

20-391



ENVIRONMENTAL MANAGEMENT, INC.

February 13, 2001
Project No. C80-000500C1

NO# 391
STID 1109
APR 11 2001

Ms. Susan Hugo
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway
Alameda, California 94502-6577

**Re: Underground Storage Tank Case Closure Request
Former Texaco/Former Exxon Service Station
500 Grand Avenue
Oakland, California
Incident No. 88870189**

Dear Ms. Hugo:

On behalf of Equiva Services LLC (Equiva), KHM Environmental Management, Inc. (KHM) has prepared this letter to request that the Alameda County Health Care Services Agency (ACHCSA) provide case closure for the above-referenced site. Historical site maps referenced in this letter are presented in Attachment A. Boring logs are included as Attachment B. Results of a well survey are included in Attachment C. Historical soil analytical data, groundwater analytical data, and results from a soil gas survey are included as Attachments D through F, respectively. Selected project reports used in the preparation of this letter are referenced.

KHM considers this case eligible for no further regulatory action on the following basis:

- All petroleum hydrocarbon sources have been removed from the site. The site operated as a Texaco service station from some unknown date to 1988. From 1988 to 1991, the station was operated by Exxon Company U.S.A (Exxon). The Exxon service station was decommissioned in late 1991 and underground storage tanks (USTs), dispenser islands, and associated piping were removed in April and May 1992.
- All petroleum hydrocarbon-impacted soil, with the exception of a narrow band beneath the Grand Avenue sidewalk, has been removed from the site for disposal at a licensed waste disposal facility. Approximately 2,378 cubic yards of petroleum

hydrocarbon-impacted soil were removed from the site during excavation activities in April and May 1992, and January 1993.

- During 1992 and 1993 remediation activities, approximately 31,300 gallons of petroleum hydrocarbon-impacted groundwater were pumped from the excavations and disposed at an off-site licensed waste disposal facility.
- The site has been adequately characterized. The extent of petroleum hydrocarbons in soil and groundwater has been defined by a soil gas survey, analysis of excavation soil samples, 14 soil borings, and the installation of 4 UST observation wells and 12 groundwater monitoring wells. Quarterly groundwater monitoring has been performed since June 1988.
- The only remaining petroleum hydrocarbons detected in groundwater are total petroleum hydrocarbons as oil and grease (TRPH) and total petroleum hydrocarbons as diesel (TEPH).
- Separate phase hydrocarbons (SPH) have never been observed in any site groundwater monitoring wells.
- Oxygen releasing compounds (ORC) have been used in site wells to reduce concentrations of petroleum hydrocarbons.
- TRPH was not detected in any groundwater monitoring wells on November 6, 2000, the most recent sampling event. TRPH has only been detected in one well (Well MW-8H) on a consistent basis.
- Residual petroleum hydrocarbons pose a low risk to surface water quality in nearby Lake Merritt. TRPH compounds have low mobility in groundwater. Lake Merritt is located approximately 200 feet downgradient of the site. TRPH has not been detected in wells located between the site and Lake Merritt (Wells MW-8F and MW-8G) for the last six quarters.
- With the exception of the January 1992 sampling event, TEPH levels in groundwater have never exceeded the proposed San Francisco Regional Water Quality Control Board (SFRWQCB) risk-based screening level (RBSL) of 640 micrograms per liter (ug/l) in downgradient Well MW-8G. Well MW-8G is located between the site and Lake Merritt.
- Residual petroleum hydrocarbons pose a low risk to groundwater resources. Petroleum hydrocarbon-impacted groundwater is shallow and not used as a groundwater resource. There are no wells located between the site and Lake Merritt, the direction of groundwater flow. A well survey performed by KHM

found no wells within ½ mile of the site. The closest wells are two irrigation wells, which are reported by the County of Alameda Public Works Agency (APWA) to be located approximately 3,500 feet west and southwest from the site. No visual evidence was found to confirm their existence.

- Analyses for methyl tert-butyl ether (MTBE) was performed by EPA Method 8260 for groundwater samples collected from wells on November 3, 1999. MtBE was not detected in any of the samples.

BACKGROUND

SITE DESCRIPTION

The former Texaco service station site is located on the east corner of Grand Avenue and Euclid Avenue in Oakland, California [Harding Lawson Associates (HLA) Plate 1, May 1989]. The site is relatively flat and is located approximately 200 feet north of the eastern end of Lake Merritt at about 20 feet above mean sea level (HLA, September 22, 1989). The surrounding area is predominantly residential, with some commercial properties nearby the site. The local topography consists of gently rolling hills that slope toward Lake Merritt.

The site operated as a Texaco service station from some unknown date until 1988. Between 1988 and 1991, the site operated as an Exxon service station. In June 1990, during the installation of spill containment devices, Exxon personnel discovered waste oil in the backfill surrounding the waste oil UST. In September 1990, the waste oil UST of unknown capacity was removed from the site by Exxon. In late 1991, Exxon's lease expired and the service station was decommissioned. On April 13 through 15, 1992, the station building, service bays, three 10,000-gallon fiberglass unleaded and leaded gasoline USTs, two dispenser islands, and associated piping were removed from the site. The site is currently used as a public parking lot.

GEOLOGIC/HYDROGEOLOGIC SETTING

A total of 14 soil borings and 12 groundwater monitoring wells have been drilled/installed to depths between approximately 5 to 32 feet below grade at on-site and off-site locations. Based on previous investigations, the site is generally underlain by gravelly sandy clay followed by alternating layers of silty clay and clayey sand to the total depth explored. A geologic cross section is included in Attachment A (HLA Plate 16, June 1989). Available boring logs are presented in Attachment B.

Groundwater has been encountered in soil borings and groundwater monitoring wells at depths ranging from 1 foot to 16 feet below grade. Average depth to groundwater is currently about 6 feet below grade. Since 1992, groundwater levels have fluctuated between 1 foot and 12 feet below grade. Historical groundwater monitoring reports show that groundwater flows predominantly to the southeast toward Lake Merritt, with

occasional variations to the south. A groundwater elevation contour map from the latest groundwater monitoring event (November 6, 2000) is included in Attachment A (KHM Figure 1, January 3, 2001).

WATER SUPPLY WELLS/SURFACE WATER

The East Bay Municipal Utilities District provides the City of Oakland water from the Mokelumne Aqueduct, which is located approximately 30 miles northeast of the site (HLA, December 7, 1990). An initial sensitive receptor survey of the site area was performed by HLA in May 1988. According to that survey, there were no documented public or private water supply wells located within 2,500 feet of the site. The only reported sensitive receptor within 2,500 feet of the site was Lake Merritt, which is located approximately 200 feet south (downgradient) from the site. HLA's sensitive receptor survey form is included in Attachment C (HLA, September 22, 1989).

KHM recently requested well information from the APWA. The APWA provided a listing of all registered wells within approximately one mile of the site. No wells were identified within ½ mile of the site. On February 6, 2001, KHM performed a reconnaissance of the area surrounding the site. No visual evidence of a well (above-ground pumps, pump houses, above ground piping, electrical wires to small sheds, etc.) was found within an approximately 1,000-foot search radius. There are no farms or agricultural fields in the site area, which typically have wells.

The two nearest water supply wells (Wells 1S4W26R3 and 1S4W35A2) listed by the APWA are located approximately 3,500 feet west and southwest of the site, respectively (KHM Figure 1, Attachment C). APWA records indicate that these wells are used for irrigation. On February 6, 2001, KHM attempted to locate the two wells. No visual evidence of a well could be found at either location.

PREVIOUS ASSESSMENTS

Environmental investigations were performed between 1988 and 1993. All tabulated soil and groundwater analytical data collected from the site are included in Attachments D and E, respectively.

1988 and 1989 Soil and Groundwater Investigation. Environmental activities were initiated in June 1988 to investigate whether petroleum hydrocarbons had impacted shallow soil and groundwater beneath the site. HLA drilled five soil borings, four of which were converted to monitoring wells (Wells MW-8A through MW-8D) [HLA Plate 2, May 1988]. The wells extended to depths between 4.5 and 24 feet below grade and depth to groundwater within the wells ranged from approximately 0.5 feet to 10 feet below grade. The direction of groundwater flow was toward the southeast in the direction of Lake Merritt. One shallow soil sample was collected from the boring for Well MW-8D and groundwater samples were collected from all wells. Concentrations of benzene, toluene,

ethylbenzene, and xylenes (BTEX compounds) were detected at low concentrations in the shallow soil sample from the boring for Well MW-8D (HLA Table 2, July 20, 1988, Attachment D). Well MW-8D was located downgradient of the UST complex in the southeast corner of the site. Concentrations of BTEX compounds were detected at low levels in Wells MW-8A (located in the southern corner of the site) and MW-8C (located adjacent to Well MW-8D downgradient of the UST complex)[HLA Table 2, July 20, 1988, Attachment E].

To further delineate the extent of petroleum hydrocarbons in shallow soil beneath the site, a soil gas survey was performed in September 1988 under the supervision of HLA. A total of 19 soil gas samples were collected at depths up to approximately 6 feet below grade. Soil vapor samples were collected in the vicinity of the UST complex, along the western property boundary, along Euclid Avenue, along the southern property boundary, and along Grand Avenue (HLA Plate 3, May 1989). Soil gas samples were analyzed for total petroleum hydrocarbons and BTEX compounds. Concentrations of total petroleum hydrocarbons [up to 32,000 micrograms per liter (ug/l)] were detected in the vicinity of the USTs, along the northwest property boundary (up to 360,000 ug/l), and along Grand Avenue (1,400,000 ug/l) [HLA Plate 3, May 1989 and Soil Vapor Analytical Results, Attachment F]. Based on these results, HLA concluded that off-site migration had occurred beneath a portion of Grand Avenue.

HLA drilled five on-site soil borings (B-1 through B-5) and installed on-site Well MW-8E and off-site Wells MW-8F and MW-8G over a six-month period, between October 1988 and March 1989 (HLA Plate 4, May 1989). The purpose of drilling the on-site borings was to confirm the results of the previous soil gas survey and to define the extent of petroleum hydrocarbons in the area of the USTs. Borings B-1 through B-5 were drilled to a depth of between approximately 8 to 17.5 feet below grade. Soil analytical results confirmed that soils in the area of the UST complex (Borings B-1 and B-4) and in vicinity of the southern dispenser island (Boring B-3 and the boring for Well MW-8E) were impacted with total purgeable petroleum hydrocarbons as gasoline (TPPH). TPPH concentrations in soils ranged from 12 to 750 milligrams per kilogram (mg/kg)[HLA Table 2, September 22, 1989, Attachment D]. The highest TPPH concentrations were found at a depth of 5.5 feet below grade, corresponding to the top of the zone of saturation.

Wells MW-8E, MW-8F, and MW-8G were installed to further delineate the downgradient extent of petroleum hydrocarbons off-site. Soil and groundwater samples were collected from Wells MW-8E through MW-8G, which were completed to a depth of approximately 15 feet below grade. Soil samples were analyzed for TPPH and BTEX compounds, and groundwater samples were analyzed for BTEX compounds. Concentrations of petroleum hydrocarbons in soil and groundwater were only detected in Well MW-8E, which reported a TPPH concentration of 750 mg/kg in soil and 1,400 ug/l benzene in groundwater (HLA Table 2, Attachment D and HLA Table 3, Attachment E, September 22, 1989). Petroleum hydrocarbons were not detected in soil and groundwater from Wells MW-8F and MW-8G, located approximately 70 feet downgradient of the site in the direction of Lake Merritt.

During the fourth quarter 1989, HLA drilled four additional soil borings (B-6 through B-9) to further investigate the presence of petroleum hydrocarbons in the vadose zone. Boring B-6 was drilled in the area of the waste oil UST; Boring B-7 was drilled in the area near the southern property boundary downgradient from the southern dispenser island; and Borings B-8 and B-9 were drilled in the southwest portion of the property (HLA Plate 2, December 1989). Borings were drilled to depths ranging from 3.5 to 5.5 feet below grade. Soil samples were analyzed for TPPH, BTEX compounds, TEPH, and TRPH. Soil analytical results indicated that petroleum hydrocarbons were detected in all samples analyzed. TPPH concentrations ranging from 3.4 to 580 mg/kg were detected in all soil samples analyzed. TEPH was detected in Boring B-9 at 460 mg/kg. TRPH was not detected in any soil samples analyzed (HLA Table 1, August 30, 1990, Attachment D).

1990 Soil and Groundwater Investigations. In January 1990, HLA drilled four on-site soil borings (B-8K, and B-10 through B-12) and installed three additional off-site wells (Wells MW-8H through MW-8J) for additional site characterization. The four on-site soil borings were drilled to depths ranging from approximately 6 to 9.5 feet below grade in the area west of the dispenser islands (B-10 and B-12), near the northwest corner of the UST complex (B-11), and off-site near the southeast property boundary (B-8K)[HLA Plate 2, December 1989]. Wells MW-8H through MW-8J were completed to approximately 16.5 feet below grade south of the site in the sidewalk bordering Grand Avenue.

Soil samples from Borings B-10 through B-12 and B-8K, and groundwater samples from all wells were analyzed for TPPH, BTEX compounds, and TRPH. Soil analytical results indicated that concentrations of petroleum hydrocarbons in soil borings and borings for groundwater monitoring wells were generally detected between 1 and 6 feet below grade. A maximum concentration of TPPH was detected in the 1.5-foot sample from Boring B-11 (2,900 mg/kg); a maximum concentration of benzene was detected in the 1.5-foot sample from Boring B-10 (0.28 mg/kg); and a maximum concentration of TRPH was detected in the 4.5-foot sample from Boring B-12 (94 mg/kg)[HLA Table 1, August 30, 1990, Attachment D]. Groundwater samples from Wells MW-8H through MW-8J contained concentrations of TPPH up to 580 ug/l, benzene up to 116 ug/l, and 440 ug/l TEPH in Well MW-8I (HLA Table 1, June 13, 1990, Attachment E).

During the second quarter 1990, HLA hand augured Borings B-13 and B-14 to approximately 3.5 feet below grade to further delineate the presence of petroleum hydrocarbons in the vadose zone in the vicinity of the station building. Soil samples were analyzed for TPPH, BTEX compounds, and TRPH. Concentrations of up to 130 mg/kg TPPH were detected in 4 of the 5 samples analyzed and concentrations of TRPH were detected from 62 to 1,000 mg/kg in all of the soil samples submitted for analysis (HLA Table 1, August 30, 1990, Attachment D).

1993 Soil and Groundwater Investigation. Wells MW-8K and MW-8L were installed in May 1993 by Pacific Environmental Group, Inc. (PEG) to monitor on-site subsurface conditions following the removal of petroleum hydrocarbon-impacted soils and

groundwater during the April/May 1992 and January 1993 excavations (Texaco Correspondence Letter, October 12, 1993). Well MW-8K was installed west of the southern dispenser island and MW-8L was installed east of the southern dispenser island, cross gradient of the former UST complex (KHM Figure 1, January 3, 2001). Groundwater from the new wells contained very low to non-detectable concentrations of petroleum hydrocarbons, reflecting the success of site remediation activities.

1991 through 2000 Groundwater Monitoring. Quarterly groundwater monitoring and sampling has been conducted on a quarterly basis since March 1991. Selected wells have been destroyed prior to site excavation activities. Well MW-8D was abandoned sometime during the first quarter 1990 (HLA, June 13, 1990). Wells MW-8A and MW-8E were abandoned on August 3, 1992 (Resna, February 22, 1993). Wells MW-8B and MW-8C were abandoned on March 31, 1993 (PEG Well Completion Report, April 20, 1993). Since August 25, 1994, Wells MW-8F through MW-8K have comprised the current monitoring well network. In January 1998, Texaco authorized the removal of Well MW-8L from the groundwater monitoring program, due to a damaged well casing that rendered the well inaccessible for monitoring and sampling (Verbal Confirmation by Blaine Tech Services, February 8, 2001).

After approximately 9 years of groundwater monitoring, concentrations of TPPH and BTEX compounds have significantly decreased over time to non-detectable concentrations in most wells (KHM Well Concentrations Table, January 8, 2001, Attachment E). In general, TPPH and BTEX concentrations have not been detected in any wells over the last two years.

TEPH and TRPH concentrations have remained stable or have declined since the beginning of the groundwater monitoring program. Concentrations of TEPH in downgradient Wells MW-8F and MW-8G have not exceeded 270 ug/l since August 1998. TEPH concentrations in Wells MW-8F and MW-8G were 77.3 ug/l and 106 ug/l, respectively in samples collected from the most recent sampling event on November 6, 2000 (KHM Well Concentrations Table, January 8, 2001, Attachment E).

TRPH has not been detected in downgradient Wells MW-8F and MW-8G during the last six quarterly sampling events. The only on-site well reporting TRPH concentrations on a consistent basis is Well MW-8H, which has reported concentrations of TRPH during 15 of 28 groundwater monitoring events, with concentrations ranging from 8.7 ug/l to 35,200 ug/l (KHM Well Concentrations Table, January 8, 2001, Attachment E).

SITE REMEDIATION

1991 Clay Pipe Excavation. During excavation of the waste oil UST by Exxon in September 1990, clay pipes containing petroleum hydrocarbons were discovered approximately 1.5 feet below grade in the northwest and northeast corners of the excavation. A trench approximately 15 feet long, 2.5 feet wide, and 4.5 feet deep was excavated on the west side of the former waste oil UST location (HLA Plate 1, January 30,

1991). Soil and groundwater samples were analyzed for TPPH, BTEX compounds, TEPH, and TRPH. The groundwater sample collected nearest to the waste oil UST (EP-01) reported the highest concentrations of petroleum hydrocarbons (HLA Table 1, February 12, 1991, Attachment E). All soil samples collected from the area of the clay pipe reported concentrations of TPPH ranging from 1.1 to 100 mg/kg, concentrations of TEPH ranging from 8.1 to 190 mg/kg, and concentrations of TRPH ranging from 110 to 150 mg/kg (HLA, Table 2, February 12, 1991, Attachment D).

1992 UST Removal Activities. HLA oversaw the removal of three 10,000-gallon USTs, two dispenser islands, and associated piping from the site in April 1992. Additional excavation activities were performed beneath the former dispenser islands and in the southwest portion of the site in May 1992. The April 1992 UST excavation extended approximately 10 feet below grade over an approximately 1,800 square-foot area (HLA Plate 3, June 9, 1992). The May 1992 excavation extended approximately 7 to 9 feet below grade over an approximately 3,300 square-foot area [Converse Environmental West (CEW) Figure 2, March 11, 1993]. Groundwater was present within the UST excavation. During UST excavation activities, approximately 25,000 gallons of petroleum hydrocarbon-impacted groundwater were pumped from the excavation (HLA, June 9, 1992). A total of approximately 1,550 cubic yards of soil were removed from the site during both excavations (CEW, March 1993).

In April 1992, HLA collected nine soil samples from the base of the UST excavation and sidewalls, at depths between approximately 5 and 10 feet below grade (HLA Plate 3, June 9, 1992). Soil samples were analyzed for TPPH and BTEX compounds. Concentrations of up to 130 mg/kg TPPH were detected in samples collected from the bottom of the UST excavation; TPPH was not detected in any samples collected from the UST excavation sidewalls. Benzene was not detected above 0.2 mg/kg in any UST samples analyzed (HLA Table 1, June 9, 1992, Attachment D). Three soil samples were collected from the dispenser islands excavation and one sample was collected from a piping trench at depths of approximately 5 to 6 feet below grade. Samples were analyzed for TPPH, BTEX compounds, and TRPH. Concentrations of TPPH (up to 2,100 mg/kg), benzene (up to 11 mg/kg), and TRPH (up to 6,900 mg/kg) were detected in all samples analyzed (HLA Table 1, June 9, 1992, Attachment D).

In May 1992, additional excavation was performed in the area of the former dispenser islands to remove petroleum hydrocarbon-impacted soils identified in the April 1992 excavation. HLA collected 15 soil samples from various locations within the excavation (HLA Plate 6, September 12, 1992). Soil samples were collected from depths ranging between 3 and 9 feet below grade. Samples were analyzed for TPPH and BTEX compounds. Soil analytical results indicated that with the exception of minor concentrations of benzene, TPPH and BTEX concentrations were below detection limits in most of the samples analyzed, indicating the excavation of petroleum hydrocarbon-impacted soil had been successful. The only area still containing petroleum hydrocarbons was along the southern boundary of the excavation. Concentrations of TPPH and BTEX compounds

were reported in the 5-foot samples from Borings WS-2, WS-4, and WS-5, which were collected along the southern excavation boundary. The maximum concentrations of TPPH and benzene were found in Boring WS-4 at 1,000 mg/kg and 22 mg/kg, respectively (HLA Table 6, September 10, 1992, Attachment D). Excavation was limited in the southerly direction by Grand Avenue.

1993 Excavation Activities. In January 1993, CEW supervised an additional excavation in the northern portion of the site, which extended from the northern boundary of the April/May 1992 excavations to within 5 feet from the northern property boundary (CEW Figure 3, March 11, 1993). The average depth of the excavation was approximately 6.5 feet below grade. Seven soil samples were collected from the excavation sidewalls and 10 soil samples were collected from the base of the excavation. Samples were analyzed by an on-site mobile laboratory for TPPH and BTEX compounds. TPPH and BTEX compounds were not detected in any of the soil samples analyzed from the base or sidewalls of the excavation (CEW Table 1, March 1993, Attachment D). During excavation activities, approximately 828 cubic yards of petroleum hydrocarbon-impacted soil were removed. Due to seasonal rains and groundwater seeping into the excavation, approximately 6,300 gallons of groundwater were pumped from the excavation prior to backfilling (CEW, March 1993).

To assist in the reduction of the dissolved petroleum hydrocarbon plume, PEG installed ORC socks in Wells MW-8F, MW-8G, and MW-8I in December 1996. The ORC provided oxygen to groundwater to enhance in-situ biodegradation of remaining petroleum hydrocarbons. ORC socks were replaced continuously in the wells until they were removed in March 2000 [IT Corporation (IT), June 26, 2000].

CURRENT SITE STATUS AND REGULATORY ACTIVITY

In February 29, 2000, IT recommended that the site be reviewed for case closure based on declining concentrations of petroleum hydrocarbons in on-site and downgradient wells. Ms. Susan Hugo of the ACHCSA concurred with this recommendation; however, the ACHCSA requested two more consecutive quarters of groundwater monitoring and sampling without the ORC socks in Wells MW-8F, MW-8G, and MW-8I. The purpose of this additional monitoring was to determine the stability of the dissolved petroleum hydrocarbon plume without the presence of ORC socks (IT, June 26, 2000). IT removed the ORC socks from Wells MW-8F, MW-8G, and MW-8I in March 2000.

Two additional quarters of monitoring and sampling all wells were performed in the second and third quarters of 2000. Concentrations of TEPH and TRPH remained near historic concentrations. No significant rise in concentrations was observed. Ms. Hugo in a telephone conversation with KHM on October 3, 2000 requested that all wells be sampled for TEPH and TRPH using silica gel cleanup to evaluate whether organics have interfered with providing accurate laboratory analytical results. All wells were sampled in the fourth quarter of 2000. Analysis of groundwater samples reported TEPH results consistent with historical levels, which confirmed that organics did not elude false positive results. Silica gel

cleanup was not performed on TRPH samples because TRPH was not detected using the applied EPA test method. In a January 19, 2001 telephone conversation with KHM, Ms. Hugo concurred with KHM's request to proceed with application for case closure.

Ms. Hugo recommended that a well survey be performed as part of the closure process to determine whether there is a risk of residual petroleum hydrocarbons impacting a possible nearby drinking water supply. As discussed above, KHM has determined that there are no water supply wells within ½ mile of the site.

RISK ANALYSIS

The SFRWQB recently issued a document titled *Application of Risk-Based Screening Levels and Decision Making to Sites with Impacted Soil and Groundwater (Interim Final – August 2000)*. The document presents lookup tables with conservative RBSLs for over 100 chemicals. The guidance for using the document states, "As an alternative to preparing a formal risk assessment, soil and groundwater data collected at a site can be directly compared to the RBSLs and the need for additional work evaluated."

The RBSL for total petroleum hydrocarbons - middle distillates and total petroleum hydrocarbons - residual fuels in groundwater is 640 ug/l (SFRWQCB Tables B and D, August 2000, Attachment E). This RBSL is considered by KHM to be appropriate for TEPH. This RBSL applies to sites where drinking water resources are not threatened. During the last four quarters of groundwater monitoring (year 2000) the maximum concentration of TEPH detected in any well was 433 ug/l. No RBSL exists for TRPH. TRPH is not considered a contaminant of concern. TRPH has low mobility in groundwater. With the exception of one anomalous result (Well MW-8G, June 1999), TRPH has not been detected in groundwater from downgradient Wells MW-8F and MW-8G since May 1997 (PEG's Groundwater Chemical Analytical Data Table, June 18, 1999 and KHM Table 1, January 8, 2001, Attachment E).

