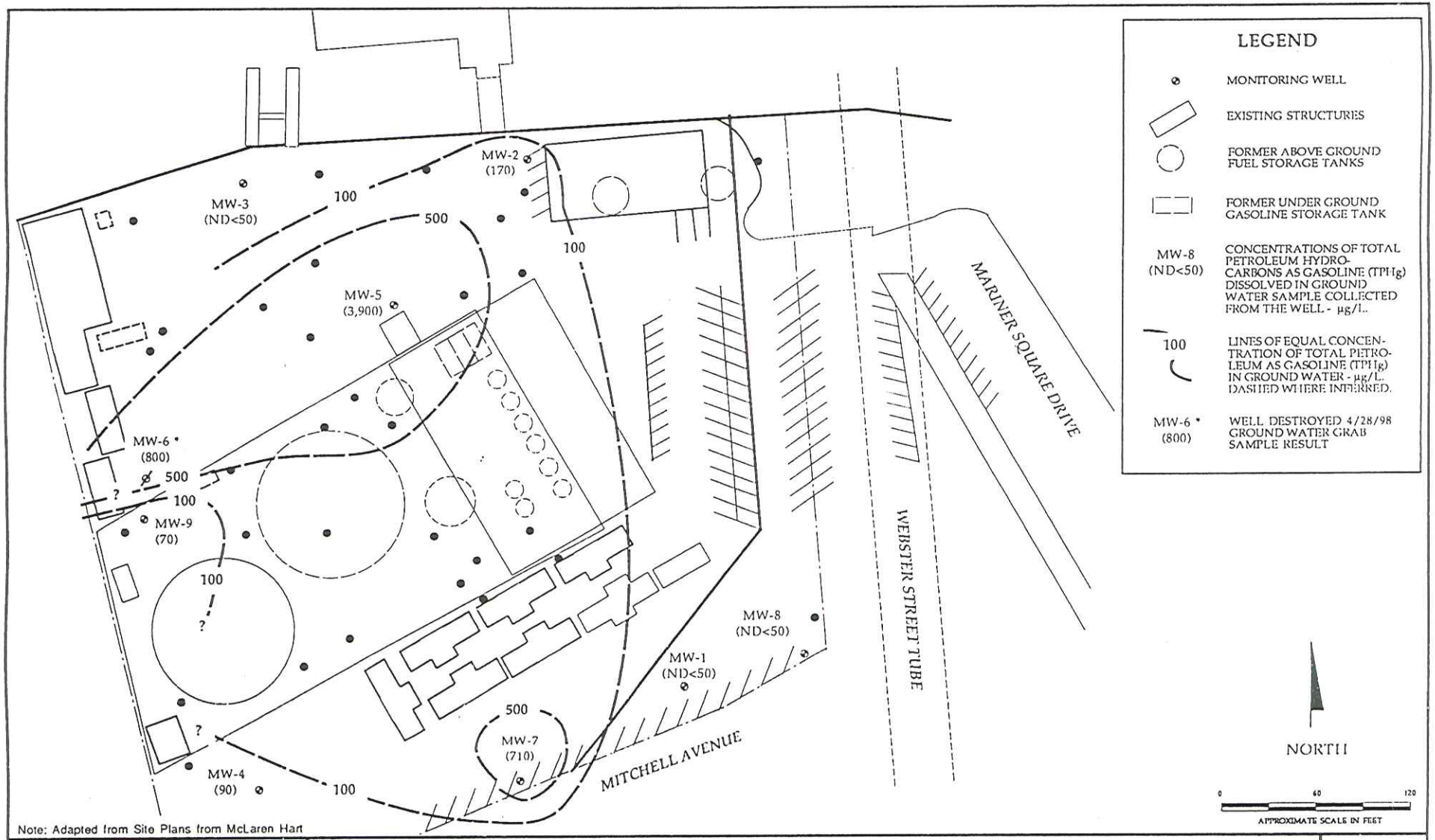
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