The nearest sensitive receptor to the site is Lake Merritt. Section 2.8 of the SFRWQCB's document states, "Consideration of groundwater RBSLs listed under the category of 'Elevated Threat to Surface Water Habitats' will not generally be necessary at sites with small isolated plumes of impacted groundwater located some distance from a body of surface water. Although these plumes could conceivably migrate off site and discharge into a body of surface water in the distant future, impacts are likely to be short lived and plumes are likely to become significantly diluted as they mix with surface water." KHM, on the basis of the limited extent of the dissolved petroleum hydrocarbon plume, concludes that the site does not pose a threat to surface waters of Lake Merritt.

SUMMARY

KHM has reviewed all available historic environmental information regarding the former Texaco/former Exxon service station. Based on that review, KHM concludes that the

former service station site does not pose a threat to surface water or groundwater and should be granted case closure. All sources of petroleum hydrocarbons have been removed from the site. Extensive site excavations have removed petroleum hydrocarbon-impacted soil from the area of the former USTs, station building and service bays, dispenser islands, and product piping. SPH has never been detected in any on-site or off-site groundwater monitoring well.

The petroleum hydrocarbons remaining in soil are classified as TEPH and TRPH, which have low mobility in soil and groundwater. Historical groundwater analytical results show that the dissolved TEPH and TRPH plume has remained stable or has decreased over time. TEPH in groundwater has consistently reported levels below the SFRWQCB RBSL of 640 ug/l in downgradient wells. There are no water supply wells located between the site and Lake Merritt. A well survey did not identify any drinking water supply wells within 1/2 mile of the site. MTBE has never been detected in groundwater (EPA Method 8260).

Should you have any questions, please call me at (408) 224-4724.

Sincerely,

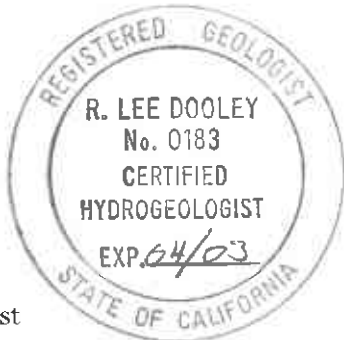
KHM Environmental Management, Inc.



Kristen Flesoras
Project Scientist



R. Lee Dooley
Senior Hydrogeologist
CHG 183



February 13, 2001

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Attachments: Attachment A – Historical Site Maps
Attachment B – Boring Logs
Attachment C – Historical Sensitive Receptor Survey Data and Recent Well
Survey Data
Attachment D – Historical Soil Analytical Data
Attachment E – Historical Groundwater Analytical Data
Attachment F – Historical Soil Gas Survey Analytical Results

cc: Ms. Karen Petryna, P.E., Equiva Services LLC, P.O. Box 7869, Burbank, CA 91510-7869
Mr. Richard Hiatt, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay
Street, Suite 1400, Oakland, CA 94612

REFERENCES

California Regional Water Quality Control Board, *Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater, Volume 1: Summary Tier 1 Lookup Tables*, Interim - August 2000.

Converse Environmental West, *Soil Excavation and Soil Sampling Report, Former Texaco Service Station, 500 Grand Avenue, Oakland, California*, March 26, 1993.

Harding Lawson Associates, *Environmental Assessment Report, Former Texaco Station No. 6248800235, 500 Grand Avenue, Oakland, California*, September 22, 1989.

Harding Lawson Associates, *Quarterly Technical Report, First Quarter of 1990, Former Texaco Station No. 6248800235, 500 Grand Avenue, Oakland, California*, June 13, 1990.

Harding Lawson Associates, *Quarterly Technical Report, Second Quarter of 1990, Former Texaco Station No. 6248800235, 500 Grand Avenue, Oakland, California*, August 30, 1990.

Harding Lawson Associates, *Quarterly Technical Report, Second Quarter of 1992, Former Texaco Station No. 6248800235, 500 Grand Avenue, Oakland, California*, September 10, 1992.

Harding Lawson Associates, *Results of Pipe Excavation and Recent Groundwater Analyses, Former Texaco Station No. 6248800235, 500 Grand Avenue, Oakland, California*, February 12, 1991.

Harding Lawson Associates, *Subsurface Investigation, Texaco Station No. 6248800235, 500 Grand Avenue, Oakland, California*, July 20, 1988.

Harding Lawson Associates, *Underground Storage Tank Removal, Former Exxon Service Station, 500 Grand Avenue, Oakland, California*, June 9, 1992.

KHM Environmental Management, *Quarterly Monitoring Report – Third Quarter 2000*, September 28, 2000.

KHM Environmental Management, *Quarterly Monitoring Report – Fourth Quarter 2000*, January 8, 2001.

IT Corporation, *Quarterly Monitoring Report – First Quarter 2000, Former Texaco Service Station, 500 Grand Avenue at Euclid Avenue, Oakland, California*, June 26, 2000.

Pacific Environmental Group, Inc., *Quarterly Monitoring Report, Fourth Quarter 1998 and First Quarter 1999, Former Texaco Service Station, 500 Grand Avenue at Euclid Avenue, Oakland, California*, June 18, 1999.

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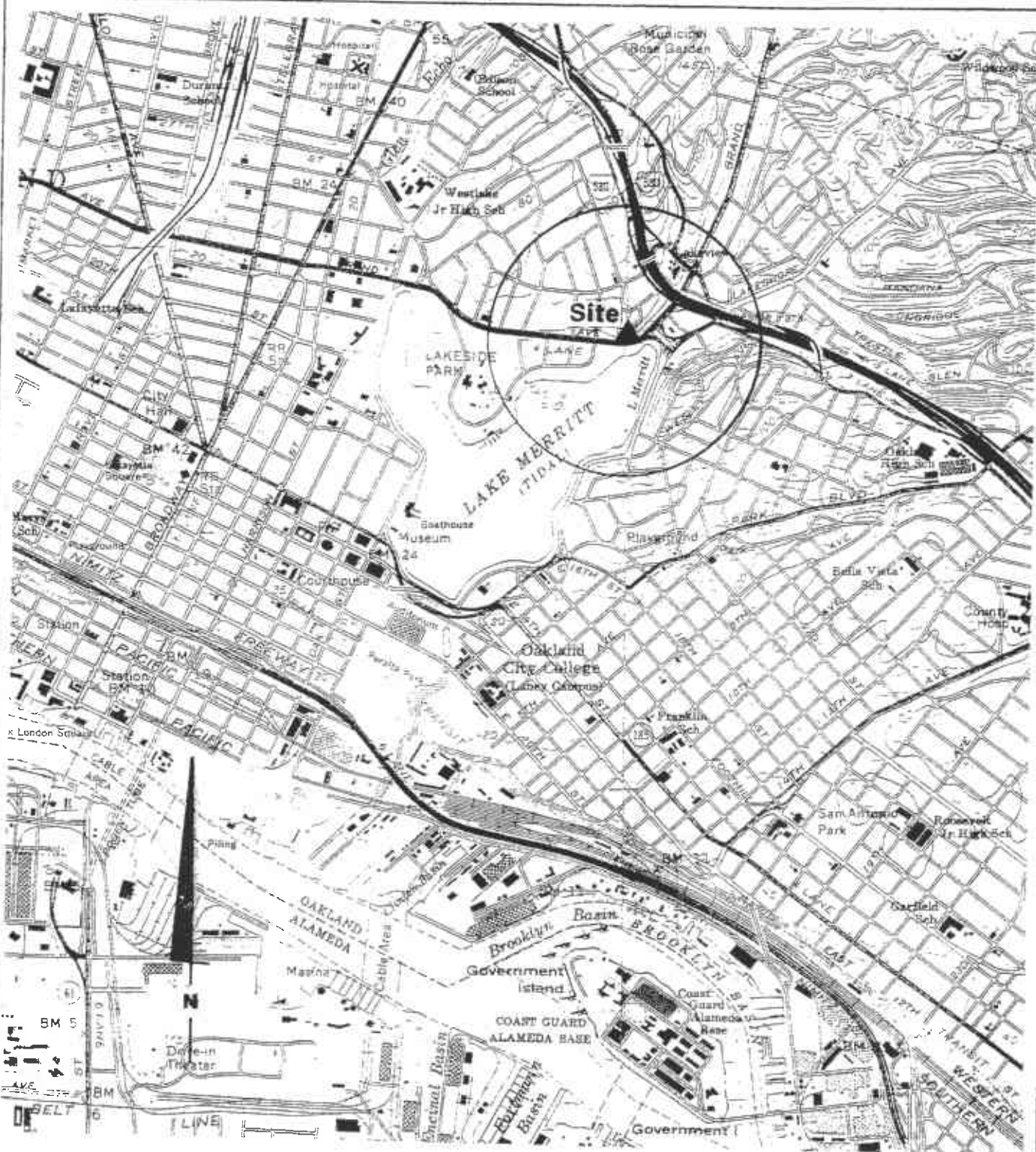
Pacific Environmental Group, Inc., Well Completion Report, April 20, 1993.

Resna, *Quarterly Groundwater Monitoring, Fourth Quarter 1992 at Former Texaco Station, 500 Grand Avenue, Oakland, California*, February 22, 1993.

Texaco Refining and Marketing, Inc., Correspondence Letter, October 12, 1993.

ATTACHMENT A

HISTORICAL SITE MAPS



Ref: USGS, 7.5 Minute
 Topographic Map, Oakland
 West, California, Photo
 revised 1980.



Harding Lawson Associates
 Engineers and Geoscientists

Regional Map
 Former Texaco Service Station
 500 Grand Avenue
 Oakland, California

PLATE
1

DRAWN
 YC

JOB NUMBER
 2251,081.03

APPROVED
 AR

DATE
 5/89

REVISED

DATE



EUCLID AVENUE

SIDEWALK

FORMER SERVICE
STATION OFFICE

FORMER SERVICE
AREA

FORMER PUMP
ISLANDS

FORMER UNDERGROUND
STORAGE TANKS

SIDEWALK

GRAND AVENUE



LEGEND



FORMER EXCAVATION AREAS

PLOT PLAN

TEXACO OIL COMPANY
500 Grand Avenue
Oakland, California



Converse Environmental West

| | | | |
|-------------|----------|-------------|--------------|
| Scale | AS SHOWN | Project No. | 93-44-197-02 |
| Prepared by | TNW | Date | 3/11/93 |
| Checked by | GLM | Drawing No. | 2 |
| Approved by | PAF | | |



EUCLID AVENUE

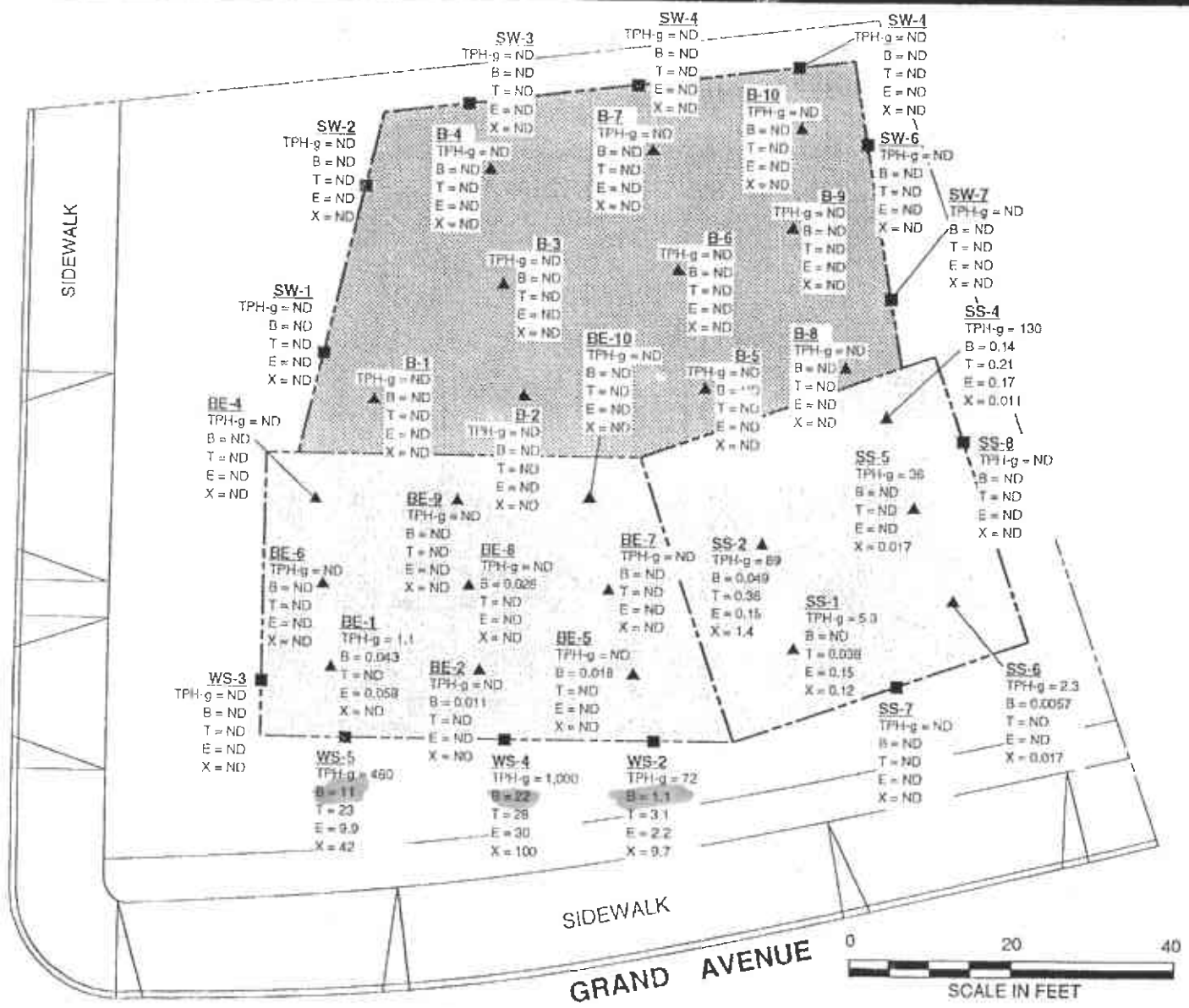
SIDEWALK

SIDEWALK

GRAND AVENUE

LEGEND

- ▲ FIT SAMPLE LOCATION
- SIDEWALL SAMPLE LOCATION
- TPH-g = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE (in milligrams per kilogram)
- B = BENZENE (in milligrams per kilogram)
- T = TOLUENE (in milligrams per kilogram)
- E = ETHYLBENZENE (in milligrams per kilogram)
- X = XYLENES (in milligrams per kilogram)
- ND = NOT DETECTED AT METHOD DETECTION LIMIT
- ▭ EXCAVATIONS (April/May 1992)
- ▨ EXCAVATION (January 1993)

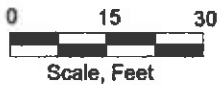
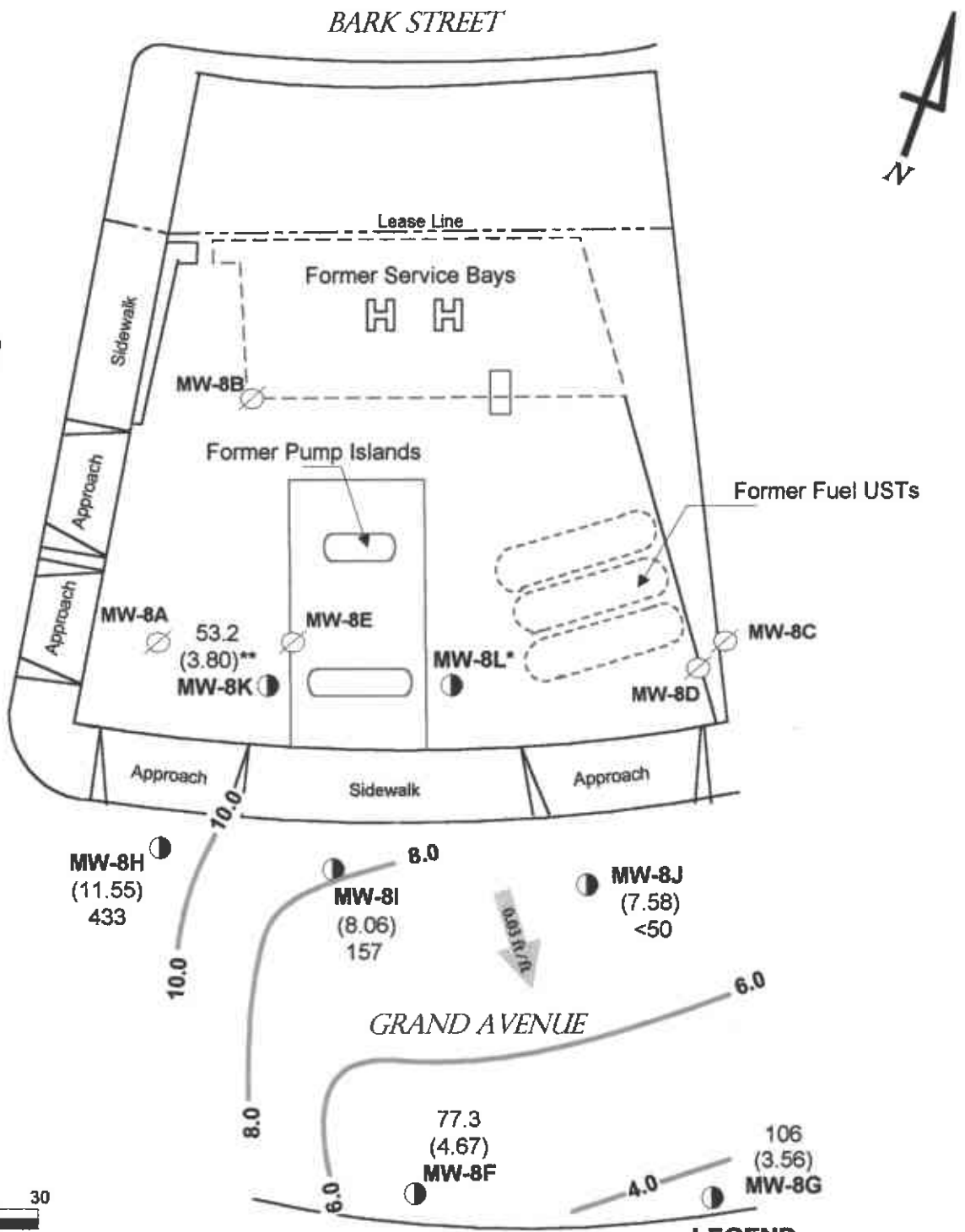


PLAN: EXCAVATION LIMITS, SAMPLE LOCATIONS and ANALYTICAL RESULTS

TEXACO OIL COMPANY
500 Grand Avenue
Oakland, California

| | | | |
|-------------|----------|-------------|--------------|
| Scale | AS SHOWN | Project No. | 63-44-197-02 |
| Prepared by | TNW | Date | 3/11/93 |
| Checked by | GLM | Drawing No. | |
| Approved by | PAF | | |





LEGEND

- MW-8K** ● Monitoring Well Location and Designation
- MW-8D** ∅ Abandoned Monitoring Well Location/Designation
- (4.67) Groundwater Elevation (Feet, MSL); Measured 11/06/00
- 10.0** Groundwater Elevation Contour (Feet, MSL)
- Approximate Groundwater Flow Direction/Gradient
- 157 TEPH with Silica Gel Cleanup Concentration (Parts Per Billion); Sampled 11/06/00
- * Removed From Gauging/Sampling Program
- ** Anomalous Data; Not Used in Contouring

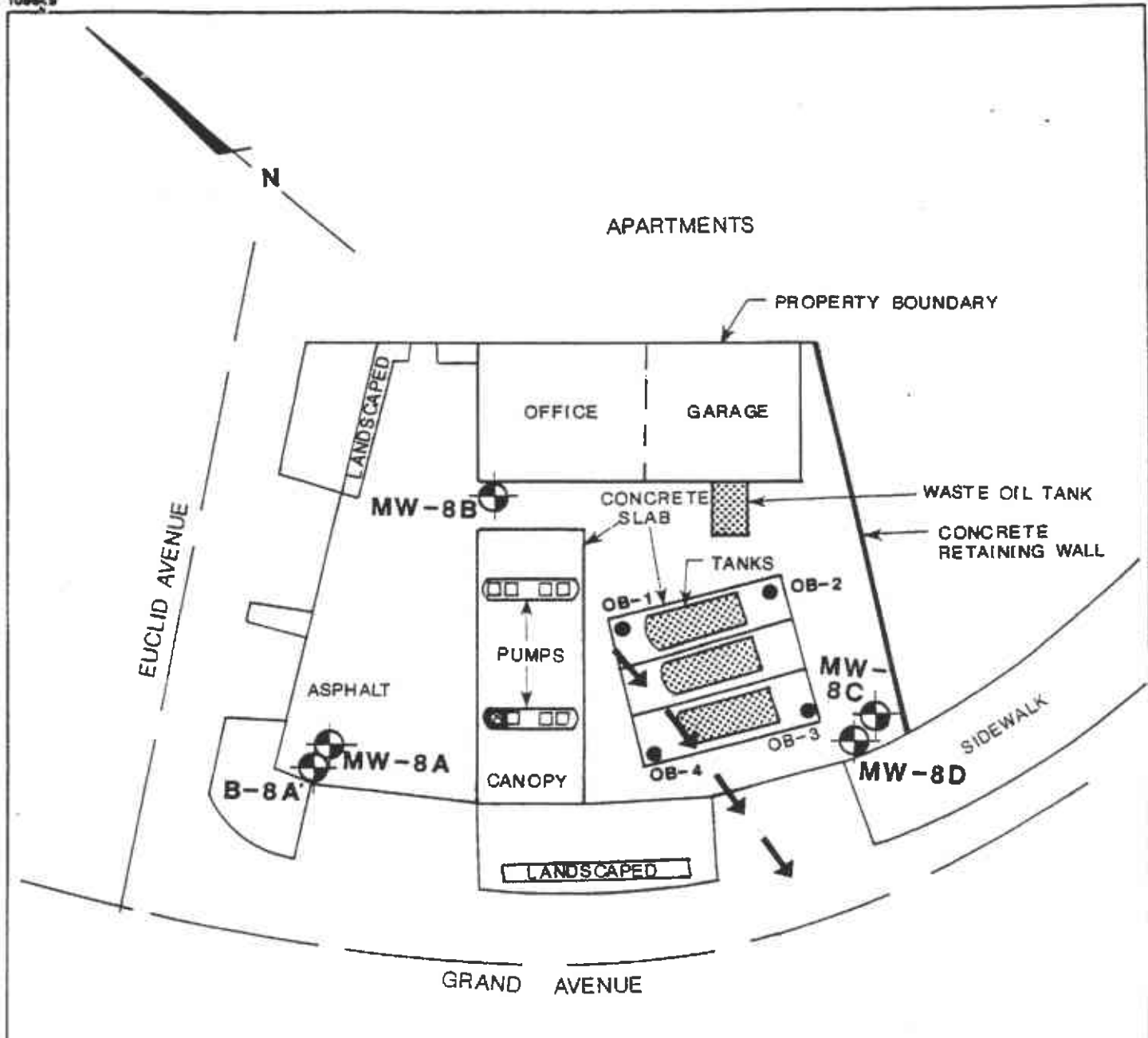
LAKE MERRIT PARK

Groundwater Monitoring and Sampling Map





Former Texaco Service Station
500 Grand Avenue at Euclid Avenue
Oakland, California

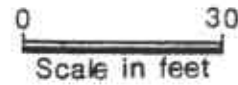
KHM
ENVIRONMENTAL
MANAGEMENT,
INC.

| DATE | PROJECT | FIGURE |
|----------|--------------|--------|
| 01/03/01 | C80-000500G1 | 1 |



EXPLANATION

- MW-8B  Monitoring Well Location and Number
- OB-1  Observation Well and Number
-  Ground-water Flow Direction
-  Bench Mark (HLA Datum El. = 100 feet)



Harding Lawson Associates
Engineers and Geoscientists

Site Plan
Texaco Station-62488000235
500 Grand Avenue
Oakland, California

PLATE

2

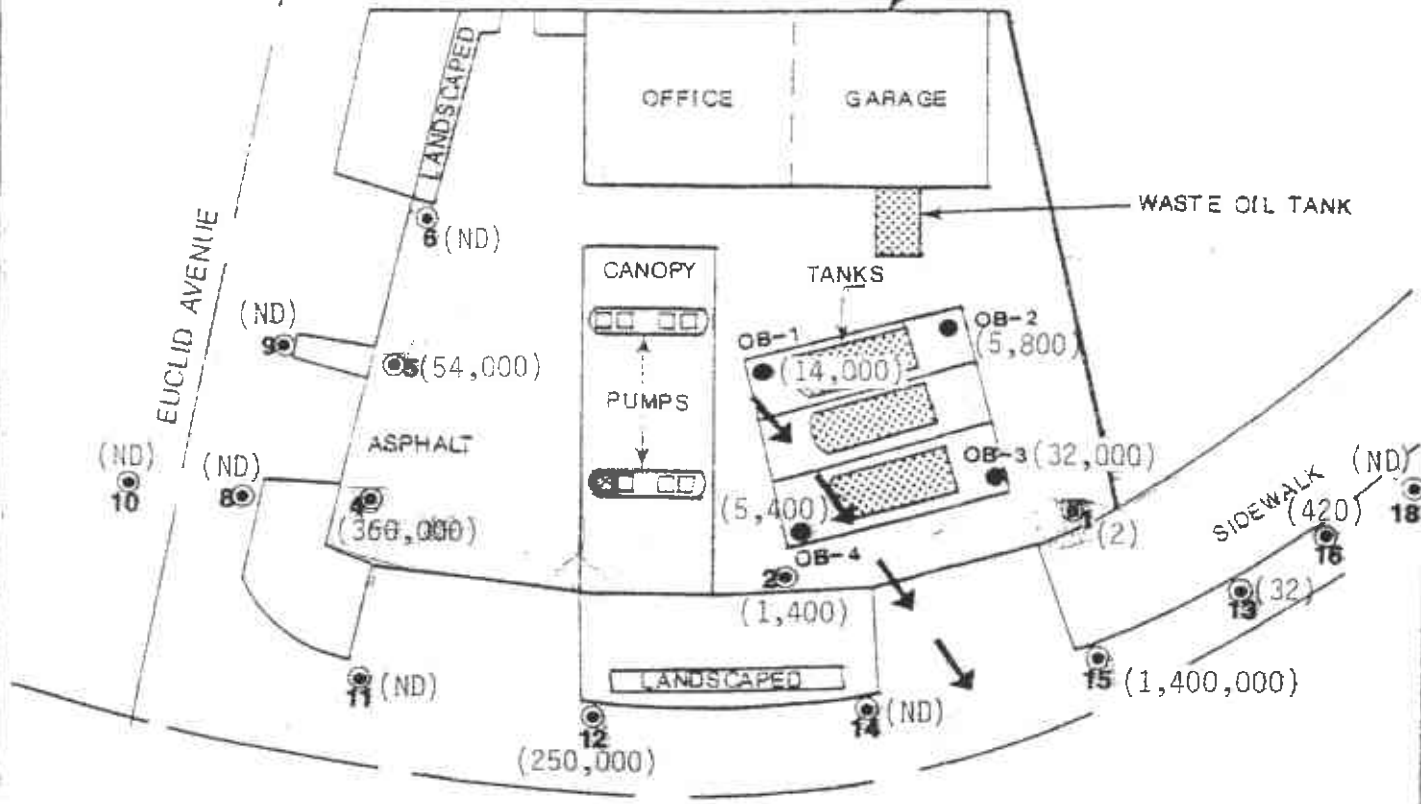
| | | | | | |
|-------------|---------------------------|----------------|--------------|---------|------|
| DRAWN AG | JOB NUMBER 2251,054.04 | APPROVED 40 | DATE 5/88 | REVISED | DATE |
|-------------|---------------------------|----------------|--------------|---------|------|

0 30
SCALE IN FEET

N

APARTMENTS

PROPERTY BOUNDARY



LEGEND

OB-1 ● Observation Well and Number

← Ground-water Flow Direction

●12 Soil-gas Probe Location and Number
(250,000) (total hydrocarbon concentration ug/l)

GRAND AVENUE



Harding Lawson Associates
Engineers and Geoscientists

Soil-Gas Probe Locations
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE
3

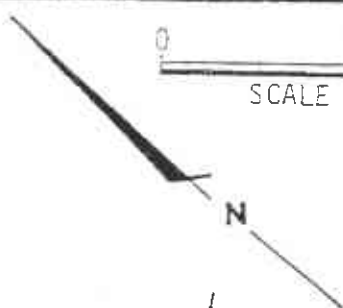
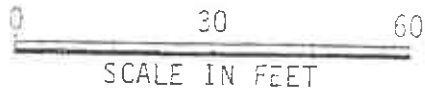
DRAWN
Y.C.

JOB NUMBER
2251,081.03

APPROVED
AK

DATE
5/89

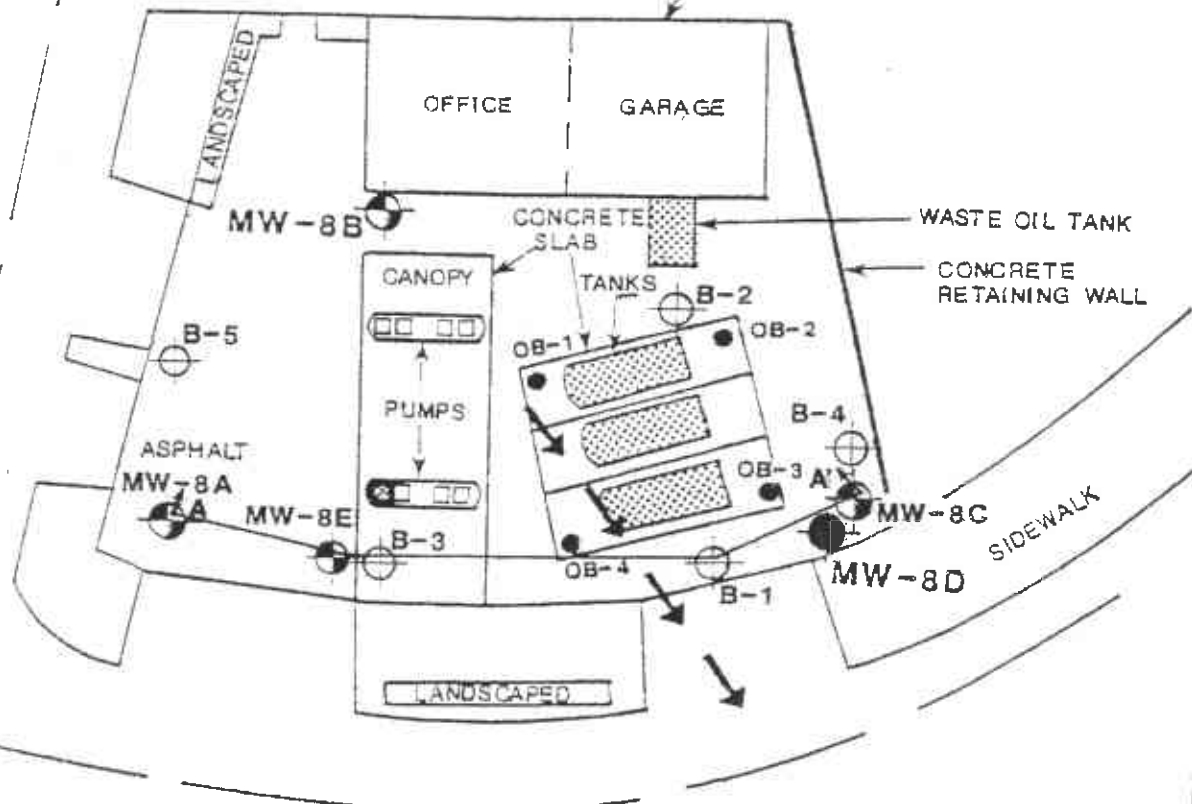
REVISIONS



APARTMENTS

PROPERTY BOUNDARY

EUCLID AVENUE



LEGEND

- Monitoring Well
- Observation Well
- Ground-water Flow Direction
- Boring
- Abandoned Monitoring Well
- Bench Mark (HLA Datum E1.=100 feet)
- Geologic Cross-Section (plate 16)

GRAND AVENUE

MW-8F

MW-8G















Harding Lawson Associates
Engineers and Geoscientists

Site Plan
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE
4

LEGEND

-  Monitoring Well
-  Observation Well
-  Soil Boring
-  Decommissioned Monitoring Well
-  Ground-Water flow direction
-  Bench Mark (HLA datum el. = 100 Feet)
-  Area of clay pipe excavation
-  Soil samples collected from trench
-  Clay pipe (abandoned sewer line?)
-  Air
-  Water
-  Electrical

620 Groundwater concentrations of TPH as motor oil in parts per billion. Samples collected 1/8/91

MW-8F
620

MW-8H
89

MW-8I
210

MW-8J
69

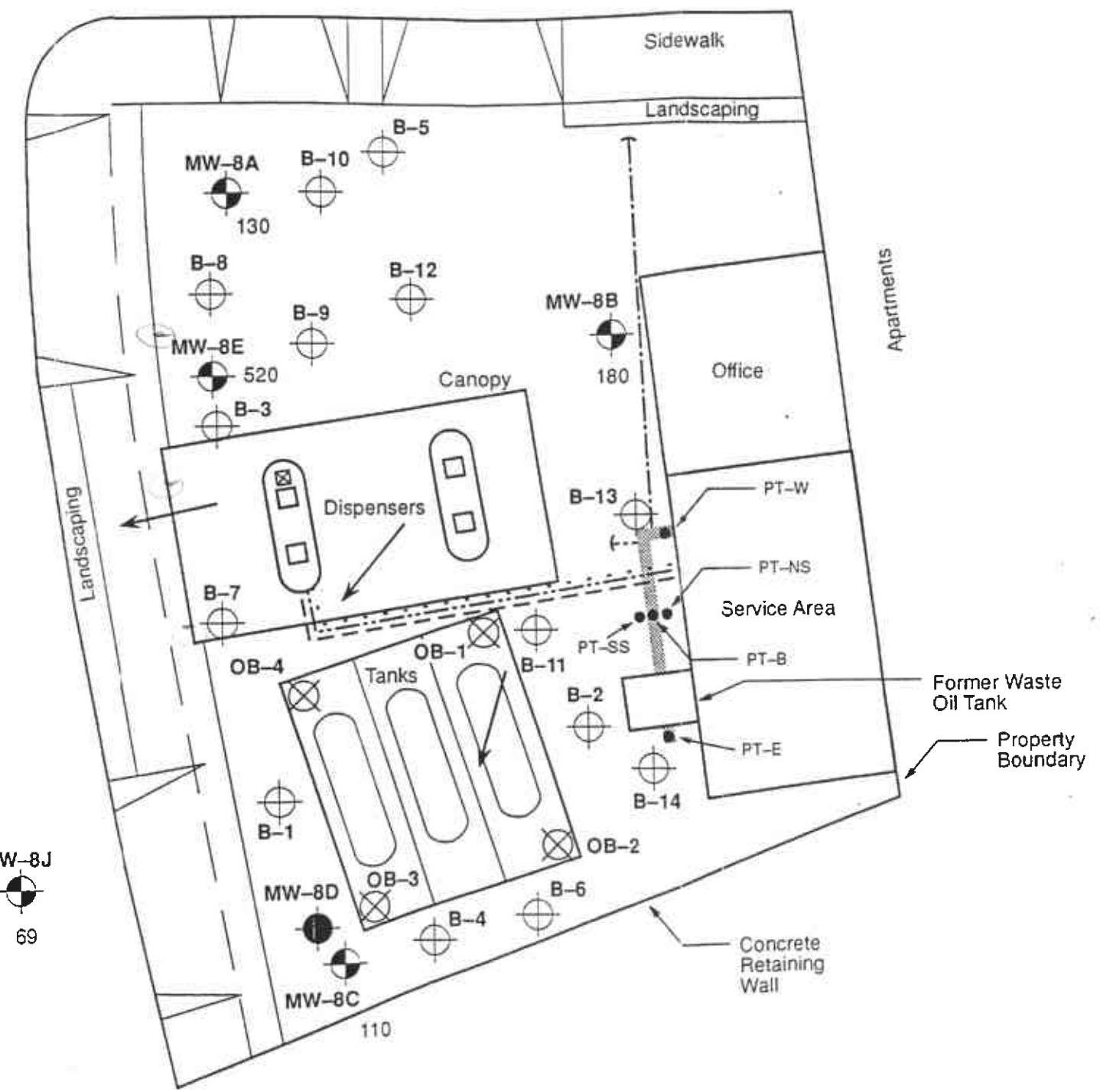
MW-8G
260

B-8K

0 20 40

EUCLID AVENUE

GRAND AVENUE



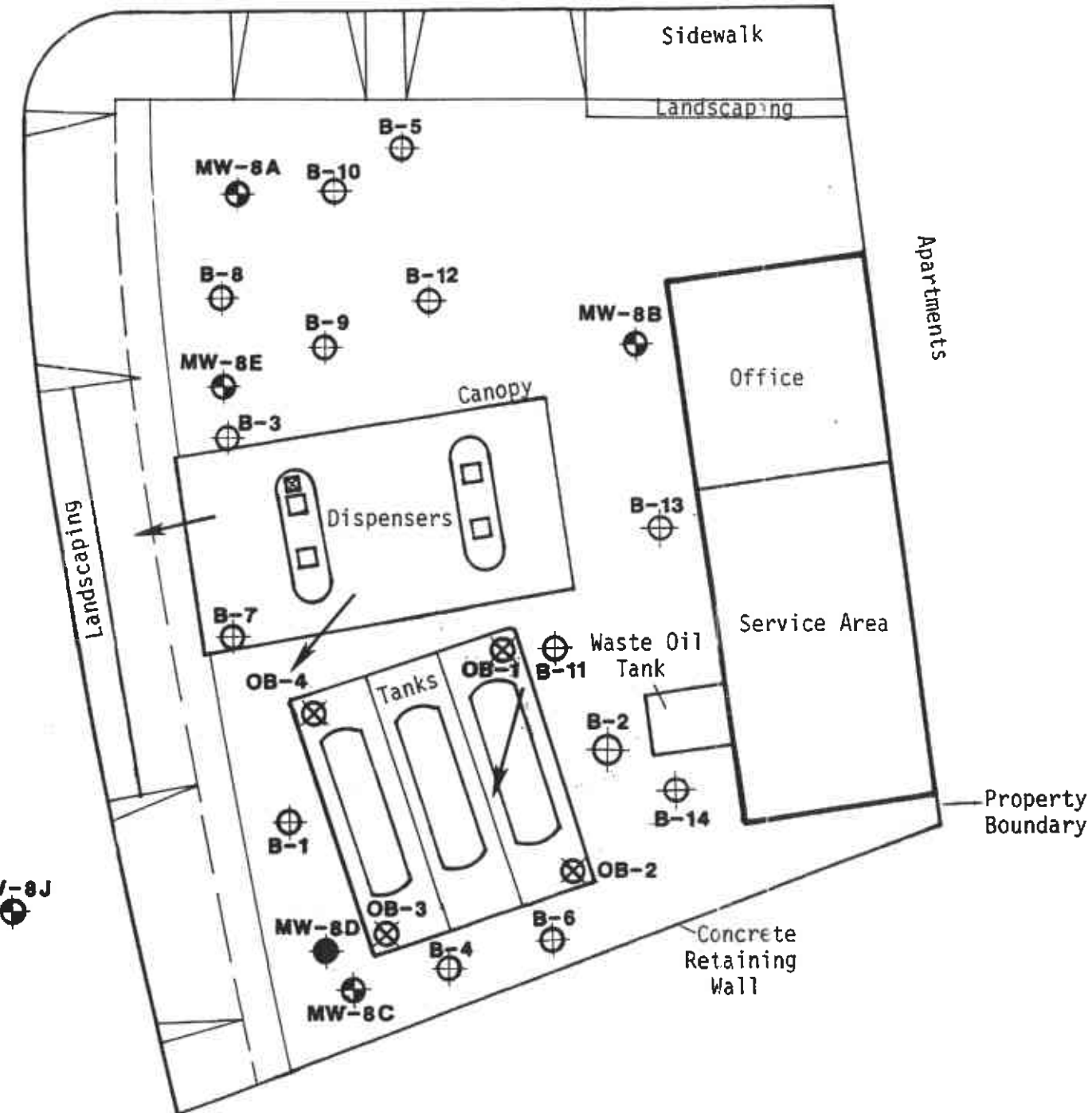
Harding Lawson Associates
Engineering and Environmental Services

Site Plan Showing TPH as Motor Oil Concentrations in Groundwater
Former Texaco Station
500 Grand Avenue
Oakland, California

EUCLID AVENUE



GRAND AVENUE



LEGEND

- Monitoring well
- Observation well
- Soil boring
- Decommissioned monitoring well
- Ground-water flow direction
- Bench mark (HLA datum el.=100 feet)

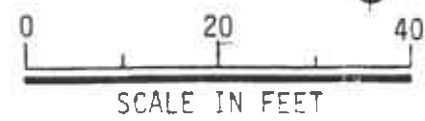
MW-8F


MW-8I

MW-8J

MW-8G

B-8K



 **Harding Lawson Associates**
Engineering and
Environmental Services

Site Plan
Former Texaco Station
500 Grand Avenue
Oakland, California

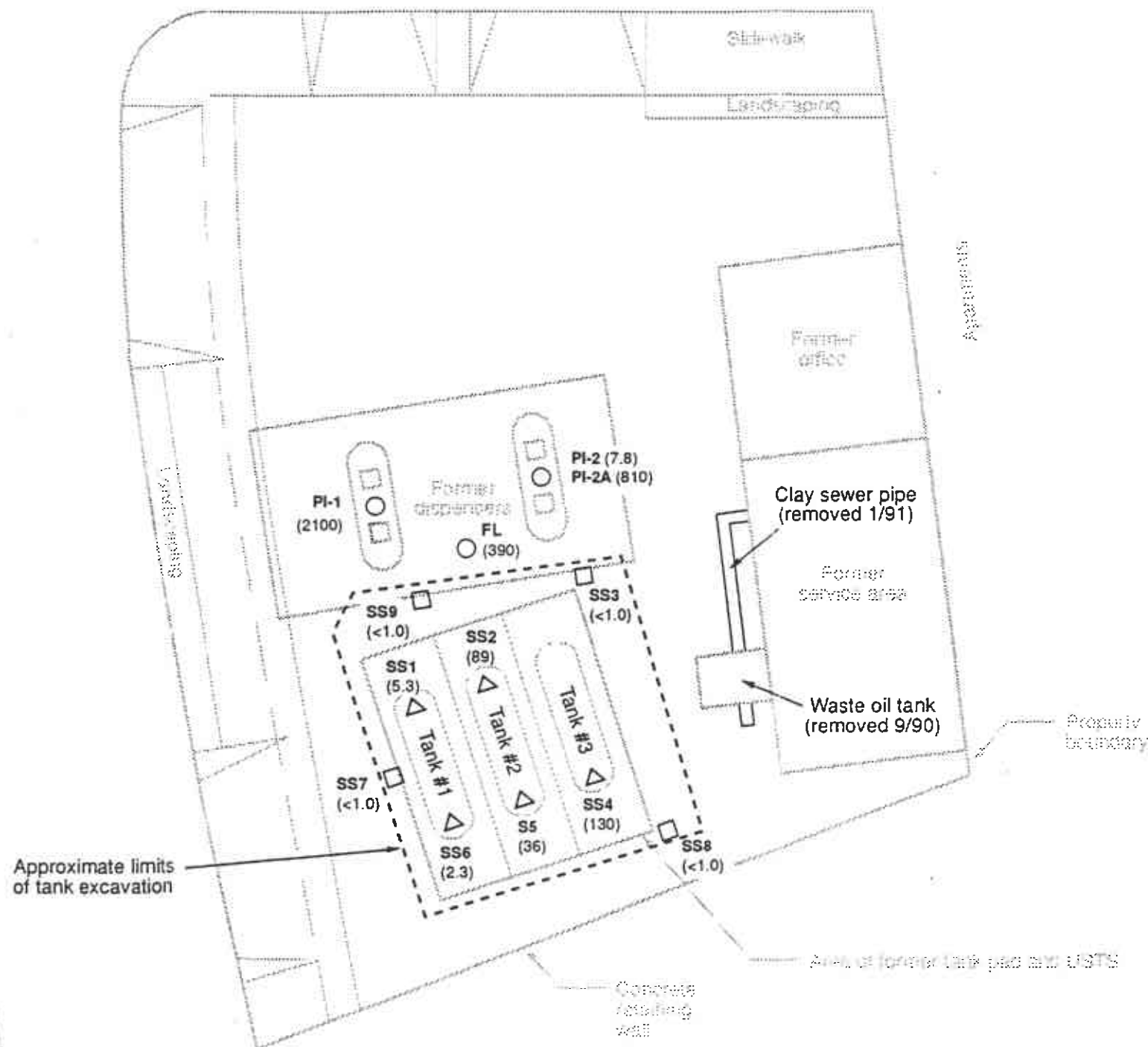
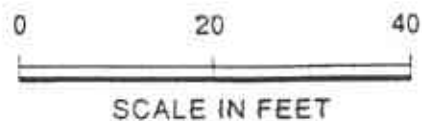
BUCLID AVENUE

GRAND AVENUE

Apartment

EXPLANATION

- △ Soil sample from bottom of tank excavation (approximately 10 feet below grade)
- Soil sample from wall of tank excavation (5 to 10 feet below grade)
- Soil sample from pump island (PI) or fuel line (FL); sample depths 5-6 feet below grade
- (2.3) Total petroleum hydrocarbons as gasoline, in mg/kg (ppm)

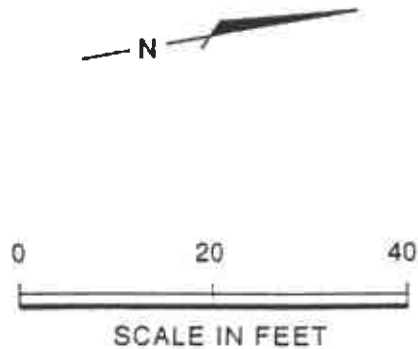
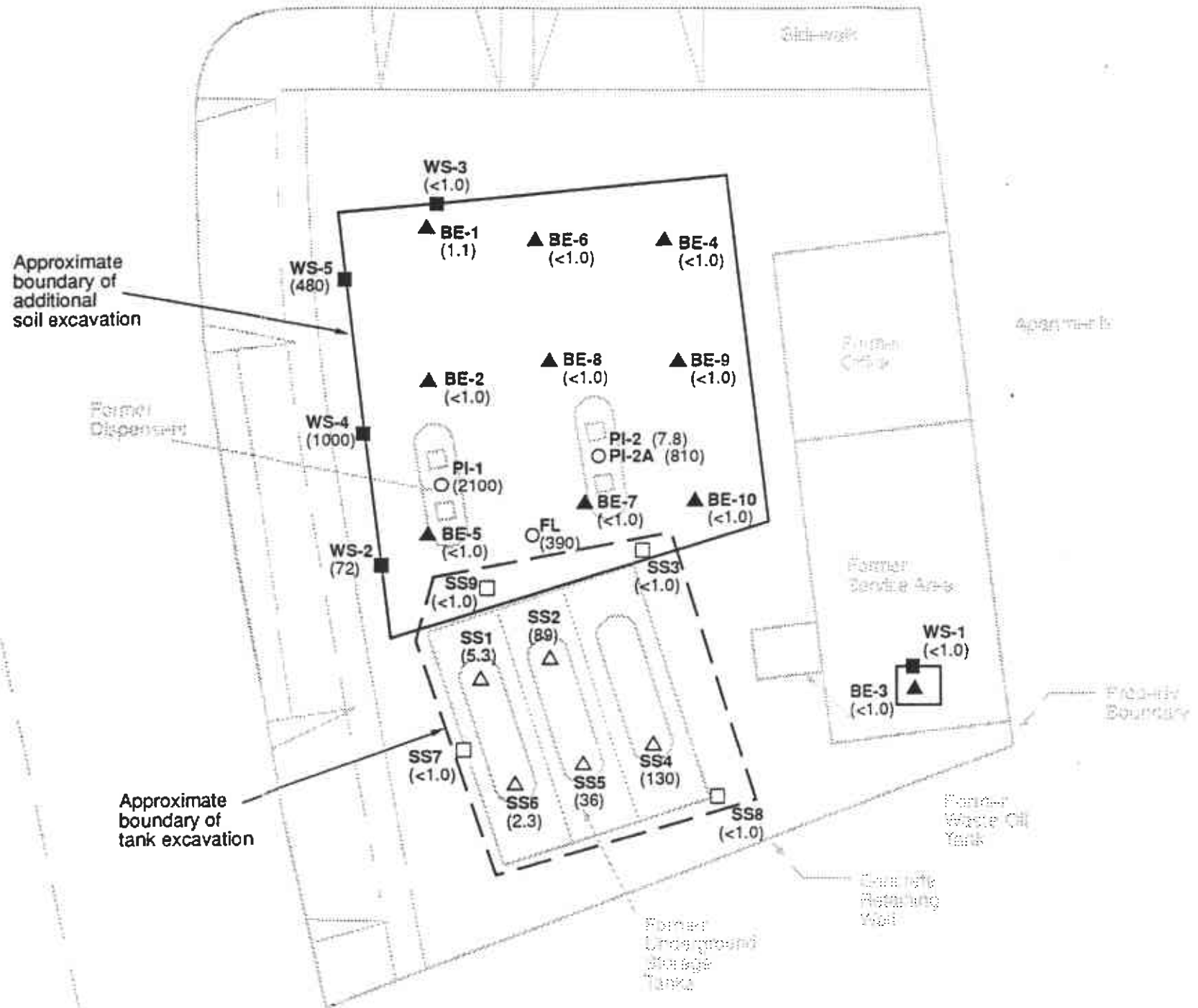