GROUND WATER CONTOUR MAP

Mariner Square
2415 Mariner Square Drive
Alameda, California

Figure 3

7-285.1 5/98



Note: Adapted from Site Plans from McLaren Hart

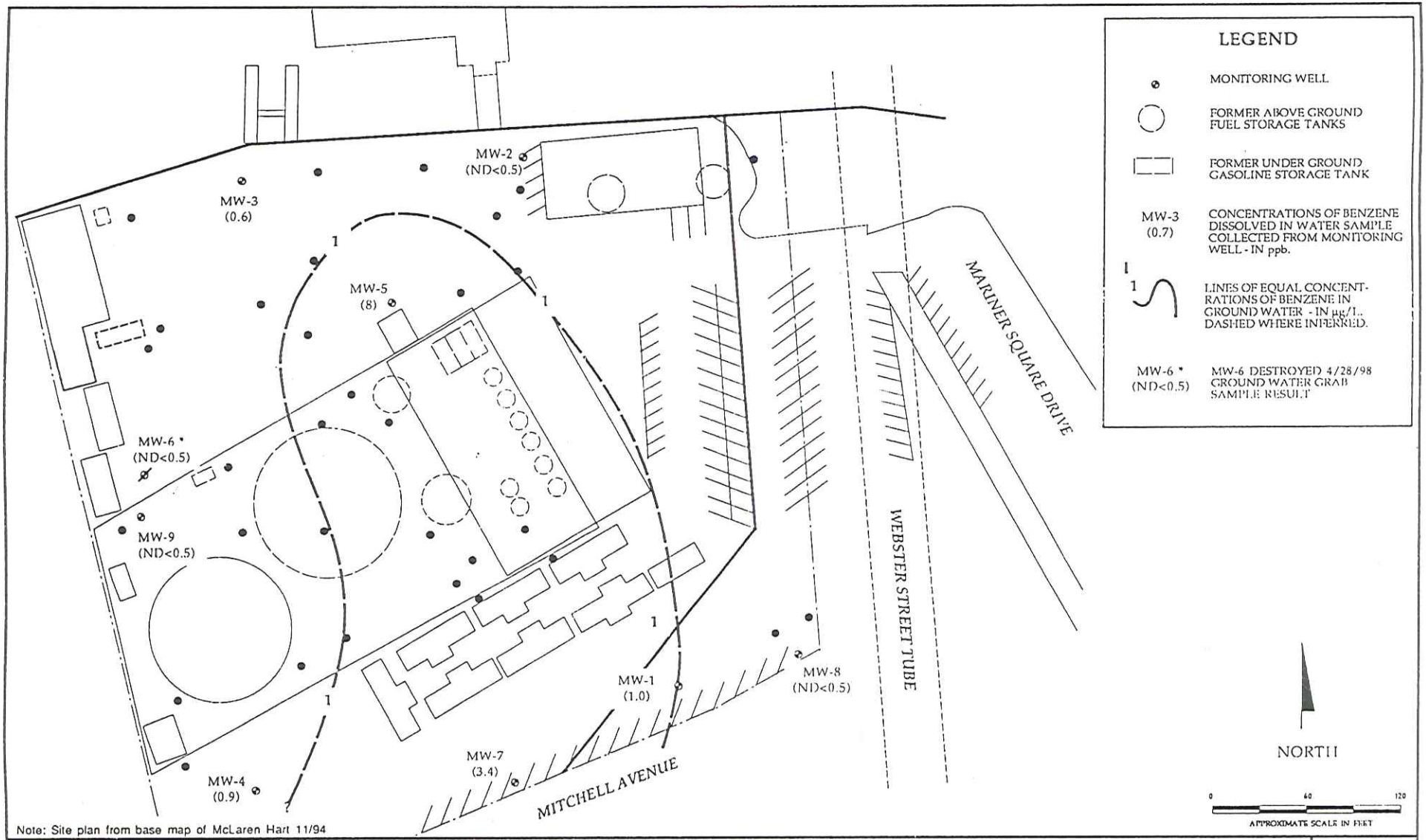
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