EXPLANATION

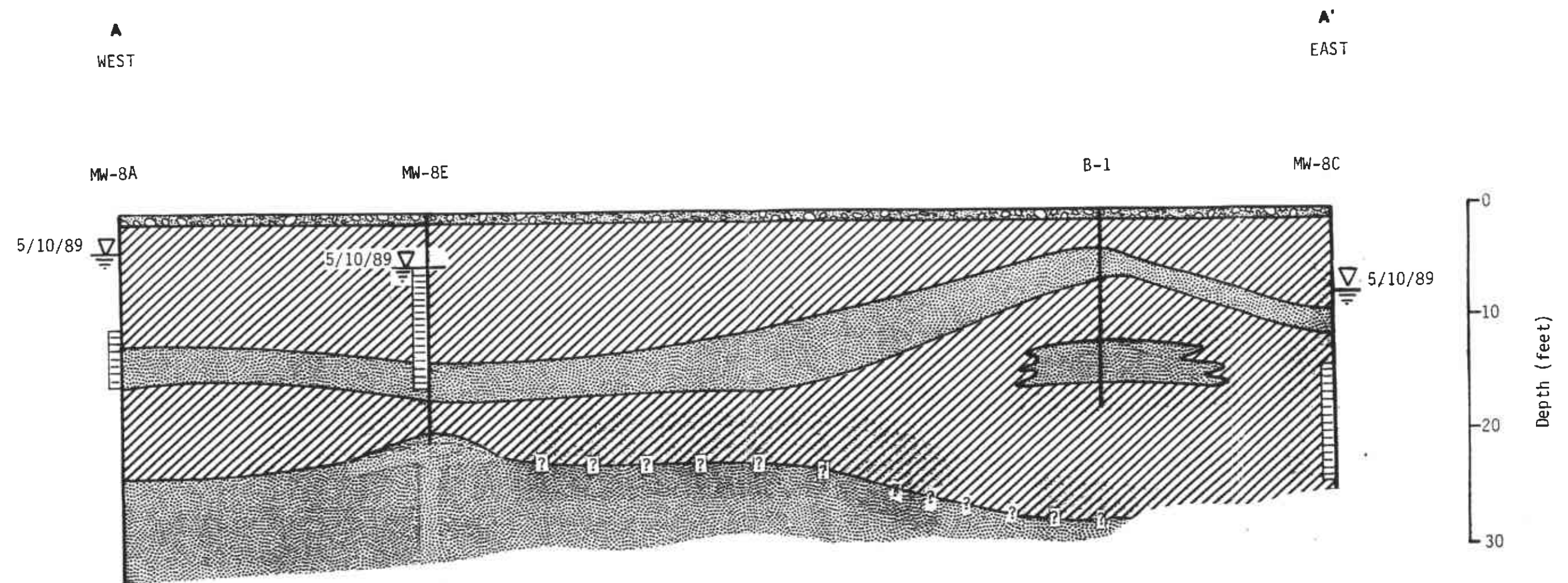
- Approximate boundary of excavation at the time of tank removal (April 14 and 15, 1992)
- △ Soil sample (SS) from bottom of tank excavation (approximately 10 feet below grade)
- Soil sample (SS) from wall of tank excavation (5 to 10 feet below grade)
- Approximate boundary of soil excavation (May 5 and 6, 1992)
- Soil sample from pump island (PI) of fuel line (FL) prior to excavation (5 to 6 feet below grade)
- ▲ Soil sample (BE) from bottom of excavation (4.5 to 9 feet below grade)
- Soil sample (WS) from wall of excavation (5 to 7.5 feet below grade)
- (2.3) Total petroleum hydrocarbons as gasoline, in mg/kg (ppm)

GRAND AVENUE





EUCLID AVENUE



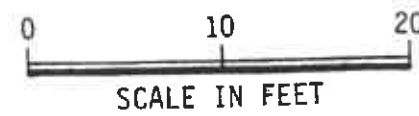
| | | | |
|--|--|---|--------------------------------|
| | Harding Lawson Associates | Locations Sampled During | PLATE |
| | Engineering and Environmental Services | Excavation Operations | 6 |
| | | Former Service Station 500 Grand Avenue Oakland, California | |
| | DRAWN SRG | JOB NUMBER 10262.169 | APPROVED <i>[Signature]</i> |
| | | DATE 09/12/92 | REVISED DATE |



LEGEND

-  Asphalt/Sub Base
-  Clay
-  Clayey Sand
-  Screened interval and 5/89 stabilized water level

Horizontal Scale



HLA **Harding Lawson Associates**
Engineers, Geologists
& Geophysicists

East-West Geologic Cross Section
Former Texaco Service Station
500 Grand Avenue
Oakland, California

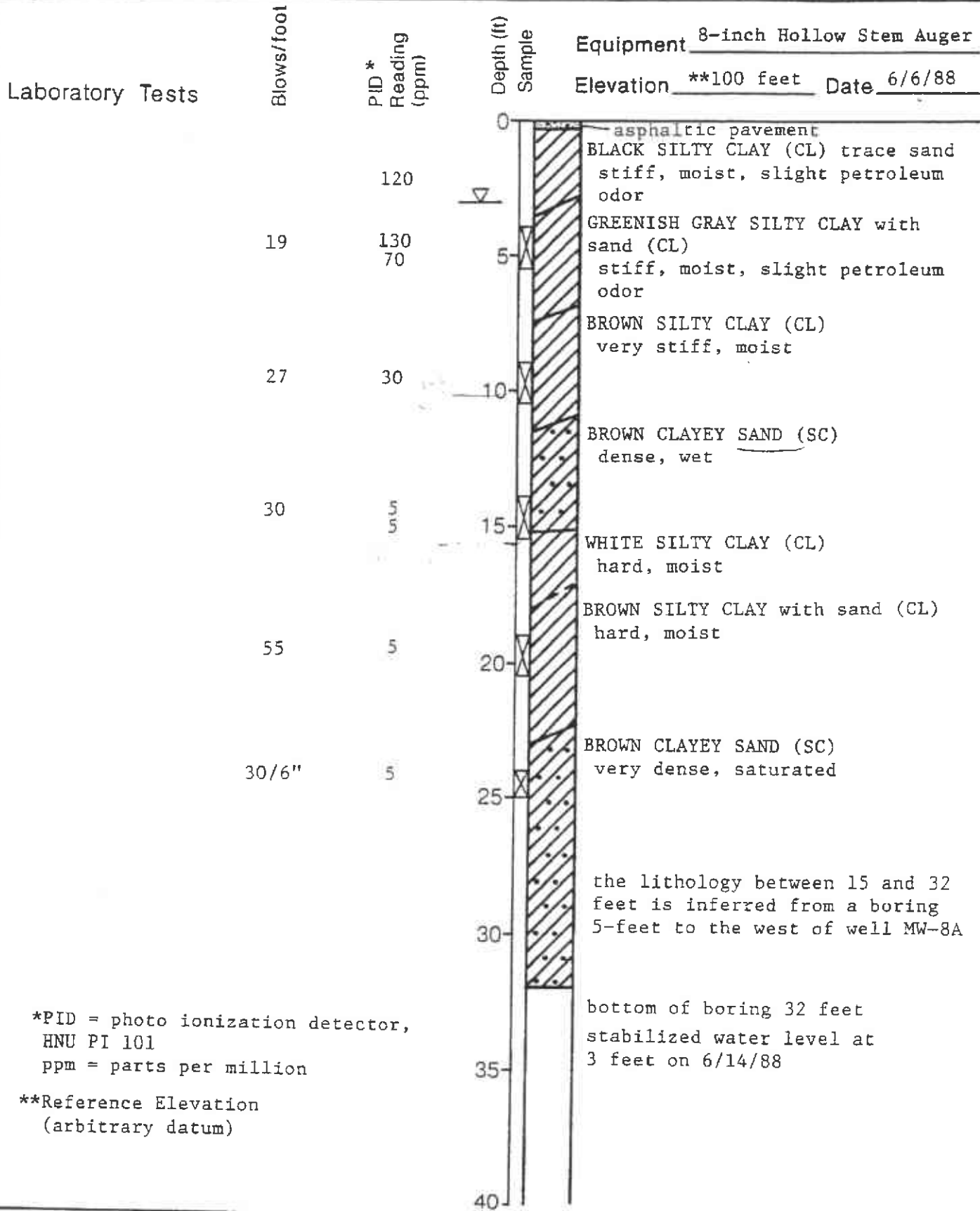
PLATE

16

| | | | | | |
|-------------|---------------------------|-----------------|--------------|---------|------|
| DRAWN KH | JOB NUMBER 2251,081.03 | APPROVED SJD | DATE 6/89 | REVISED | DATE |
|-------------|---------------------------|-----------------|--------------|---------|------|

ATTACHMENT B

BORING LOGS



*PID = photo ionization detector,
HNU PI 101
ppm = parts per million

**Reference Elevation
(arbitrary datum)



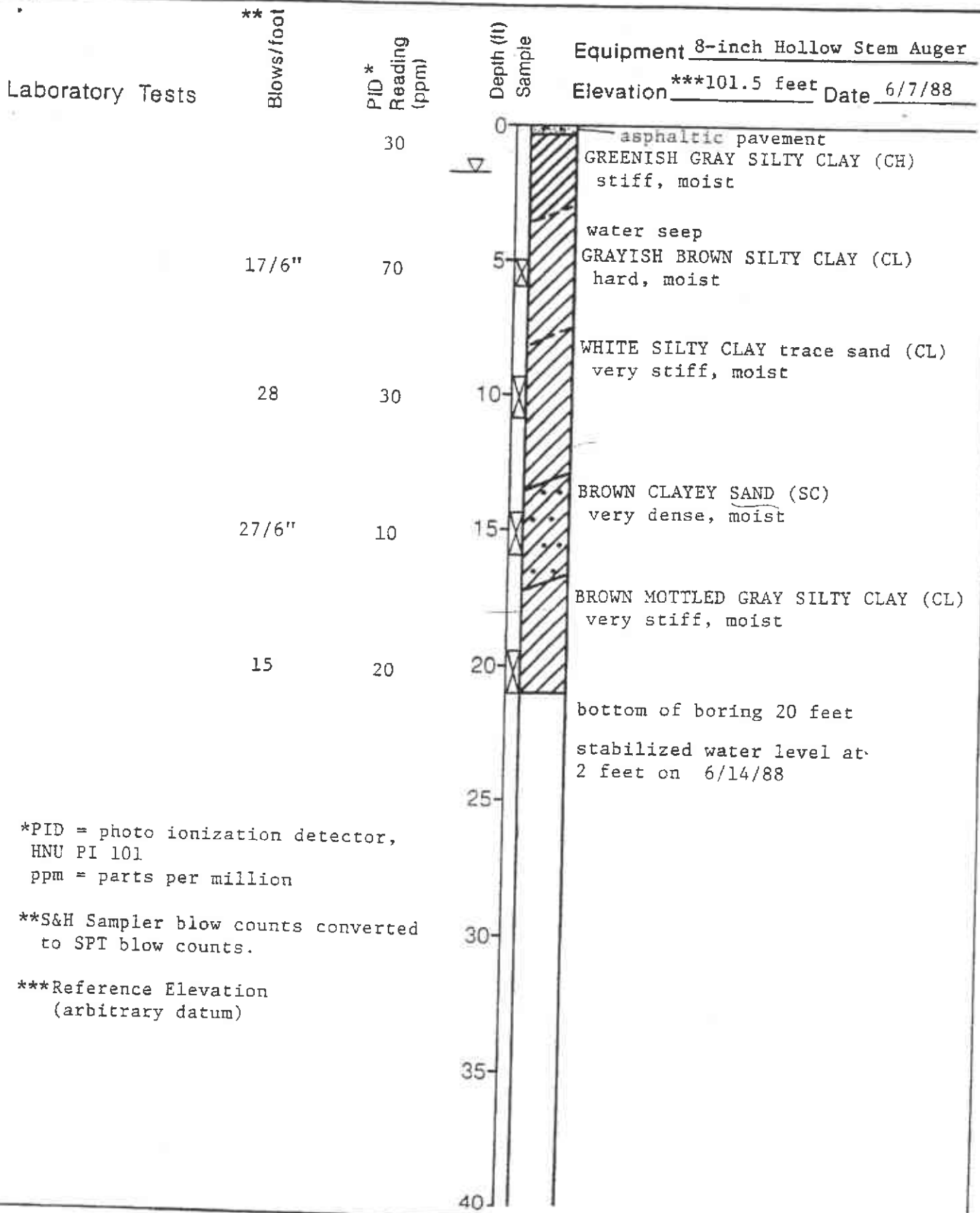
Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring MW-8A

Texaco Station - 62488000235
500 Grand Avenue
Oakland, California

PLATE

3



*PID = photo ionization detector,
HNU PI 101
ppm = parts per million

**S&H Sampler blow counts converted
to SPT blow counts.

***Reference Elevation
(arbitrary datum)



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring MW-8B
Texaco Station - 62488000235
500 Grand Avenue
Oakland, California

PLATE
4

Laboratory Tests

Blows/foot

PID *
Reading
(ppm)

Depth (ft)
Sample

Equipment 8-inch Hollow Stem Auger

Elevation ***98.7 feet Date 6/7/88

**21

100

**22

50

32

50

26

40

27

10

0 asphaltic pavement
 GRAYISH BROWN CLAYEY SAND (SC)
 dense, moist
 GRAY GRAVELLY SAND (SW)
 dense, saturated
 GRAYISH BROWN CLAYEY SAND (SC)
 dense, moist
 GRAYISH BROWN SILTY CLAY
 trace sand (CL)
 very stiff, moist
 BROWN SILTY CLAY (CL)
 hard, moist
 BROWN CLAYEY SAND (SC)
 dense, moist
 BROWN MOTTLED GRAY SILTY CLAY (CL)
 moist, hard, with 1 to 2 inches
 brown sand lenses (SP)
 15
 BROWN SILTY CLAY (CL)
 very stiff, moist
 20
 GRAY SILTY CLAY (CH)
 very stiff, dry, intermixed
 with WHITE SILTY CLAY (CL)
 very stiff, dry
 25
 bottom of boring 24.5 feet
 stabilized water level at
 7.5 feet on 6/14/88
 30
 35
 40

*PID = photo ionization detector
 HNU PI 101
 ppm = parts per million

**S&H Sampler blow counts converted
 to SPT blow counts

***Reference Elevation
 (arbitrary datum)



Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

Log of Boring MW-8C

Texaco Station - 62488000235
 500 Grand Avenue
 Oakland, California

PLATE

5

DRAWN
 RS

JOB NUMBER
 2251,054.04

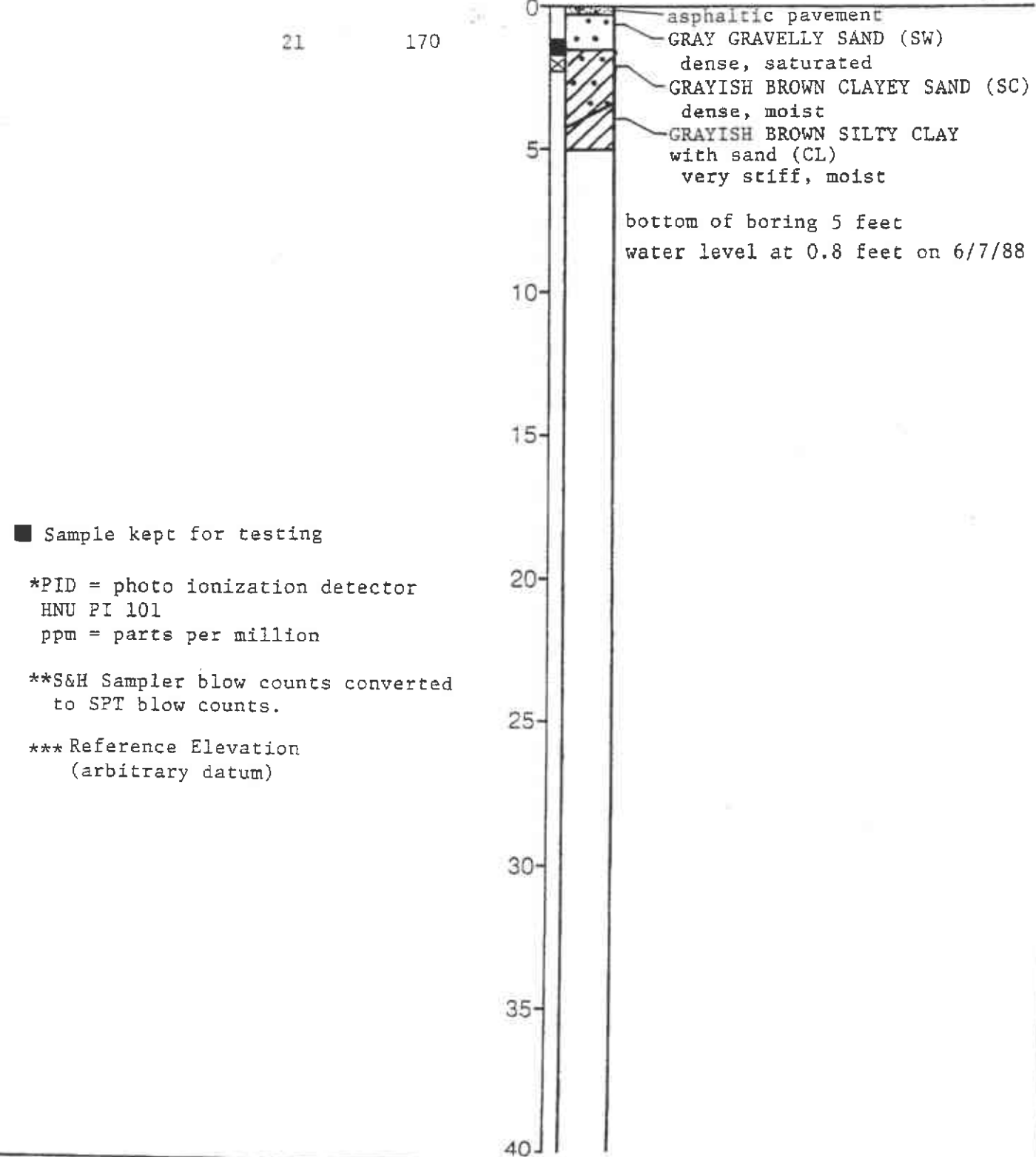
APPROVED
 JO

DATE
 7/88

REVISED

DATE

Laboratory Tests ****** Blows/foot PID* Reading (ppm) Depth (ft) Sample Equipment 8-inch Hollow Stem Auger
 Elevation ***98± feet Date 6/7/88



■ Sample kept for testing

*PID = photo ionization detector
 HNU PI 101
 ppm = parts per million

**S&H Sampler blow counts converted to SPT blow counts.

*** Reference Elevation (arbitrary datum)

Top of PVC Casing
 Elevation 99.72 feet
 (HLA Datum)

GROUND SURFACE

WATER TIGHT COVER

LOCKING
 WATERPROOF WELL CAP.

STEEL WELL
 HOUSING ENCLOSURE

8 IN. DIAMETER BORING

CEMENT/BENTONITE SANITARY SEAL

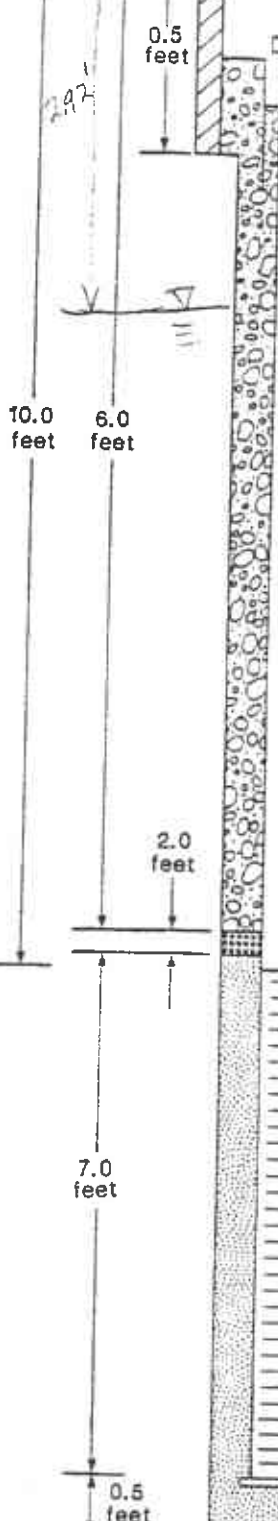
2 IN. DIAMETER SCHEDULE 40
 WELL CASING

BENTONITE PELLET SEAL

SAND FILTER PACK
 (size: #3 Monterey)

2 IN. DIAMETER SCHEDULE 40
 PVC WELL SCREEN (0.02 slot size)

BOTTOM CAP



NOT TO SCALE



Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

**Monitoring Well MW-8A
 Completion Detail**

Texaco Station - 62488000235
 500 Grand Avenue
 Oakland, California

PLATE

8

DRAWN
 RS

JOB NUMBER
 2251,054.04

APPROVED
 JO

DATE
 7/88

REVISED

DATE

FORM GWD

Top of PVC Casing
 Elevation 101.11 feet
 (HLA Datum)

GROUND SURFACE

WATER TIGHT COVER

LOCKING
 WATERPROOF WELL CAP

STEEL WELL
 HOUSING ENCLOSURE

8 IN. DIAMETER BORING

CEMENT/BENTONITE SANITARY SEAL

2 IN. DIAMETER SCHEDULE 40
 WELL CASING

BENTONITE PELLET SEAL

SAND FILTER PACK
 (size: #3 Monterey)

2 IN. DIAMETER SCHEDULE 40
 PVC WELL SCREEN (0.02 slot size)

BOTTOM CAP

14.5 feet
 10.5 feet

19.5 feet

20.0 feet

0.5 feet

2.0 feet

7.0 feet

0.5 feet

NOT TO SCALE

HLA **Harding Lawson Associates**
 Engineers, Geologists
 & Geophysicists

Monitoring Well MW-8B
Completion Detail
 Texaco Station - 62488000235
 500 Grand Avenue
 Oakland, California

PLATE

9

DRAWN
 RS
 FORM GW3

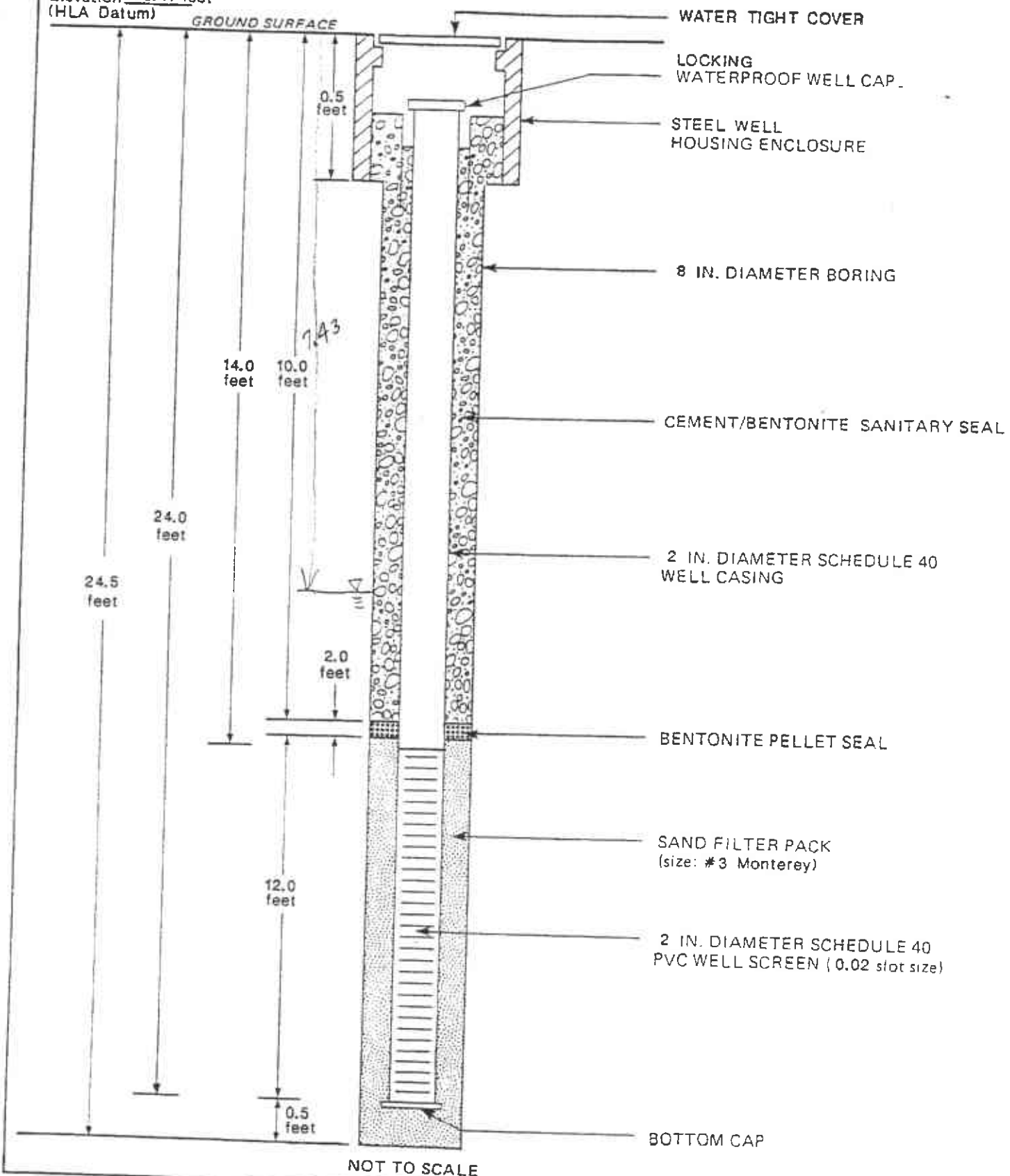
JOB NUMBER
 2251,054.04

APPROVED
 40

DATE
 7/88

REVISED DATE

Top of PVC Casing
 Elevation 98.41 feet
 (HLA Datum)