TPHg ISOCONCENTRATION MAP

Mariner Square
2415 Mariner Square Drive
Alameda, California

Figure 4

7-285.1 6/98



Note: Site plan from base map of McLaren Hart 11/94

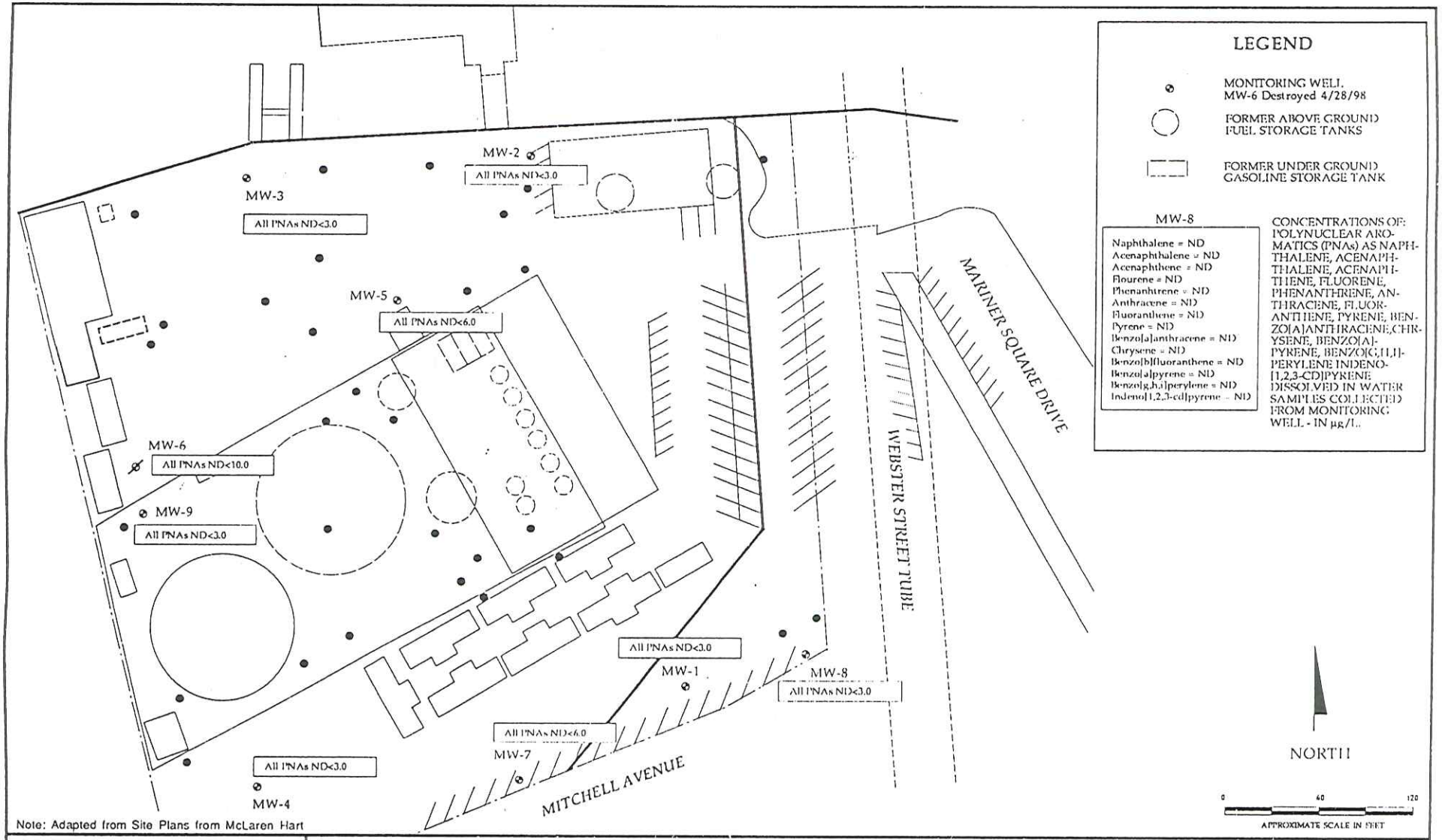
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