NOT TO SCALE



Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

**Monitoring Well MW-8C
 Completion Detail**
 Texaco Station - 6248800235
 500 Grand Avenue
 Oakland, California

DRAWN
 RS
 FORM GW3

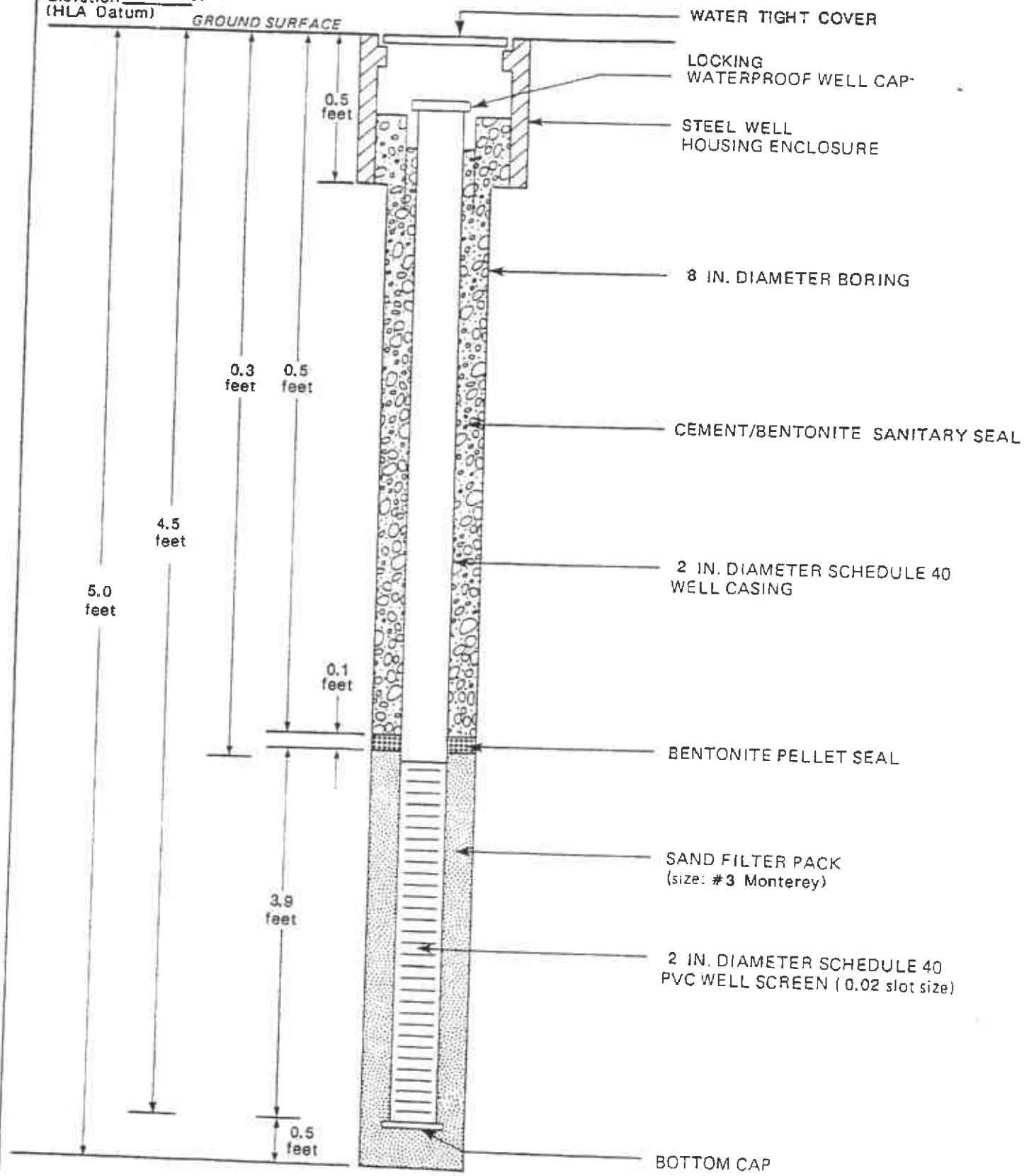
JOB NUMBER
 2251,054.04

APPROVED
 DO

DATE
 7/88

REVISED DATE

Top of PVC Casing
Elevation $98 \pm$ feet
(HLA Datum)



NOT TO SCALE

HLA **Harding Lawson Associates**
Engineers, Geologists
& Geophysicists

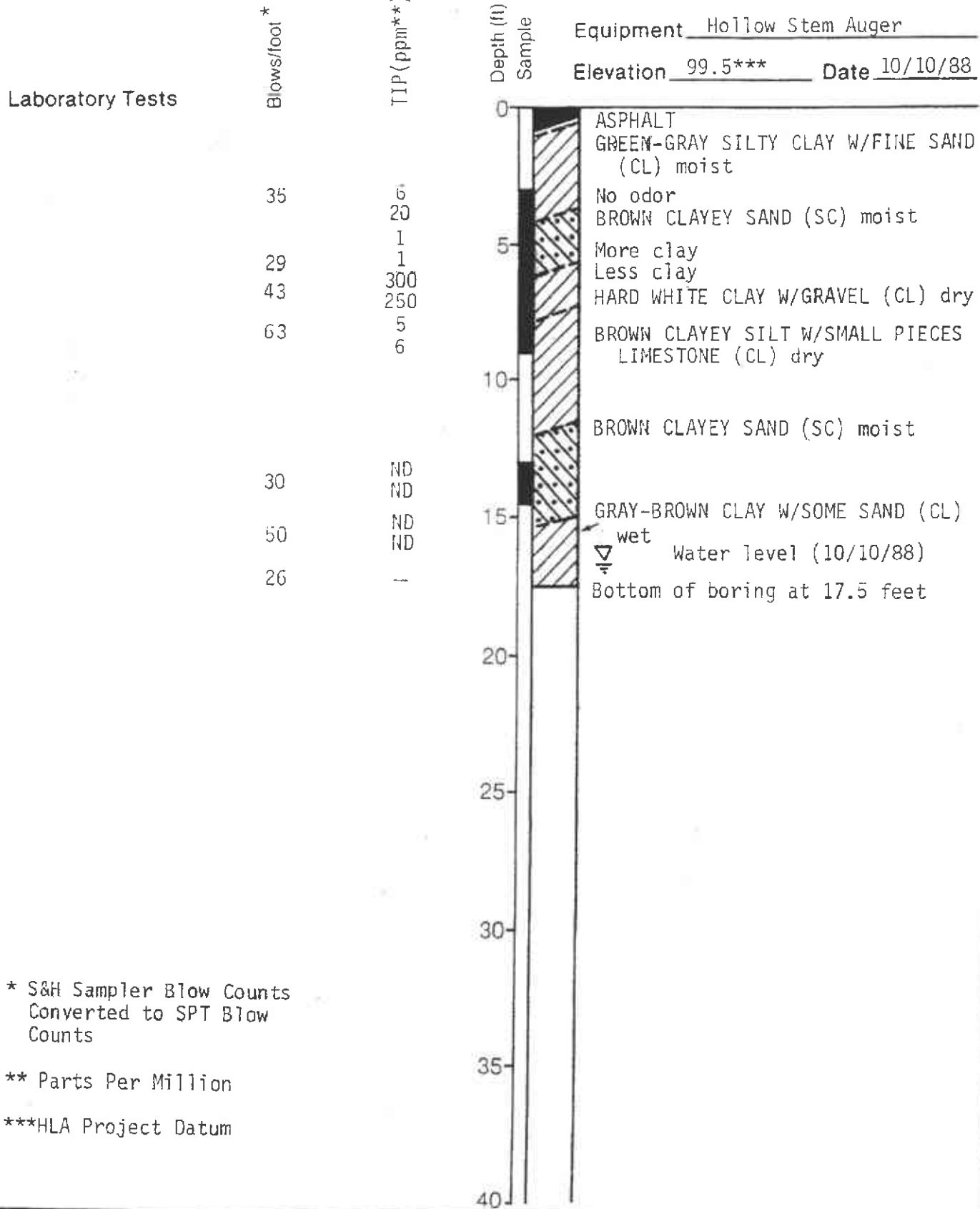
Monitoring Well MW-8D
Completion Detail
Texaco Station - 62488000235
500 Grand Avenue
Oakland, California

PLATE

11

| | | | | | |
|-------------|---------------------------|----------------|--------------|---------|------|
| DRAWN RS | JOB NUMBER 2251,054.04 | APPROVED 40 | DATE 7/88 | REVISED | DATE |
|-------------|---------------------------|----------------|--------------|---------|------|

FORM 7W3



* S&H Sampler Blow Counts
Converted to SPT Blow
Counts

** Parts Per Million

***HLA Project Datum



Harding Lawson Associates

Engineers Geologists
& Geophysicists

Log of Boring B-1

Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE

5

DRAWN
YC

JOB NUMBER
2251,081.03

APPROVED
SJP

DATE
11/88

REVISED

DATE

Laboratory Tests

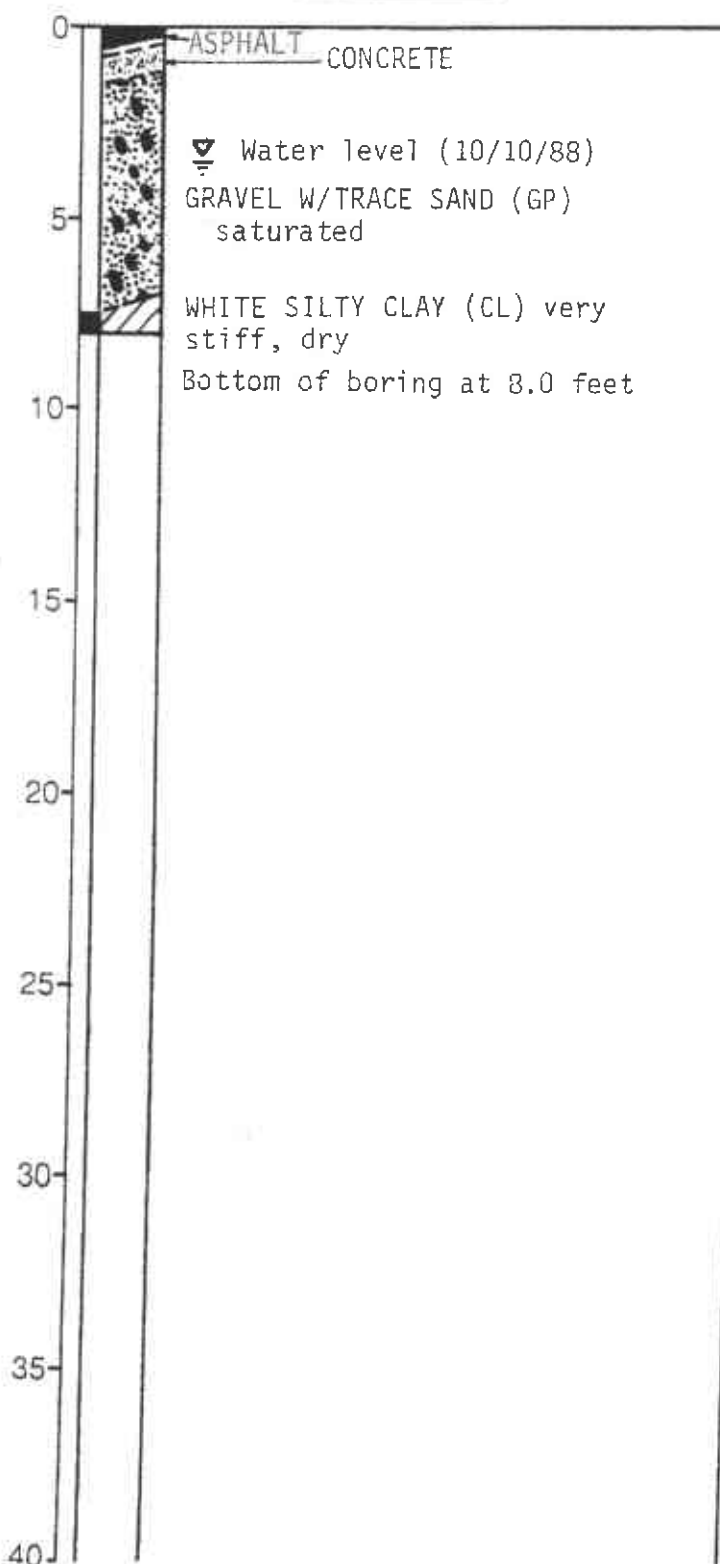
Blows/foot

TIP (ppm)

Depth (ft)
Sample

Equipment Hollow Stem Auger

Elevation 100 Date 10/10/88



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring B-2
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE

6

| | | | | | |
|-------------|---------------------------|-----------------|---------------|---------|------|
| DRAWN YC | JOB NUMBER 2251.081.03 | APPROVED SJO | DATE 11/88 | REVISED | DATE |
|-------------|---------------------------|-----------------|---------------|---------|------|

Laboratory Tests

Blows/foot

TIP (ppm)

Depth (ft)
Sample

Equipment Hollow Stem Auger

Elevation 99.5 Date 10/10/88

26

250

270

5

43

150

10

15

28

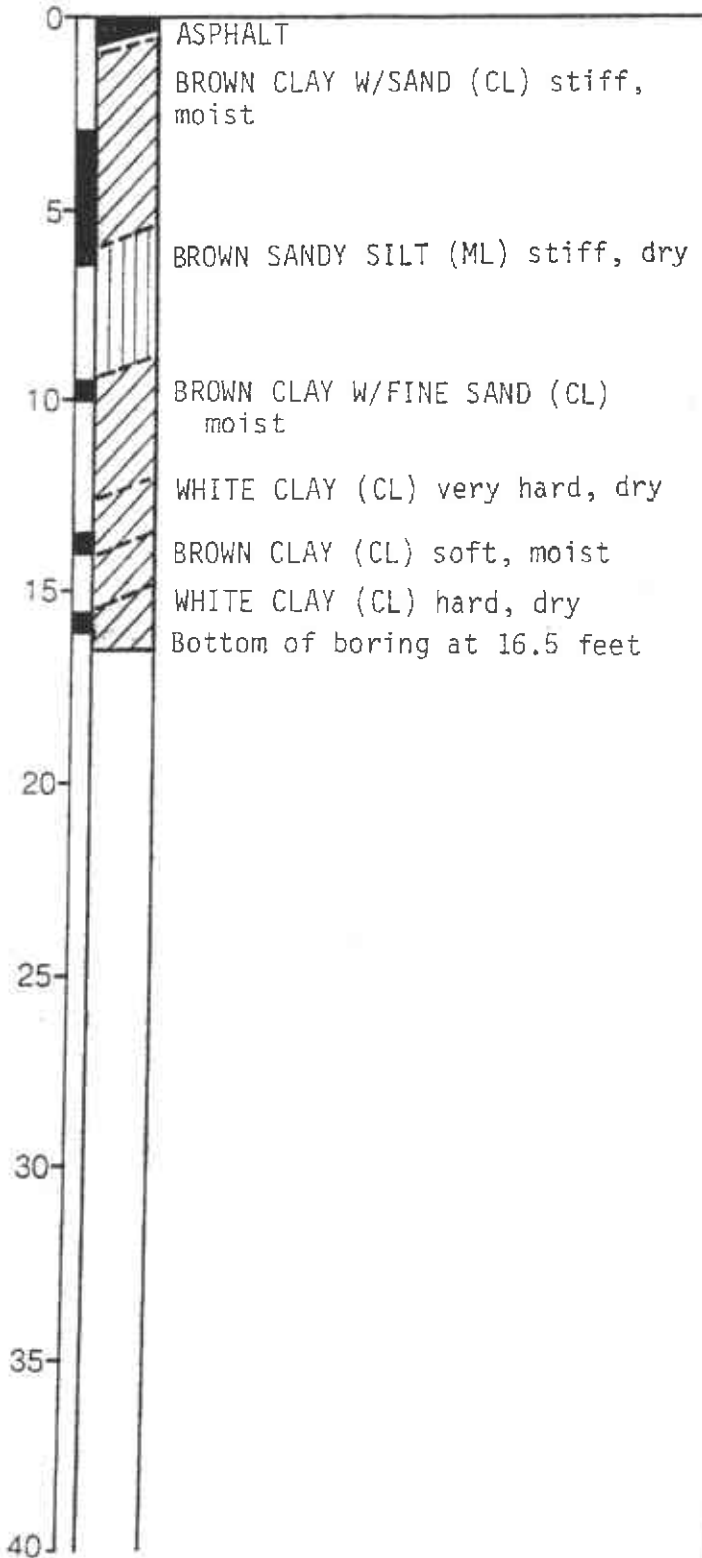
ND

ND

55

ND

39



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring B-3
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE

7

DRAWN
YC

JOB NUMBER
2251,081.03

APPROVED
SD

DATE
11/88

REVISED

DATE

Laboratory Tests

Blows/foot

TIP (ppm)

Depth (ft)
Sample

Equipment Hollow Stem Auger

Elevation 98.6 Date 10/10/88

29

1200
250

0

ASPHALT

BROWN-GRAY CLAY (CL) stiff,
moist, hydrocarbon odor

BROWN MEDIUM COARSE SAND (SC)
wet, hydrocarbon odor

5

68

3
2

WHITE CLAY (CL) hard, dry, no odor

45

10

BROWN CLAYEY SILT (CL) stiff, dry

Water level (10/10/88)

BROWN CLAYEY SILT W SAND (CL)
stiff, wet

15

Bottom of boring at 16.0 feet

20

25

30

35

40



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring B-4

Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE

8

DRAWN
YC

JOB NUMBER
2251,081.03

APPROVED
SJD

DATE
11/88

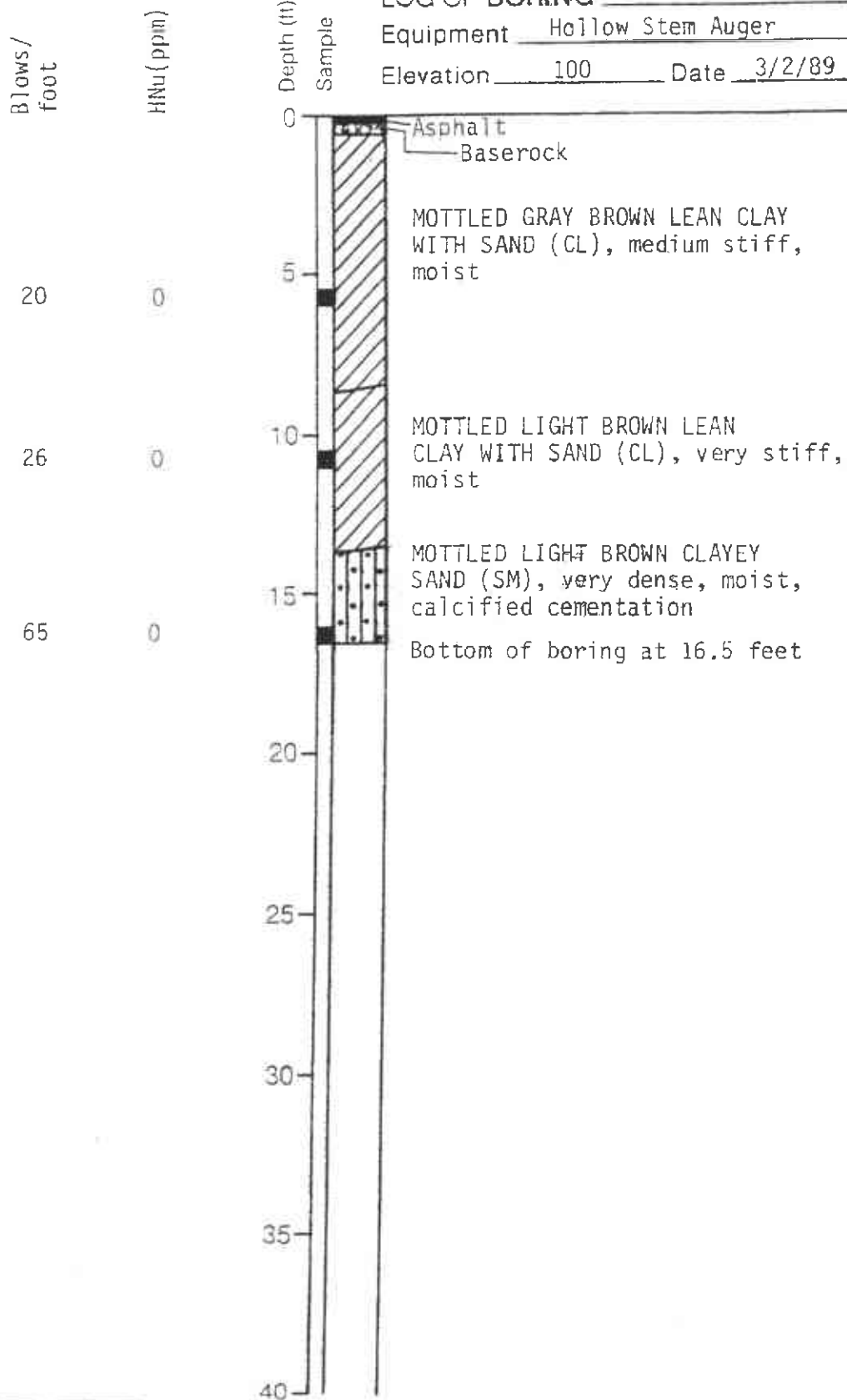
REVISED

DATE

LOG OF BORING B-5

Equipment Hollow Stem Auger

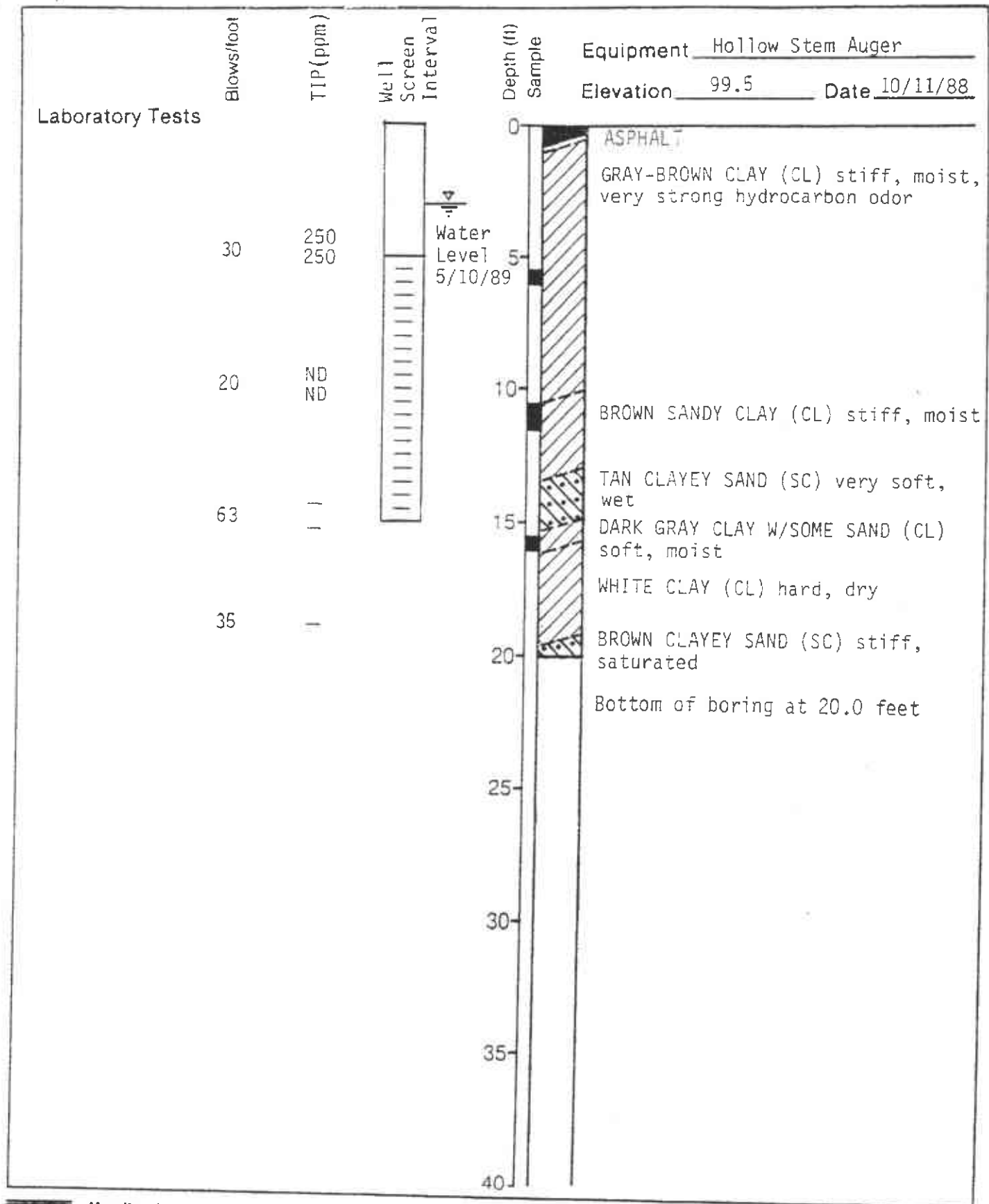
Elevation 100 Date 3/2/89



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

Log of Boring B-5
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE
9



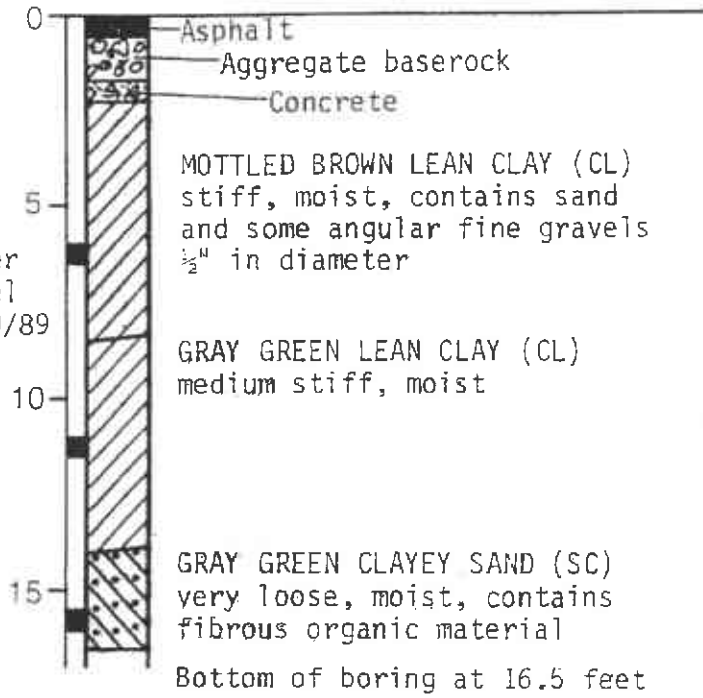
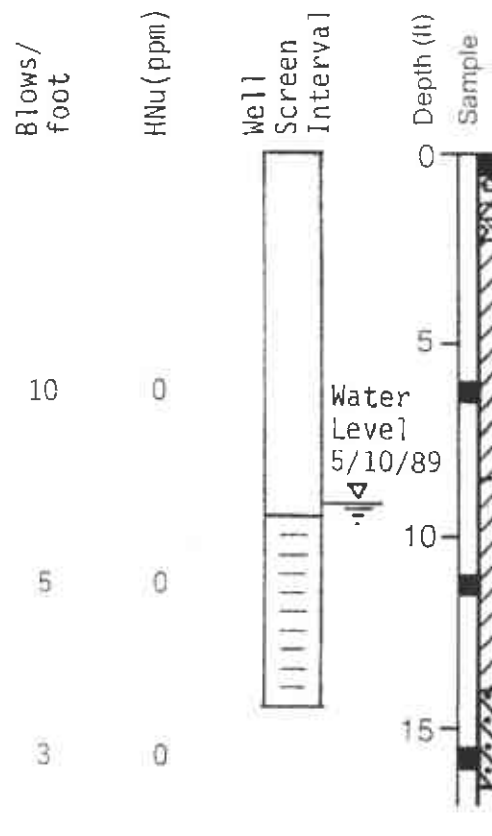
Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

Log of Monitoring Well MW-8E
 Former Texaco Service Station
 500 Grand Avenue
 Oakland, California

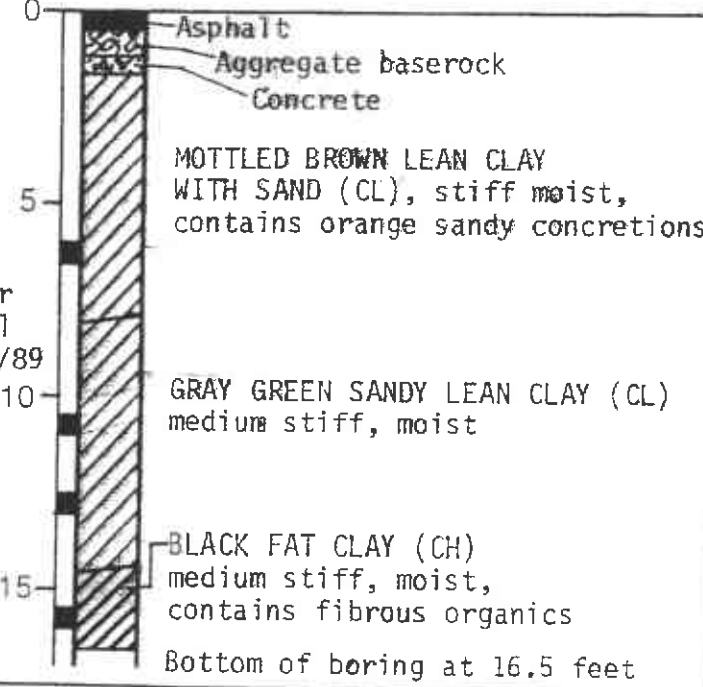
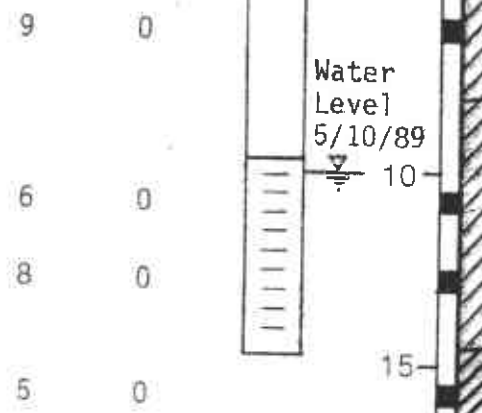
PLATE

10

LOG OF BORING MW-8F
 Equipment Hollow Stem Auger
 Elevation 98.1 Date 3/16/89



LOG OF BORING MW-8G
 Equipment Hollow Stem Auger
 Elevation 97.5 Date 3/16/89



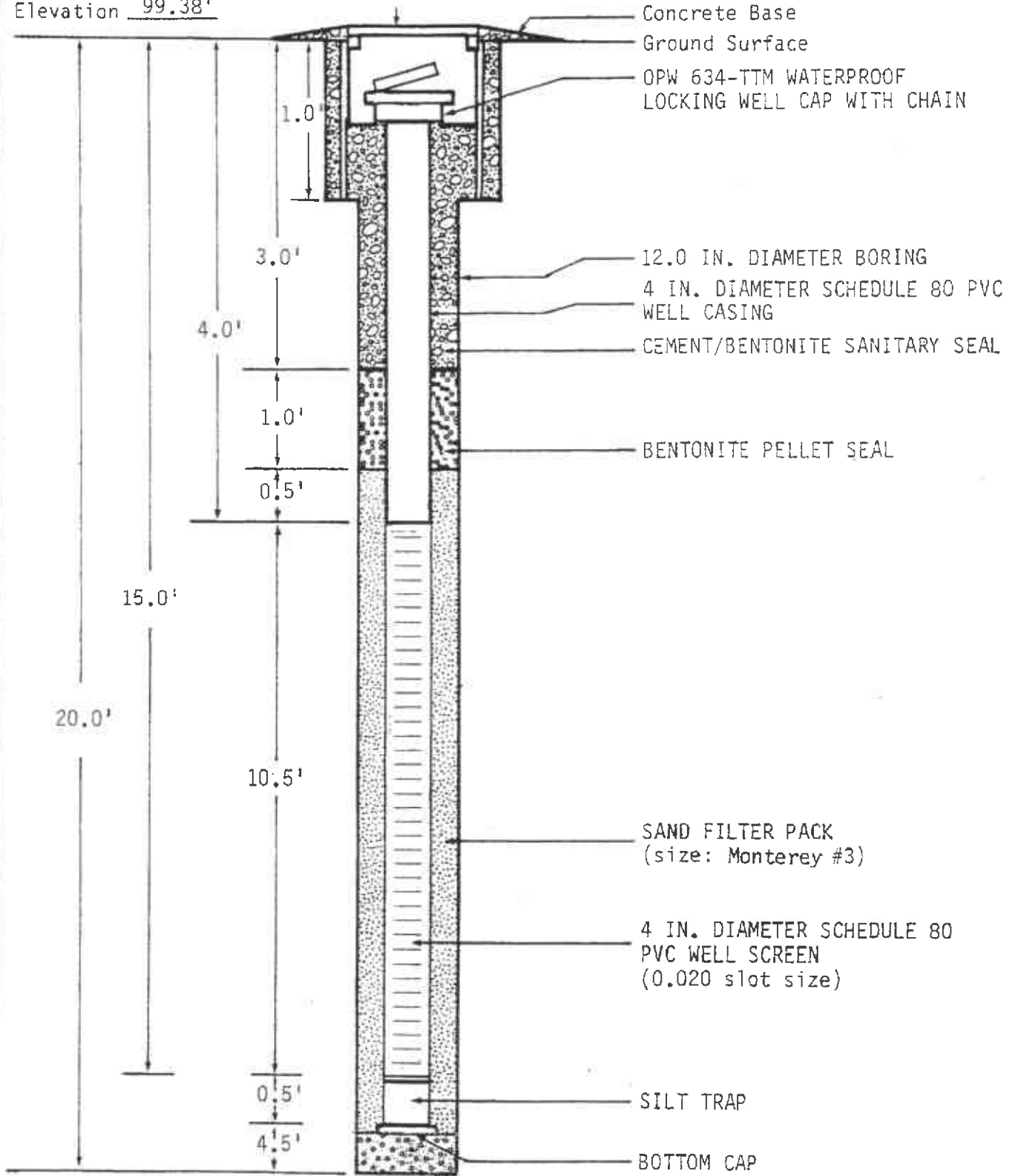
Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

Log of Boring MW-8F and MW-8G
 Former Texaco Service Station
 500 Grand Avenue
 Oakland, California

PLATE
11

Top of PVC Casing
Elevation 99.38'

12" EMCO WHEATON A-721 MANHOLE
WITH WATERPROOF COVER



Concrete Base
Ground Surface
OPW 634-TTM WATERPROOF
LOCKING WELL CAP WITH CHAIN

12.0 IN. DIAMETER BORING
4 IN. DIAMETER SCHEDULE 80
WELL CASING
CEMENT/BENTONITE SANITARY SEAL

BENTONITE PELLET SEAL

SAND FILTER PACK
(size: Monterey #3)

4 IN. DIAMETER SCHEDULE 80
PVC WELL SCREEN
(0.020 slot size)

SILT TRAP

BOTTOM CAP

NOT TO SCALE

HLA
Harding Lawson Associates
Engineers and Geoscientists

Well Construction Diagram MW-8E
Former Texaco Service Station
500 Grand Avenue
Oakland, California

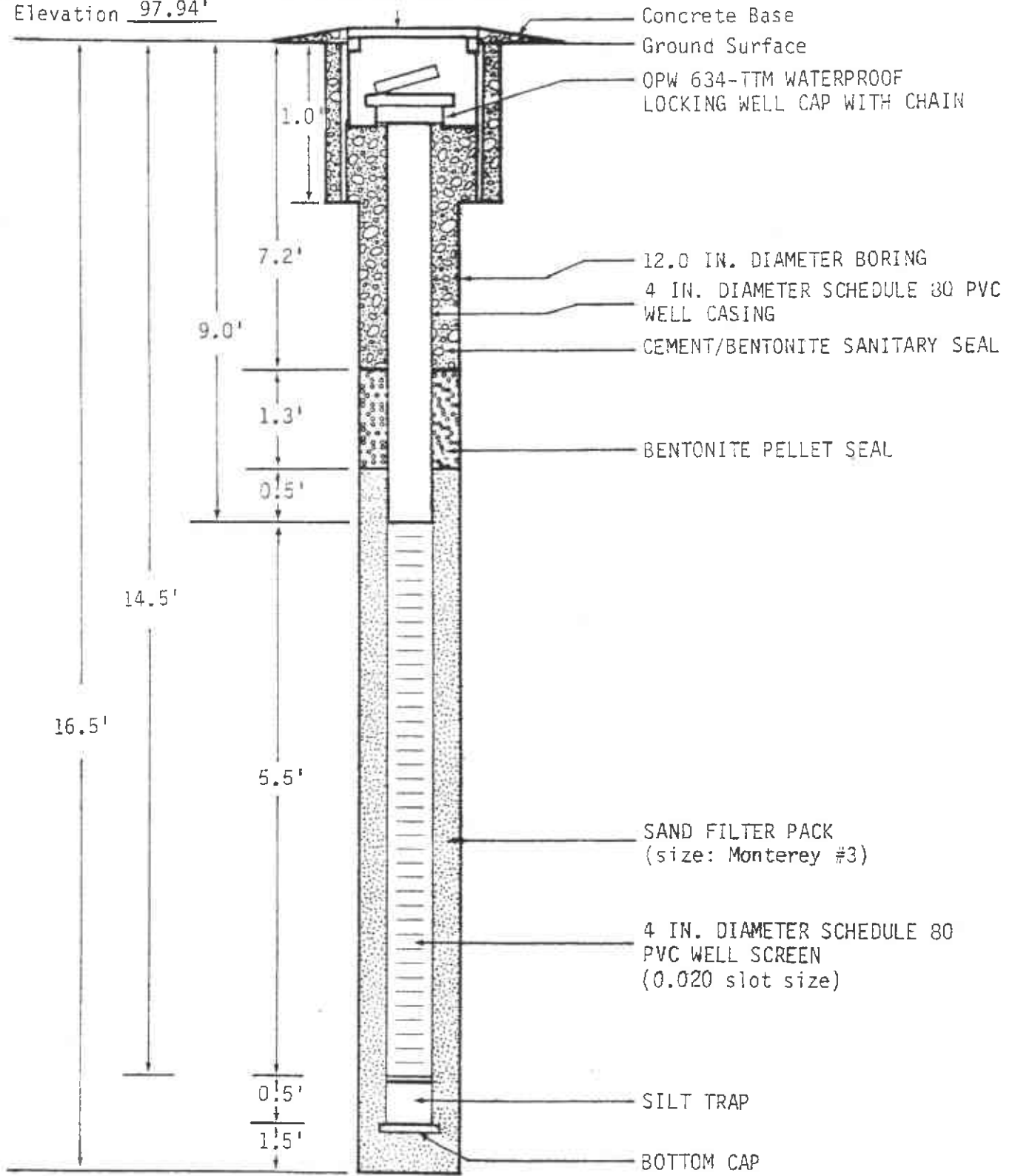
PLATE

13

| | | | | | |
|-------------|---------------------------|-----------------|---------------|---------|------|
| DRAWN YC | JOB NUMBER 2251,081.03 | APPROVED SJO | DATE 12/88 | REVISED | DATE |
|-------------|---------------------------|-----------------|---------------|---------|------|

Top of PVC Casing
Elevation 97.94'

12" EMCO WHEATON A-721 MANHOLE
WITH WATERPROOF COVER



NOT TO SCALE



Harding Lawson Associates
Engineers and Geoscientists

Well Construction Diagram - MW-8F
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE

14

DRAWN
YC

JOB NUMBER
2251,081.03

APPROVED
SJD

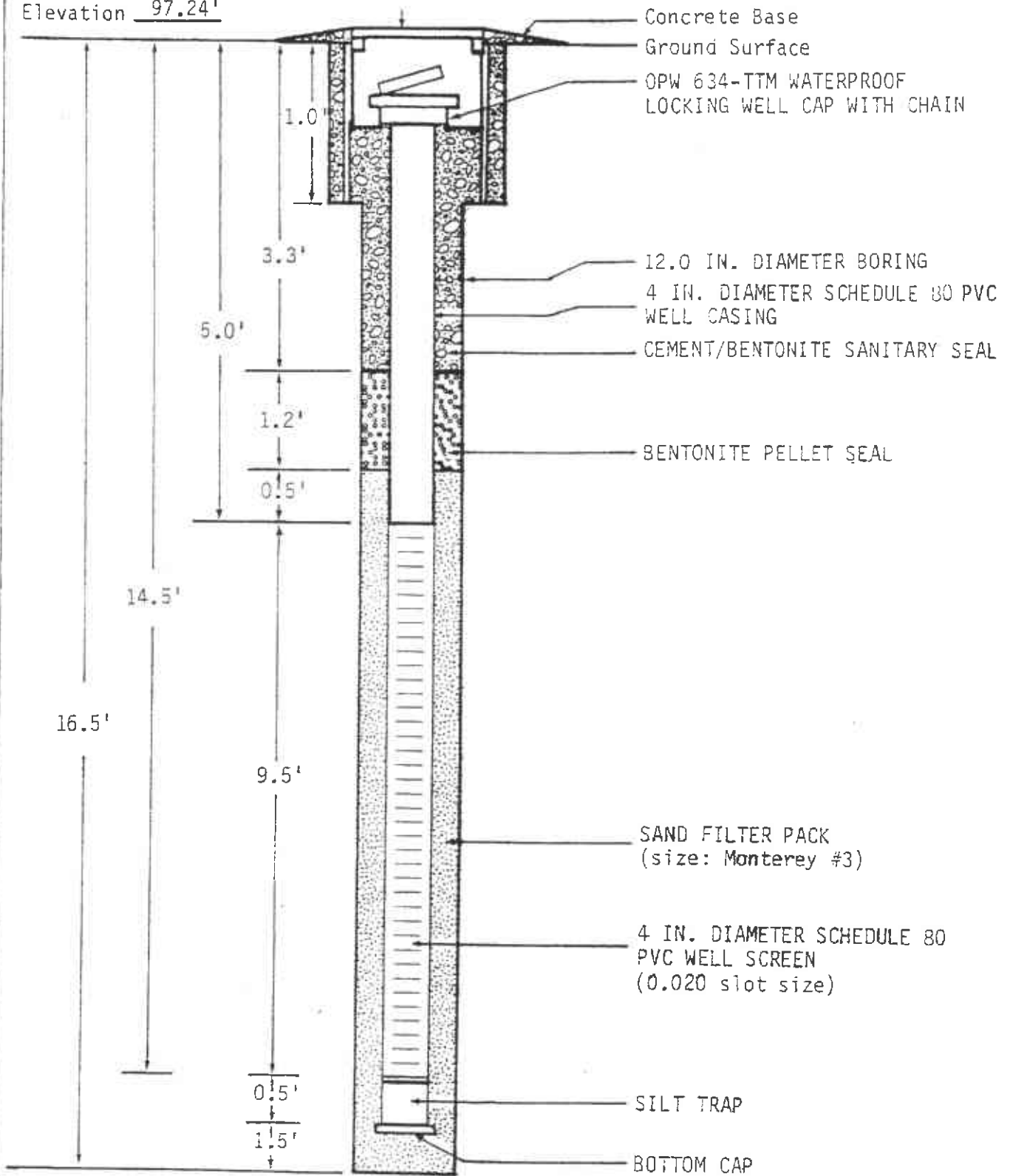
DATE
5/89

REVISED

DATE

Top of PVC Casing
Elevation 97.24'

12" EMCO WHEATON A-721 MANHOLE
WITH WATERPROOF COVER



NOT TO SCALE

HLA **Harding Lawson Associates**
Engineers and Geoscientists

Well Construction Diagram - MW-8G
Former Texaco Service Station
500 Grand Avenue
Oakland, California

PLATE

15

DRAWN
YC

JOB NUMBER
2251,081.03

APPROVED
SJO

DATE
5/89

REVISED

DATE

ATTACHMENT C

**HISTORICAL SENSITIVE RECEPTOR SURVEY DATA AND RECENT WELL
SURVEY DATA**

Attachment A to Environmental Testing Procedures

SENSITIVE RECEPTORS - SITE INVESTIGATION AND RISK ASSESSMENT

Location #: 62488000235
Address: 500 Grand Avenue
City/State: Oakland CA
County: Alameda

I Provide answers to the following questions to the extent reasonably known:

- A. Is there a public water supply well within 2500'? (Y/N) No
If Yes, distance (FT) _____
- B. Is there a private water supply well within 1000'? (Y/N) No
If Yes, distance (FT) _____
- C. Is there a subway within 1000'? (Y/N) No
If Yes, distance (FT) _____
- D. Is there a basement within 500'? (Y/N) Yes
If Yes, distance (FT) 250
- E. Is there a school within 1000'? (Y/N) No
If Yes, distance (FT) _____
- F. Is there a surface body of water within 500'? (Y/N) Yes
(i.e., lake, river, ocean) If Yes, distance (FT) 200

II Describe type of local water supply:

Public X
 - Suppliers' Name East Bay Mud
 - Suppliers' Source Mokelumne Aqueduc
 - Distance to Site 30 miles NE
 Private _____

III Aquifer Classification, if available:

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

IV Describe observation wells, if any:

Number 4
 Free Product (Y/N) Yes

Provide a site diagram or a local/topographic (USGS) map of the area.

V Report should consist of this fact sheet, the site or area map, and a cover letter.