BENZENE ISOCONCENTRATION MAP

Mariner Square
2415 Mariner Square Drive
Alameda, California

Figure 5

7-285.1 6/98



Note: Adapted from Site Plans from McLaren Hart

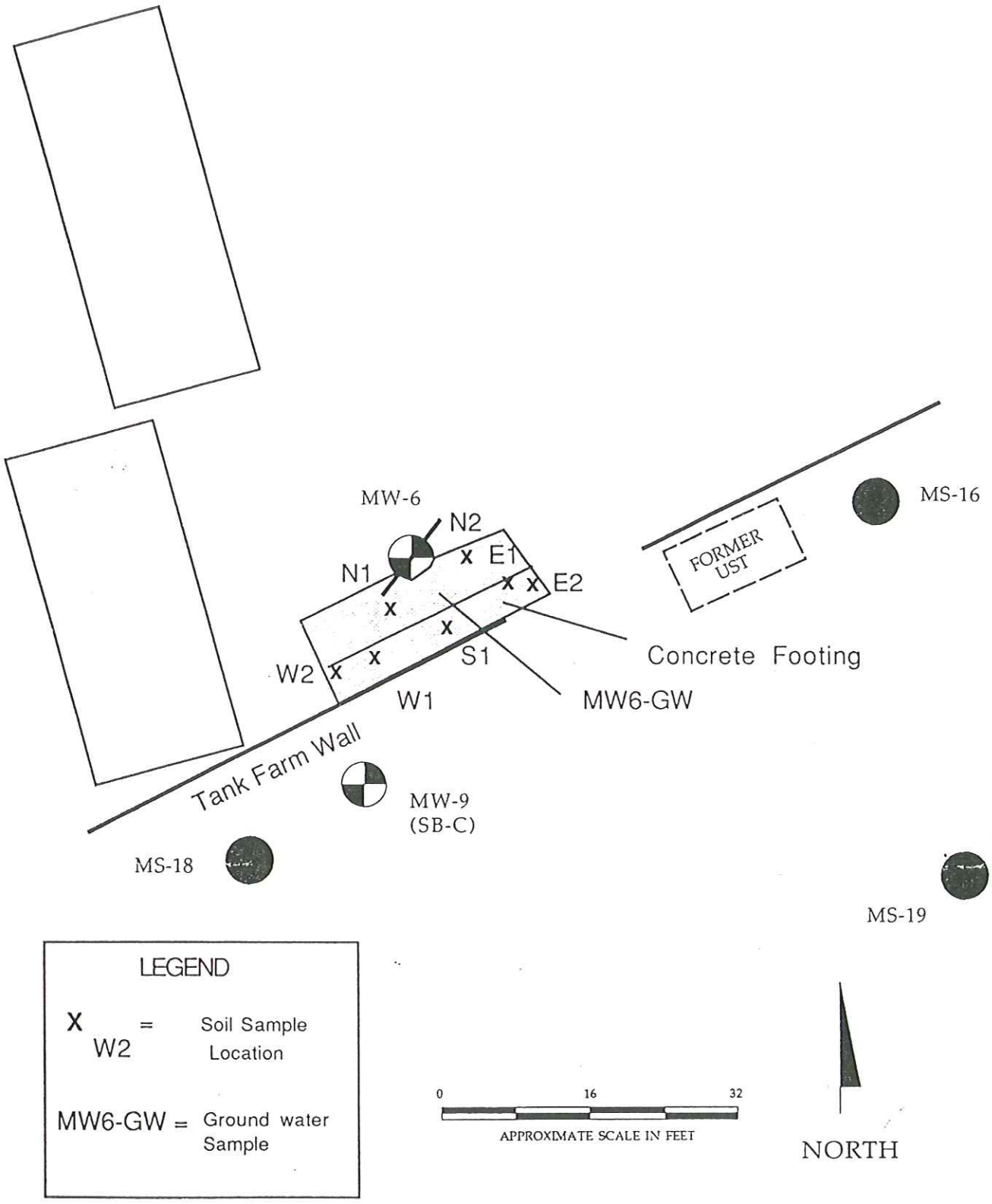
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

POLYNUCLEAR AROMATICS DISTRIBUTION MAP

Mariner Square
2415 Mariner Square Drive
Alameda, California

Figure 6

7-285.1 6/98



HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

MW6 Excavation
Mariner Square & Associates
2415 Mariner Square Drive
Alameda, California

Figure 7

7-285.1 5/98