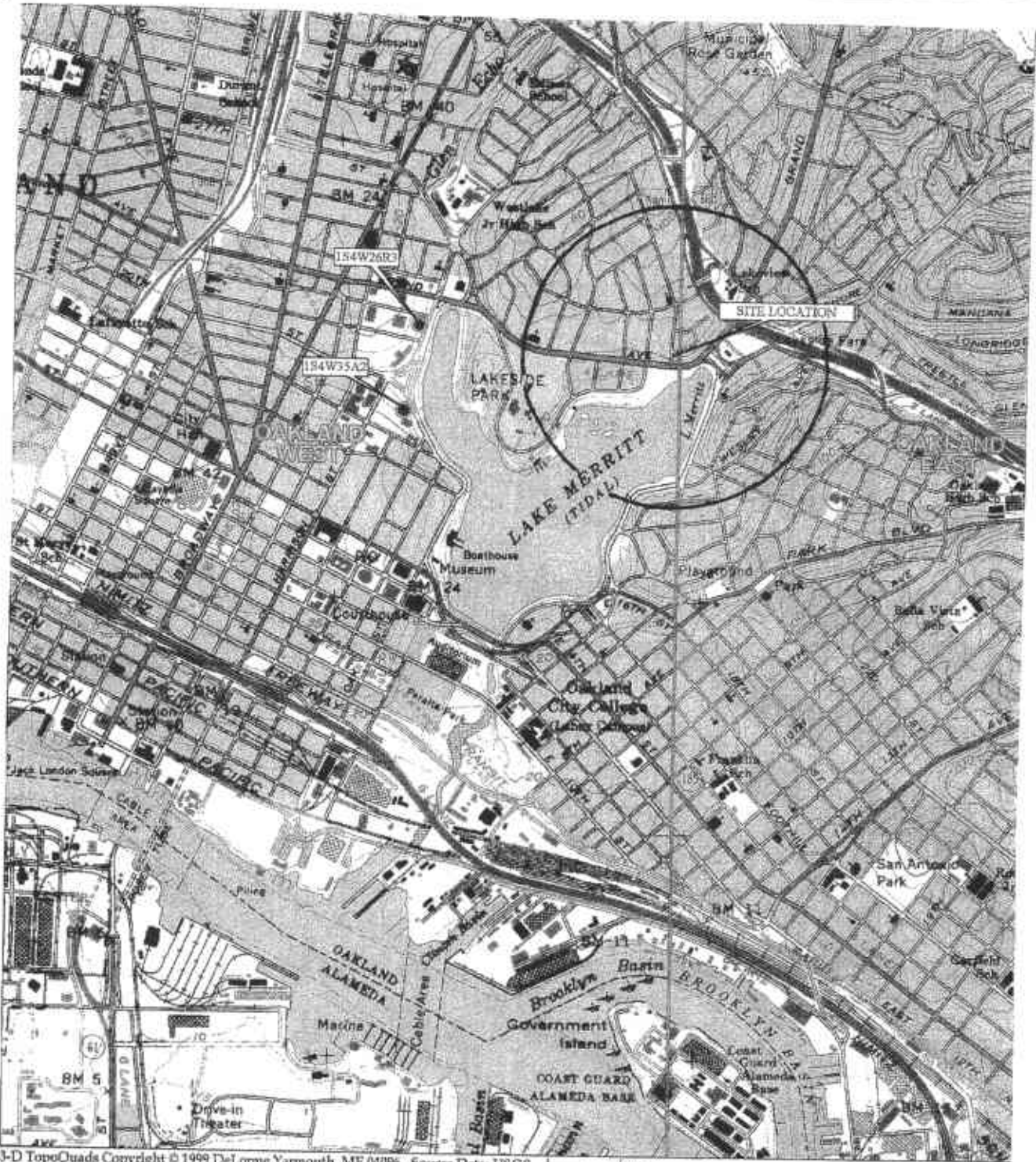
VI Signature of Preparer: [Signature] Date: 5/24/88

Table 1
 Well Survey
 Former Texaco Service Station
 500 Grand Avenue
 Oakland, California

| Township Range | Well Owner | Well Address | Well Use | Date Installed | Total Depth of Well | Casing Diameter | Depth to Water |
|-------------------|-----------------------|-------------------------------|-------------|-------------------|------------------------|--------------------|-------------------|
| 1S4W26R3 | Ahmanson Commercial | 2100 Harrison Street, Oakland | Irrigation | Mar-91 | 290 feet | 6 inches | 20 feet |
| 1S4W35A2 | Lakeside Corp. (Bech) | 244 Lakeside, Oakland | Irrigation | 1977 | 95 feet | 6 inches | 30 feet |

ATTACHMENT D

HISTORICAL SOIL ANALYTICAL DATA



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04896 Source Data: USGS

950 ft Scale: 1: 24,000 Detail: 13-1 Datum: WGS84



Scale, Feet

LEGEND

○ **1S4W26R3** Water Supply Well Location and Identification

KHM
ENVIRONMENTAL
MANAGEMENT
INC.

Well Survey Map
Wells Within 2,000 Feet of the Site
Former Texaco Service Station
500 Grand Avenue at Euclid Avenue
Oakland, California

| | | |
|-------------|----------------------|----------|
| DATE 2/8/01 | PROJECT C80-000500C1 | FIGURE 1 |
|-------------|----------------------|----------|

Table 2. Results of Ground-Water Analyses
(concentrations in micrograms per liter [$\mu\text{g}/\text{l}$])

| Well No. | Benzene | Ethyl-benzene | Toluene | Xylenes |
|----------|-------------|---------------|---------|---------|
| MW-8A | ND (0.5) | ND (2) | 1.5 | 6.6 |
| MW-8B | ND (0.5) | ND (2) | ND (1) | ND (1) |
| MW-8C | 5.3 | 2.6 | 3.5 | 13 |
| MW-8D | Not Sampled | | | |
| DWAL | 0.70 | 680 | 100 | 620 |

Table 3. Results of Soil Analyses
(concentrations in milligrams per kilograms [mg/kg])

| Sample ID | Benzene | Ethyl-benzene | Toluene | Xylenes | TPH |
|-----------|-----------|---------------|---------|---------|-----|
| MW-8D-1.3 | ND (0.05) | ND (0.1) | 0.4 | 0.5 | 10 |

ND = Nondetectable.
Detection limits are given in parentheses.

Laboratory results of chemical analyses on soil are presented in Table 2. Results of analyses on soil samples from B-1, B-3, B-4, and MW-8D indicate the presence of gasoline hydrocarbons in vadose zone soils between depths of 1 and 7 feet in two areas: near the underground gasoline storage tanks and in the vicinity of the southernmost pump island.

In the immediate vicinity of the underground tanks, concentrations of TPH as gasoline varied from 10 to 510 milligrams per kilogram (mg/kg) in vadose soil samples collected from B-1, B-4, and MW-8D. Downgradient of the pump islands, TPH concentrations in the vadose soil sample from B-3 was 520 mg/kg.

Table 2. Results of Chemical Tests on Soil Samples
(reported as mg/kg [ppm])

| Boring/ Well Number | Depth (feet) | (gasoline) | TPH Benzene | Toluene | Ethyl- benzene | Xylenes |
|---------------------------|-----------------|------------|----------------|---------|-------------------|---------|
| B-1 | 6.5 | 12 | <0.05 | <0.1 | <0.2 | <0.1 |
| B-3 | 4.0 | 520 | <1 | <2 | <4 | 5 |
| B-4 | 3.5 | 510 | <0.5 | 1 | 3.5 | 13 |
| B-5 | 5.5 | <10 | <0.05 | <0.1 | <0.2 | <0.1 |
| B-5 | 10.5 | <10 | <0.05 | <0.1 | <0.2 | <0.1 |
| B-5 | 16 | <10 | <0.05 | <0.1 | <0.2 | <0.1 |
| MW-8D | 1.3 | 10 | <0.05 | 0.40 | <0.20 | 0.50 |
| MW-8E | 5.5 | 750 | 0.82 | 6.5 | 5.5 | 26 |
| MW-8F | 11 | <10 | <0.5 | <0.1 | <0.2 | <0.1 |
| MW-8G | 6 | <10 | <0.5 | <0.1 | <0.2 | <0.1 |

Table 1. Results of Soil Sample Analyses
(concentrations in mg/kg [ppm])

| Boring/ Well Number | Sample Depth (feet) | Benzene | Toluene | Ethyl- benzene | Xylenes | TPH as Gasoline | TPH as Diesel | TPH Other** |
|---------------------------|---------------------------|---------|---------|-------------------|---------|--------------------|------------------|----------------|
| B-1 | 6.5 | ND | ND | ND | ND | 12 | NA | |
| B-3 | 4.0 | ND | ND | ND | 5 | 520 | NA | |
| B-4 | 3.5 | ND | 1 | 3.5 | 13 | 510 | NA | |
| B-5 | 5.5 | ND | ND | ND | ND | <10 | NA | |
| B-5 | 10.5 | ND | ND | ND | ND | ND | NA | |
| B-5 | 16.0 | ND | ND | ND | ND | ND | NA | |
| B-6 | 2.0 | ND | 0.08 | ND | ND | 1.0 | <100* | <100* |
| B-6 | 4.5 | ND | 0.09 | ND | ND | ND | <10 | <10 |
| B-7 | 3.0 | ND | 6.7 | 5.1 | 50 | 580 | <100* | <100* |
| B-8 | 2.0 | 0.05 | ND | ND | 0.34 | 3.4 | <10 | <10 |
| B-9 | 2.5 | 0.05 | 0.32 | 0.81 | 6.4 | 100 | 460 | <100* |
| B-8K | 1.5 | ND | ND | ND | ND | 2.1 | | ND |
| | 3.0 | ND | 0.05 | ND | ND | 6.6 | | ND |
| | 5.5 | ND | ND | 0.08 | 0.05 | 84 | | 20 |
| B-10 | 1.5 | 0.28 | ND | 0.20 | 0.18 | 8.4 | | ND |
| | 2.5 | 0.09 | ND | ND | ND | ND | | ND |
| | 5.5 | ND | ND | ND | ND | ND | | ND |
| | 8.5 | ND | ND | ND | ND | ND | | ND |
| B-11 | 1.5 | ND | ND | 5.4 | 1.6 | 2,900 | | 30 |
| | 2.5 | ND | ND | 0.31 | 0.12 | 62 | | 11 |
| | 5.5 | ND | ND | 0.06 | ND | 17 | | ND |
| | 8.5 | ND | ND | ND | ND | ND | | ND |
| B-12 | 1.0 | 0.22 | 0.11 | 0.18 | 0.42 | 13 | | ND |
| | 2.5 | ND | ND | 0.19 | 0.83 | 49 | | ND |
| | 4.5 | ND | ND | 1.27 | 0.67 | 1,200 | | 94 |
| | 6.0 | ND | 0.06 | ND | ND | ND | | ND |
| B-13 | 1.5 | ND | ND | ND | ND | ND | | ND |
| | 2.5 | ND | ND | 1.7 | 5.4 | 130 | ND | 1,000 |
| | 3.5 | ND | 0.06 | 0.06 | 0.30 | 26 | ND | 250 |
| B-14 | 1.5 | ND | ND | ND | ND | 4.8 | ND | 85 |
| | 3.5 | ND | ND | ND | ND | 2.3 | ND | 62 |
| MW-8D | 1.3 | ND | 0.40 | ND | 0.50 | 10 | NA | |
| MW-8E | 5.5 | 0.82 | 6.5 | 5.5 | 26 | 750 | NA | |
| MW-8F | 11.0 | ND | ND | ND | ND | ND | NA | |
| MW-8G | 6.0 | ND | ND | ND | ND | ND | NA | |
| MW-8H | 1.5 | ND | 0.07 | ND | ND | ND | NA | |
| | 3.0 | ND | 0.24 | ND | ND | 2.6 | | ND |
| | 5.5 | ND | ND | 0.30 | 0.83 | 550 | | ND |
| MW-8I | 10.5 | ND | ND | ND | ND | ND | | 66 |
| | 1.5 | 0.10 | ND | ND | ND | 3.0 | | ND |
| | 3.5 | 0.06 | ND | ND | 0.02 | ND | | ND |
| | 5.5 | ND | ND | 2.7 | 9.2 | 280 | | ND |
| MW-8J | 10.5 | ND | ND | ND | ND | ND | | ND |
| | 1.5 | 0.18 | 0.09 | 0.06 | 0.05 | 24 | | ND |
| | 3.0 | 0.08 | 0.14 | 0.04 | ND | 13 | | 33 |
| | 5.5 | ND | ND | 25 | 9.2 | 2,100 | | 83 |
| | 10.5 | ND | 0.02 | ND | ND | 8 | | ND |

ND = Not detected

NA = Not analyzed

* Laboratory increased reporting limits because of matrix interference.

** "Heavy" petroleum hydrocarbons such as waste oil, mineral spirits, jet fuel, or fuel oil.

Table 1. Results of Analyses of Excavation Water
(concentrations in parts per billion [ppb])

| <u>Sample</u> | <u>Depth (feet)</u> | <u>Benzene</u> | <u>Toluene</u> | <u>Ethyl-benzene</u> | <u>Xylenes</u> | <u>TPH as Gasoline</u> | <u>TPH as Diesel</u> | <u>TPH as Motor Oil</u> | <u>Total oil and Grease</u> | <u>Chlorinated Hydrocarbons</u> |
|---------------|------------------------------|----------------|----------------|----------------------|----------------|------------------------|----------------------|-------------------------|-----------------------------|---------------------------------|
| EP-01 | west trench, 280 east end | 300 | 300 | 120 | 860 | 5,200 | 31,000 | 100,000 | NA | NA |
| WP-01 | west trench, 320 west end | 73 | 73 | 95 | 48 | 3,900 | 13,000 | 17,000 | NA | NA |

Table 2. Results of Soil Analyses from Pipe Excavation
(concentrations in parts per million [ppm])

| <u>Sample</u> | <u>Depth (feet)</u> | <u>Benzene</u> | <u>Toluene</u> | <u>Ethyl-benzene</u> | <u>Xylenes</u> | <u>TPH as Gasoline</u> | <u>TPH as Diesel</u> | <u>TPH as Motor Oil</u> | <u>Total oil and Grease</u> | <u>Chlorinated Hydrocarbons</u> |
|---------------|---------------------|----------------|----------------|----------------------|----------------|------------------------|----------------------|-------------------------|-----------------------------|---------------------------------|
| PT-NS-7.5 | 2.5 | 0.020 | ND | 0.055 | 0.13 | 22 | 28 | 330 | 110 | ND on all |
| PT-B-7.5 | 4.5 | ND | ND | ND | ND | 5.7 | 8.1 | 93 | 150 | ND on all |
| PT-SS-7.5 | 2.5 | 0.071 | 0.071 | 0.30 | 0.63 | 100 | 17 | 160 | 630 | ND on all |
| PT-E-1.5 | 1.5 | <0.005 | <0.005 | <0.005 | <0.005 | 1.1 | 110 | NA | 780 | NA |
| PT-W-1.5 | 1.5 | <0.005 | 0.014 | <0.005 | 0.024 | 3.8 | 190 | NA | 370 | NA |

NA = Compounds not analyzed

ND = Concentrations were below the detectable limit

Table 1. Results of Chemical Analyses on Soil Samples
Former Service Station
500 Grand Avenue
Oakland, California

| | Sample I.D. ¹ | Date | Benzene | Toluene | Ethyl benzene | Xylenes | TPH as gasoline | Other |
|--|--------------------------|----------|---------|---------|---------------|---------|-----------------|--------|
| Results Presented in mg/kg (ppm) | | | | | | | | |
| Excavation | SS1/10-B | 04/14/92 | <0.005 | 0.038 | 0.016 | 0.12 | 5.3 | -- |
| | SS2/10-B | 04/14/92 | 0.049 | 0.38 | 0.15 | 1.4 | 89 | -- |
| | SS3/ 5-W | 04/14/92 | <0.005 | <0.005 | <0.005 | 0.011 | <1.0 | -- |
| | SS4/10-B | 04/14/92 | 0.14 | 0.21 | 0.17 | 1.1 | 130 | -- |
| | SS5/10-B | 04/14/92 | 0.20 | 0.028 | 0.040 | 0.15 | 36 | -- |
| | SS6/10-B | 04/14/92 | 0.0057 | <0.005 | <0.005 | 0.017 | 2.3 | -- |
| | SS7/ 5-W | 04/14/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 | -- |
| | SS8/ 5-W | 04/14/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 | -- |
| | SS9/ 5-W | 04/14/92 | 0.0069 | <0.005 | <0.005 | <0.005 | <1.0 | -- |
| Pump Islands and Fuel Line | PI-1/5 | 04/15/92 | 11 | 60 | 32 | 180 | 2,100 | 190* |
| | PI-2/5 | 04/15/92 | 0.019 | 0.013 | 0.035 | 0.077 | 7.8 | 30* |
| | PI-2A/6 | 04/15/92 | 1.3 | 1.1 | 2.0 | 11 | 810 | 6,900* |
| | Fuel Line/5 | 04/15/92 | 0.92 | 2.9 | 3.6 | 21 | 390 | 36* |
| Stockpile | Pea gravel-1A | 04/14/92 | 0.031 | 0.054 | 0.023 | 0.12 | 5.4 | -- |
| | Pea gravel-1 | 04/14/92 | 0.012 | 0.018 | <0.005 | 0.041 | 6.8 | -- |
| | Pea gravel-2 | 04/14/92 | <0.005 | <0.005 | <0.005 | <0.005 | 1.2 | -- |
| | Pea gravel-3 | 04/14/92 | 0.83 | 0.56 | 1.1 | 0.78 | 160 | -- |
| | Pea gravel-4 | 04/14/92 | <0.005 | <0.005 | <0.005 | 0.010 | <1.0 | -- |
| | Pea gravel-5 | 04/14/92 | <0.005 | <0.005 | <0.005 | <0.005 | 2.9 | -- |
| | Pea gravel-6 | 04/14/92 | <0.005 | <0.005 | <0.005 | 0.0054 | 2.0 | -- |
| | Pea gravel-7 | 04/14/92 | <0.005 | 0.011 | <0.005 | 0.024 | 6.2 | -- |
| | Pea gravel-8 | 04/14/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 | -- |
| | Pea gravel-9 | 04/14/92 | <0.005 | <0.005 | <0.005 | <0.005 | 2.4 | -- |
| TCLP Soil Extract, Results Presented in µg/l (ppb) | | | | | | | | |
| | Pea gravel-3 | 04/14/92 | 8.3 | <6.0 | <6.0 | 11 | 710 | 0.18** |

¹ Sample I.D. contains the following components: SS1 = sample name
10 = depth of sample in feet
B = bottom of excavation
W = sidewall of excavation

* Total oil and grease
** STLC lead

Table 6. Results of Analyses on Soil Samples
from Site Excavation
500 Grand Avenue
Oakland, California

Results Presented in mg/kg (ppm)

| Sample I.D.* | Date | Benzene | Toluene | Ethyl benzene | Xylenes | TPH as Gasoline |
|-----------------|----------|---------|---------|------------------|---------|--------------------|
| BE-1-8.0 | 05/05/92 | 0.043 | <0.005 | 0.058 | <0.005 | 1.1 |
| BE-2-8.0 | 05/05/92 | 0.011 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-3-4.0 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-4-4.5 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-5-7.5 | 05/05/92 | 0.018 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-6-7.5 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-7-8.0 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-8-8.0 | 05/05/92 | 0.028 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-9-9.0 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| BE-10-9.0 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| WS-1-3.0 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| WS-2-5.0 | 05/05/92 | 1.1 | 3.1 | 2.2 | 9.7 | 72 |
| WS-3-7.5 | 05/05/92 | <0.005 | <0.005 | <0.005 | <0.005 | <1.0 |
| WS-4-5.0 | 05/05/92 | 22 | 28 | 30 | 100 | 1,000 |
| WS-5-5.0 | 05/05/92 | 11 | 23 | 9.9 | 42 | 480 |

* Sample I.D. contains the following components: BE-1 = Sample name
8.0 = Sample depth (in feet)
BE = Bottom of excavation
WS = Wall of excavation

TABLE 1. SOIL ANALYTICAL RESULTS - EXCAVATION

Former Texaco Service Station
500 Grand Avenue
Oakland, California

| Sample I.D. | Type | TPH-g (mg/kg) | Benzene (mg/kg) | Toluene (mg/kg) | Ethyl-benzene (mg/kg) | Total Xylenes (mg/kg) |
|-------------|------------|---------------|-----------------|-----------------|-----------------------|-----------------------|
| SW-1 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| SW-2 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| SW-3 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| SW-4 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| SW-5 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| SW-6 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| SW-7 | Sidewall | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-1 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-2 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-3 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-4 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-5 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-6 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-7 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-8 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-9 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |
| B-10 | Pit Bottom | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) |

NOTES:

ND Not detected. Detection limits in parentheses
mg/kg Milligrams per kilogram

TABLE 2. SOIL ANALYTICAL RESULTS - STOCKPILE (Preliminary Composites)

Former Texaco Service Station
500 Grand Avenue
Oakland, California

| Sample Numbers | Sample I.D. | TPH (mg/kg) | TPH-gas (mg/kg) | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Xylenes (mg/kg) | Soluble Lead (mg/L) |
|----------------------|--------------|-------------|-----------------|-----------------|-----------------|----------------------|-----------------|---------------------|
| 1A 1B 1C 1D | Composite #1 | 20 | 3.5 | ND(0.005) | ND(0.005) | 0.006 | 0.040 | 0.3 |
| 2A 2B 2C 2D | Composite #2 | 50 | ND(1) | ND(0.005) | ND(0.005) | ND(0.005) | ND(0.005) | 0.4 |
| 3A 3B 3C 3D | Composite #3 | 60 | 5.4 | ND(0.005) | ND(0.005) | ND(0.005) | 0.011 | 0.3 |
| 4A 4B 4C 4D | Composite #4 | 70 | 3.6 | ND(0.005) | ND(0.005) | ND(0.005) | 0.030 | 0.3 |
| 5A 5B 5C 5D | Composite #5 | 30 | 6.3 | 0.010 | ND(0.005) | ND(0.005) | 0.10 | 0.4 |

TPH Total petroleum hydrocarbons
ND Not detected. Detection limits in parentheses

TABLE 3. SOIL ANALYTICAL RESULTS - STOCKPILE
Final Composite

Former Texaco Service Station
500 Grand Avenue
Oakland, California

| Sample I.D. | Priority Pollutant Volatile Organics (mg/kg) | Semi-Volatile Priority Pollutants (mg/kg) | Flash Point | pH | Cyanide (mg/kg) | Sulfide (mg/kg) |
|-----------------|--|---|-------------|-----|-----------------|-----------------|
| #6, #7, #8, #10 | ND ¹ | ND ² | >200°F | 6.0 | ND ³ | ND ⁴ |

NOTES:

- * All the sample IDs refer to single composite made from composite sample 1, 2, 3, 4, and 5
- ND¹ Compounds not detected at detection limits ranging from 0.1 to 0.005 mg/kg
- ND² Compounds not detected at detection limits ranging from 1 to 0.05 mg/kg
- ND³ Compound not detected at detection limit of 0.5 mg/kg
- ND⁴ Compound not detected at detection limit of 0.1 mg/kg

TABLE 4. SOIL ANALYTICAL RESULTS - STOCKPILE
 Final Composite Metals
 Composite Sample #9 and #10*

Former Texaco Service Station
 500 Grand Avenue
 Oakland, California

| Title 22 Metals | Units | Results |
|-----------------|-------|---------|
| Antimony | mg/kg | ND(0.5) |
| Arsenic | mg/kg | 2.6 |
| Barium | mg/kg | 110 |
| Beryllium | mg/kg | 0.7 |
| Cadmium | mg/kg | ND(0.5) |
| Chromium | mg/kg | 48 |
| Chromium (H) | mg/kg | ND(50) |
| Cobalt | mg/kg | 17 |
| Copper | mg/kg | 27 |
| Lead | mg/kg | 4.4 |
| Lead (O) | mg/kg | ND(0.1) |
| Mercury | mg/kg | 0.10 |
| Nickel | mg/kg | 65 |
| Molybdenum | mg/kg | ND(3) |
| Selenium | mg/kg | ND(0.5) |
| Silver | mg/kg | 1.0 |
| Thallium | mg/kg | ND(3) |
| Vanadium | mg/kg | 48 |
| Zinc | mg/kg | 61 |

* Composite samples #9 and #10 are both composited from composite sample 1, 2, 3, 4, and 5
 (H) Hexavalent
 (O) Organic
 ND Not detected. Detection limits in parentheses

ATTACHMENT E

HISTORICAL GROUNDWATER ANALYTICAL DATA

Table 2. Results of Ground-Water Analyses
(concentrations in micrograms per liter [$\mu\text{g}/\text{L}$])

| Well No. | Benzene | Ethyl-benzene | Toluene | Xylenes |
|----------|-------------|---------------|---------|---------|
| MW-8A | ND (0.5) | ND (2) | 1.5 | 6.6 |
| MW-8B | ND (0.5) | ND (2) | ND (1) | ND (1) |
| MW-8C | 5.3 | 2.6 | 3.5 | 13 |
| MW-8D | Not Sampled | | | |
| DWAL | 0.70 | 680 | 100 | 620 |

Table 3. Results of Soil Analyses
(concentrations in milligrams per kilograms [mg/kg])

| Sample ID | Benzene | Ethyl-benzene | Toluene | Xylenes | TPH |
|-----------|-----------|---------------|---------|---------|-----|
| MW-8D-1.3 | ND (0.05) | ND (0.1) | 0.4 | 0.5 | 10 |

ND = Nondetectable.
Detection limits are given in parentheses.

C. Water Quality Results

Ground-water samples collected from each well after development and purging were analyzed for BTEX (EPA Test Method 602). Laboratory results are presented in Appendix D.

Ground-water samples were collected using the procedures described in Section VI. Results of chemical analyses, summarized in Table 3, indicate that on-site wells MW-8A and MW-8C, and off-site wells MW-8F and MW-8G all had water with BTEX concentrations below analytical detection limits. Only water from MW-8E, an on-site well adjacent to the southernmost pump island, and MW-8B, adjacent to the northern pump island, had detectable BTEX concentrations.

Table 3. Results of Chemical Tests on Ground-water Samples
(reported as ug/L [ppb])

| <u>Monitoring Well</u> | <u>Date Sampled</u> | <u>Benzene</u> | <u>Toluene</u> | <u>Ethyl-benzene</u> | <u>Xylenes</u> |
|------------------------|---------------------|----------------|----------------|----------------------|----------------|
| MW-8A | 10/28/88 | <0.5 | <1 | <2 | <1 |
| MW-8B | 10/21/88 | <0.5 | <1 | <2 | 3.1 |
| MW-8C | 10/21/88 | <0.5 | <1 | <2 | <1 |
| MW-8E | 10/25/88 | 1,400 | 510 | 2.9 | 420 |
| MW-8F | 04/14/89 | <0.5 | <1 | <2 | <1 |
| MW-8G | 04/14/89 | <0.5 | <1 | <2 | <1 |

Table 1. Results of Groundwater Analyses
Concentrations in $\mu\text{g}/\text{l}$ (ppb)

| Well | Depth (feet) | Date Sampled | Benzene | Toluene | Ethyl- benzene | Xylenes | TPH as Gasoline | TPH as Diesel |
|-------|-----------------|-----------------|---------|---------|-------------------|---------|--------------------|------------------|
| MW-8A | 32 | 06/14/88 | <0.5* | 1.5 | <2 | 6.6 | | |
| | | 10/28/88 | <0.5 | <1 | <2 | <1 | | |
| | | 09/28/89 | <0.5 | <0.5 | <0.5 | <3 | <50 | |
| | | 11/29/89 | <0.5 | 1.0 | <0.5 | <0.5 | <50 | 1,200 |
| | | 01/24/90 | <0.5 | <0.5 | <0.5 | <0.5 | <100 | 2,800 |
| MW-8B | 20 | 06/14/88 | <0.5 | <1 | <2 | <1 | | |
| | | 10/21/88 | <0.5 | <1 | <2 | 3.1 | | |
| | | 09/28/89 | <0.5 | <0.5 | <0.5 | <3 | <50 | |
| | | 11/29/89 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| | | 01/24/90 | <0.5 | <0.5 | <0.5 | <0.5 | <100 | 350 |
| MW-8C | 24.5 | 06/14/88 | 5.3 | 3.5 | 2.6 | 13.0 | | |
| | | 10/21/88 | <0.5 | <1 | <2 | <1 | | |
| | | 09/28/89 | <0.5 | <0.5 | <0.5 | <3.0 | <50 | |
| | | 11/29/89 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| | | 01/24/90 | 0.9 | <0.5 | <0.5 | <0.5 | <100 | 480 |
| MW-8E | 20 | 10/25/88 | 1,400 | 510 | 2.9 | 420 | | |
| | | 09/28/89 | 5,600 | 3,100 | <500 | <3,000 | 22,000 | |
| | | 11/29/89 | 4,900 | 2,600 | <250 | 1,490 | 15,000 | 6,800 |
| | | 01/24/90 | 10,100 | 3,340 | 540 | 1,790 | 36,000 | 4,900 |
| MW-8F | 16.5 | 04/14/89 | <0.5 | <1 | <2 | <1 | | |
| | | 09/28/89 | <0.5 | <0.5 | <0.5 | <3 | <50 | |
| | | 11/29/89 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| | | 01/24/90 | <0.5 | <0.5 | <0.5 | <0.5 | <100 | <300 |
| MW-8G | 16.5 | 04/14/89 | <0.5 | <1 | <2 | <1 | | |
| | | 09/28/89 | <0.5 | <0.5 | <0.5 | <3 | <50 | |
| | | 11/29/89 | <0.5 | <0.5 | <0.5 | <0.5 | <50 | <50 |
| | | 01/24/90 | <0.5 | <0.5 | <0.5 | <0.5 | <100 | 650 |
| MW-8H | 16.5 | 01/24/90 | 14.8 | 14.8 | 10.8 | 38.8 | 460 | <300 |
| MW-8I | 16.5 | 01/24/90 | 116 | 2.9 | 13 | 30.5 | 580 | 440 |
| MW-8J | 16.5 | 01/24/90 | 2.7 | <0.5 | 1 | 2.6 | <100 | <300 |
| OB-3 | 11.5 | 11/06/89 | 420 | 8 | 6 | 64 | 4,000 | |
| OB-4 | 10.0 | 11/06/89 | 500 | 11 | 10 | 24 | 4,000 | |
| DWAL | | | 1.0 | 680 | 100 | 1,750 | | |

DWAL = Drinking water action levels, State of California Department of Health Services (April, 1989).

* <0.5 indicates that concentrations are below the reporting limit of 0.5 $\mu\text{g}/\text{l}$.

WELL CONCENTRATIONS
Former Texaco Service Station
500 Grand Avenue
Oakland, CA

| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8A | NA | Well abandoned | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-8B | NA | Well abandoned | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-8C | NA | Well abandoned | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-8D | NA | Well abandoned | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-8E | NA | Well abandoned | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| MW-8F | 01/23/1992 | <50 | 1,300 | 4.0 | 1.3 | <0.5 | 1.9 | NA | NA | 97.94 | 10.24 | 87.70 | NA | NA |
| MW-8F | 02/28/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 97.94 | 9.93 | 88.01 | NA | NA |
| MW-8F | 03/26/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 97.94 | 8.78 | 89.16 | NA | NA |
| MW-8F | 04/30/1992 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.94 | 9.36 | 88.58 | NA | NA |
| MW-8F | 09/28/1992 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.94 | 11.83 | 86.11 | NA | NA |
| MW-8F | 11/19/1992 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.94 | 11.22 | 86.72 | NA | NA |
| MW-8F | 02/12/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.94 | 9.66 | 88.28 | NA | NA |
| MW-8F | 05/06/1993 | <50 | <100 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.94 | 8.83 | 89.11 | NA | NA |
| MW-8F | 08/16/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 10.16 | 3.88 | NA | NA |
| MW-8F | 10/12/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 10.60 | 3.44 | NA | NA |
| MW-8F | 02/03/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 9.29 | 4.75 | NA | NA |
| MW-8F | 05/31/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 9.34 | 4.70 | NA | NA |
| MW-8F | 08/25/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 10.14 | 3.90 | NA | NA |
| MW-8F | 11/02/1994 | <50 | 520 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 10.42 | 3.62 | NA | NA |
| MW-8F | 01/31/1995 | <50 | 290 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 7.47 | 6.57 | NA | NA |
| MW-8F | 05/18/1995 | <50 | 54 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 8.00 | 6.04 | NA | NA |
| MW-8F | 08/29/1995 | <50 | 83 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 14.04 | 8.08 | 5.96 | NA | NA |

WELL CONCENTRATIONS
Former Texaco Service Station
500 Grand Avenue
Oakland, CA

| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|-------------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8F | 11/02/1995 | <50 | 51 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 14.04 | 8.70 | 5.34 | NA | NA |
| MW-8F | 02/05/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 7.16 | 6.88 | NA | NA |
| MW-8F | 04/30/1996 | <50 | 62 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 7.25 | 6.79 | NA | NA |
| MW-8F | 08/28/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 8.72 | 5.32 | NA | NA |
| MW-8F | 12/05/1996 | 210 | 110 | 17 | 17 | 11 | 46 | <30 | NA | 14.04 | 8.16 | 5.88 | NA | NA |
| MW-8F | 02/21/1997 | <50 | 85 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.04 | 5.53 | 8.51 | NA | NA |
| MW-8F | 05/02/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 14.04 | 7.85 | 6.19 | NA | NA |
| MW-8F | 07/30/1997 | <50 | 93 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.04 | 8.87 | 5.17 | NA | NA |
| MW-8F | 11/05/1997 | <50 | 140 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.04 | 9.16 | 4.88 | NA | NA |
| MW-8F | 01/21/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.04 | 8.56 | 5.48 | NA | NA |
| MW-8F | 06/03/1998 | <50 | 730 | <0.5 | <0.5 | <0.5 | <0.5 | 2.9 | NA | 14.04 | 8.30 | 5.74 | NA | NA |
| MW-8F | 08/04/1998 | <50 | 210 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 14.04 | 10.67 | 3.37 | NA | NA |
| MW-8F | 11/05/1998 | <50 | 210 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 14.04 | 8.72 | 5.32 | NA | NA |
| MW-8F | 02/16/1999 | <50.0 | 230 | <0.500 | <0.500 | <0.500 | <0.500 | <2.00 | NA | 14.04 | 8.78 | 5.26 | NA | NA |
| MW-8F | 06/04/1999 | <50 | 120 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 14.04 | 8.24 | 5.80 | NA | NA |
| MW-8F | 08/31/1999 | <50.0 | 176 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 14.04 | 8.87 | 5.17 | NA | 1.7/1.4 |
| MW-8F | 11/03/1999 | <50.0 | 130 | <0.500 | <0.500 | <0.500 | <0.500 | <5.00 | <2.00 | 14.04 | 9.40 | 4.64 | NA | 4.6/2.0 |
| MW-8F | 02/29/2000 | <50.0 | 59 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 14.04 | 8.00 | 6.04 | NA | 6.0/1.4 |
| MW-8F | 04/24/2000 | <50.0 | 161 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 14.04 | 7.05 | 6.99 | NA | 1.1/2.0 |
| MW-8F | 07/25/2000 | <50.0 | 123 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 14.04 | 8.66 | 5.38 | NA | 0.4/1.2 |
| MW-8F | 11/06/2000 | NA | 77.3a | NA | NA | NA | NA | NA | NA | 14.04 | 9.37 | 4.67 | NA | 0.7/1.3 |
| MW-8G** | 01/23/1992 | <50 | 980 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.24 | 11.30 | 85.94 | NA | NA |
| MW-8G | 02/28/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 97.24 | 10.83 | 86.41 | NA | NA |
| MW-8G | 03/26/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 97.24 | 9.20 | 88.04 | NA | NA |
| MW-8G | 04/30/1992 | <50 | <50 | 1.7 | <0.5 | <0.5 | <0.5 | NA | NA | 97.24 | 9.00 | 88.24 | NA | NA |
| MW-8G | 09/28/1992 | Well dry | NA | NA | NA | NA | NA | NA | NA | 97.24 | 13.32 | 83.92 | NA | NA |
| MW-8G | 11/19/1992 | Well inaccessible | NA | NA | NA | NA | NA | NA | NA | 97.24 | NA | NA | NA | NA |

WELL CONCENTRATIONS
Former Texaco Service Station
500 Grand Avenue
Oakland, CA

| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|-------------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8G | 02/12/1993 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 97.24 | NA | NA | NA | NA |
| MW-8G | 05/06/1993 | <50 | 60 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.24 | 11.18 | 86.06 | NA | NA |
| MW-8G | 08/16/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 9.51 | 3.81 | NA | NA |
| MW-8G | 10/12/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 10.93 | 2.39 | NA | NA |
| MW-8G | 02/03/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 9.69 | 3.63 | NA | NA |
| MW-8G | 05/31/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 9.24 | 4.08 | NA | NA |
| MW-8G | 08/25/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 9.74 | 3.58 | NA | NA |
| MW-8G | 11/02/1994 | <50 | 530 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 10.08 | 3.24 | NA | NA |
| MW-8G | 01/31/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 5.75 | 7.57 | NA | NA |
| MW-8G | 05/18/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 6.60 | 6.72 | NA | NA |
| MW-8G | 08/29/1995 | <50 | 120 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 13.32 | 8.14 | 5.18 | NA | NA |
| MW-8G | 11/02/1995 | <50 | 140 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 13.32 | 9.16 | 4.16 | NA | NA |
| MW-8G | 02/05/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 7.18 | 6.14 | NA | NA |
| MW-8G | 04/30/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 7.00 | 6.32 | NA | NA |
| MW-8G | 08/28/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 8.94 | 4.38 | NA | NA |
| MW-8G | 12/05/1996 | 190 | 57 | 16 | 16 | 9.0 | 39 | <30 | NA | 13.32 | 9.22 | 4.10 | NA | NA |
| MW-8G | 02/21/1997 | <50 | 54 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.32 | 6.11 | 7.21 | NA | NA |
| MW-8G | 05/02/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.32 | 7.54 | 5.78 | NA | NA |
| MW-8G | 07/30/1997 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 13.32 | NA | NA | NA | NA |
| MW-8G | 11/05/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.32 | 9.65 | 3.67 | NA | NA |
| MW-8G | 11/05/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.32 | NA | NA | NA | NA |
| MW-8G | 01/21/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.32 | 7.57 | 5.75 | NA | NA |
| MW-8G | 06/03/1998 | <50 | 570 | <0.5 | <0.5 | <0.5 | <0.5 | 4.0 | NA | 13.32 | 9.37 | 3.95 | NA | NA |
| MW-8G | 08/04/1998 | <50 | 200 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 13.32 | 9.89 | 3.43 | NA | NA |
| MW-8G | 11/05/1998 | <50 | 170 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 13.32 | 10.81 | 2.51 | NA | NA |
| MW-8G | 02/16/1999 | <50.0 | 270 | <0.500 | <0.500 | <0.500 | <0.500 | <2.00 | NA | 13.32 | 8.63 | 4.69 | NA | NA |
| MW-8G | 06/04/1999 | <50 | 190 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 13.32 | 7.95 | 5.37 | NA | NA |
| MW-8G | 08/31/1999 | <50.0 | 247 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 13.32 | 9.11 | 4.21 | NA | 4.5/1.3 |

WELL CONCENTRATIONS
Former Texaco Service Station
500 Grand Avenue
Oakland, CA

| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
|---------|------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|

| | | | | | | | | | | | | | | |
|--------------|-------------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-------------|-------------|-----------|----------------|
| MW-8G | 11/03/1999 | <50.0 | 174 | <0.500 | <0.500 | <0.500 | <0.500 | <5.00 | <2.00 | 13.32 | 9.58 | 3.74 | NA | 11.6/4.8 |
| MW-8G | 02/29/2000 | <50.0 | 90 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 13.32 | 5.43 | 7.89 | NA | 3.4/1.8 |
| MW-8G | 04/24/2000 | <50.0 | 72.4 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 13.32 | 6.35 | 6.97 | NA | 10.1/6.5 |
| MW-8G | 07/25/2000 | <50.0 | 79.2 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 13.32 | 8.71 | 4.61 | NA | 1.2/0.8 |
| MW-8G | 11/06/2000 | NA | 106a | NA | NA | NA | NA | NA | NA | 13.32 | 9.76 | 3.56 | NA | 1.3/1.0 |

| | | | | | | | | | | | | | | |
|-------|------------|-------------------|-------|------|------|------|------|-----|----|-------|------|-------|----|----|
| MW-8H | 01/23/1992 | 110 | <60 | 7.2 | 1.2 | 4.7 | 3.2 | NA | NA | 98.90 | 3.74 | 95.16 | NA | NA |
| MW-8H | 02/28/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 98.90 | 4.44 | 94.46 | NA | NA |
| MW-8H | 03/26/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 98.90 | 4.21 | 94.69 | NA | NA |
| MW-8H | 04/30/1992 | 190 | 90 | 11 | 1.5 | 5.6 | 3.6 | NA | NA | 98.90 | 3.46 | 95.44 | NA | NA |
| MW-8H | 09/28/1992 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 98.90 | NA | NA | NA | NA |
| MW-8H | 11/19/1992 | 130 | NA | 6.8 | <0.5 | 1.1 | 1.5 | NA | NA | 98.90 | 3.75 | 95.15 | NA | NA |
| MW-8H | 02/12/1993 | 73 | NA | 5.9 | <0.5 | 0.8 | <0.5 | NA | NA | 98.90 | 4.12 | 94.78 | NA | NA |
| MW-8H | 05/06/1993 | 57 | <100 | 1.7 | <0.5 | <0.5 | <0.5 | NA | NA | 98.90 | 3.85 | 95.05 | NA | NA |
| MW-8H | 08/16/1993 | <50 | <50 | 0.5 | <0.5 | 0.5 | 1.4 | NA | NA | 15.04 | 3.88 | 11.16 | NA | NA |
| MW-8H | 10/12/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.80 | 11.24 | NA | NA |
| MW-8H | 02/03/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.71 | 11.33 | NA | NA |
| MW-8H | 05/31/1994 | <50 | <50 | 0.79 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.80 | 11.24 | NA | NA |
| MW-8H | 08/25/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.89 | 11.15 | NA | NA |
| MW-8H | 11/02/1994 | <50 | 760 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.64 | 11.40 | NA | NA |
| MW-8H | 01/31/1995 | <50 | 190 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.58 | 11.46 | NA | NA |
| MW-8H | 05/18/1995 | <50 | 370 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.53 | 11.51 | NA | NA |
| MW-8H | 08/29/1995 | <50 | 1,000 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 15.04 | 3.55 | 11.49 | NA | NA |
| MW-8H | 11/02/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 15.04 | 3.49 | 11.55 | NA | NA |
| MW-8H | 02/05/1996 | <50 | 190 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.54 | 11.50 | NA | NA |
| MW-8H | 04/30/1996 | <50 | 1,800 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.50 | 11.54 | NA | NA |
| MW-8H | 08/28/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.62 | 11.42 | NA | NA |
| MW-8H | 12/05/1996 | 100 | 350 | 6.2 | 7.3 | 5.0 | 22 | <30 | NA | 15.04 | 3.38 | 11.66 | NA | NA |

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| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|-------------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8H | 02/21/1997 | <50 | 900 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.04 | 3.77 | 11.27 | NA | NA |
| MW-8H | 05/02/1997 | <50 | 450 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.04 | 3.64 | 11.40 | NA | NA |
| MW-8H | 07/30/1997 | <50 | 180 | <0.5 | 0.62 | <0.5 | <0.5 | <30 | NA | 15.04 | 3.65 | 11.39 | NA | NA |
| MW-8H | 11/05/1997 | <50 | 280 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.04 | 3.61 | 11.43 | NA | NA |
| MW-8H | 01/21/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.04 | 3.57 | 11.47 | NA | NA |
| MW-8H | 06/03/1998 | <50 | 440 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | NA | 15.04 | 3.50 | 11.54 | NA | NA |
| MW-8H | 08/04/1998 | <50 | 300 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 15.04 | 3.64 | 11.40 | NA | NA |
| MW-8H | 11/03/1999 | <50.0 | 576 | <0.500 | <0.500 | <0.500 | <0.500 | <5.00 | <2.00 | 15.04 | 3.49 | 11.55 | NA | NA |
| MW-8H | 04/24/2000 | <50.0 | 53.8 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 15.04 | 3.63 | 11.41 | NA | NA |
| MW-8H | 07/25/2000 | <50.0 | 90.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 15.04 | 3.54 | 11.50 | NA | NA |
| MW-8H | 11/06/2000 | NA | 433a | NA | NA | NA | NA | NA | NA | 15.04 | 3.49 | 11.55 | NA | NA |
| MW-8I | 01/23/1992 | 820 | 210 | 420 | 7 | 27 | 20 | NA | NA | 98.27 | 6.33 | 91.94 | NA | NA |
| MW-8I | 02/28/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 98.27 | 6.55 | 91.72 | NA | NA |
| MW-8I | 03/26/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 98.27 | 6.45 | 91.82 | NA | NA |
| MW-8I | 04/30/1992 | 2,200 | 430 | 1,800 | 19 | 180 | 25 | NA | NA | 98.27 | 6.48 | 91.79 | NA | NA |
| MW-8I | 09/28/1992 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 98.27 | NA | NA | NA | NA |
| MW-8I | 11/19/1992 | 720 | NA | 120 | 1.1 | 29 | 13 | NA | NA | 98.27 | 6.37 | 91.90 | NA | NA |
| MW-8I | 02/12/1993 | 4,000 | NA | 970 | 9.2 | 52 | 36 | NA | NA | 98.27 | 6.44 | 91.83 | NA | NA |
| MW-8I | 05/06/1993 | 1,400 | <10 | 370 | 2.4 | 40 | 8.4 | NA | NA | 98.27 | 6.36 | 91.91 | NA | NA |
| MW-8I | 08/16/1993 | <50 | <50 | 3.1 | <0.5 | 6 | <0.5 | NA | NA | 14.40 | 6.35 | 8.05 | NA | NA |
| MW-8I | 10/12/1993 | <50 | <50 | 1.4 | <0.5 | <0.5 | <0.5 | NA | NA | 14.40 | 5.99 | 8.41 | NA | NA |
| MW-8I | 02/03/1994 | 1,000 | <50 | 270 | 3.2 | 51 | 14 | NA | NA | 14.40 | 5.84 | 8.56 | NA | NA |
| MW-8I | 05/31/1994 | 1,400 | <50 | 330 | 4.6 | 52 | 16 | NA | NA | 14.40 | 6.25 | 8.15 | NA | NA |
| MW-8I | 08/25/1994 | 540 | <50 | 14 | 0.58 | 30 | 4.3 | NA | NA | 14.40 | 6.31 | 8.09 | NA | NA |
| MW-8I | 11/02/1994 | 310 | 370 | 5.7 | 0.74 | 20 | <0.5 | NA | NA | 14.40 | 6.10 | 8.30 | NA | NA |
| MW-8I | 01/31/1995 | 840 | 910 | 290 | 4.5 | 45 | 1.6 | NA | NA | 14.40 | 5.83 | 8.57 | NA | NA |
| MW-8I | 05/18/1995 | 1,700 | 1100 | 390 | 7.8 | 80 | 10 | NA | NA | 14.40 | 6.09 | 8.31 | NA | NA |

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| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
|---------|------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|

| | | | | | | | | | | | | | | |
|-------|------------|-------|------|--------|--------|--------|--------|-------|-------|-------|------|------|----|----------|
| MW-8I | 08/29/1995 | 300 | 560 | 81 | <0.5 | 13 | 0.63 | <10 | NA | 14.40 | 6.09 | 8.31 | NA | NA |
| MW-8I | 11/02/1995 | 81 | 160 | <0.5 | 4.1 | 1.5 | <0.5 | <10 | NA | 14.40 | 6.26 | 8.14 | NA | NA |
| MW-8I | 02/05/1996 | 300 | 140 | 75 | 0.75 | 8.4 | 1.2 | NA | NA | 14.40 | 5.97 | 8.43 | NA | NA |
| MW-8I | 04/30/1996 | 350 | <50 | 150 | 0.77 | 3.2 | 1.3 | NA | NA | 14.40 | 6.04 | 8.36 | NA | NA |
| MW-8I | 08/28/1996 | 1,100 | 380 | 300 | 2.9 | 3.2 | 2.1 | NA | NA | 14.40 | 6.20 | 8.20 | NA | NA |
| MW-8I | 12/05/1996 | 340 | 53 | 23 | 8.7 | 11 | 26 | <30 | NA | 14.40 | 6.01 | 8.39 | NA | NA |
| MW-8I | 02/21/1997 | <50 | 330 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.40 | 6.15 | 8.25 | NA | NA |
| MW-8I | 05/02/1997 | 110 | <50 | 39 | <0.5 | 0.92 | <0.5 | NA | NA | 14.40 | 6.20 | 8.20 | NA | NA |
| MW-8I | 07/30/1997 | <50 | 170 | 4.2 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.40 | 6.12 | 8.28 | NA | NA |
| MW-8I | 11/05/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.40 | 6.26 | 8.14 | NA | NA |
| MW-8I | 01/21/1998 | <50 | <50 | 1.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 14.40 | 6.00 | 8.40 | NA | NA |
| MW-8I | 06/03/1998 | <50 | 360 | <0.5 | <0.5 | <0.5 | <0.5 | 1.5 | NA | 14.40 | 6.74 | 7.66 | NA | NA |
| MW-8I | 08/04/1998 | <50 | 83 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 14.40 | 6.16 | 8.24 | NA | NA |
| MW-8I | 11/05/1998 | <50 | 67 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 14.40 | 6.14 | 8.26 | NA | NA |
| MW-8I | 08/31/1999 | NA | NA | NA | NA | NA | NA | NA | NA | 14.40 | 6.12 | 8.28 | NA | NA |
| MW-8I | 11/03/1999 | <50.0 | 192 | <0.500 | <0.500 | <0.500 | <0.500 | <5.00 | <2.00 | 14.40 | 6.45 | 7.95 | NA | 7.15/9.6 |
| MW-8I | 02/29/2000 | NA | NA | NA | NA | NA | NA | NA | NA | 14.40 | 5.69 | 8.71 | NA | 11.1 |
| MW-8I | 04/24/2000 | <50.0 | 69.2 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 14.40 | 6.25 | 8.15 | NA | 7.1/5.6 |
| MW-8I | 07/25/2000 | <50.0 | 80.1 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 14.40 | 6.22 | 8.18 | NA | 1.4/1.2 |
| MW-8I | 11/06/2000 | NA | 157a | NA | NA | NA | NA | NA | NA | 14.40 | 6.34 | 8.06 | NA | 1.5/1.1 |

| | | | | | | | | | | | | | | |
|-------|------------|-------------------|-----|------|------|------|------|----|----|-------|------|-------|----|----|
| MW-8J | 01/23/1992 | <50 | <50 | 1 | <0.5 | <0.5 | <0.5 | NA | NA | 97.69 | 6.31 | 91.38 | NA | NA |
| MW-8J | 02/28/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 97.69 | 6.28 | 91.41 | NA | NA |
| MW-8J | 03/26/1992 | NA | NA | NA | NA | NA | NA | NA | NA | 97.69 | 6.20 | 91.49 | NA | NA |
| MW-8J | 04/30/1992 | <50 | <50 | 2 | <0.5 | <0.5 | <0.5 | NA | NA | 97.69 | 6.48 | 91.21 | NA | NA |
| MW-8J | 09/28/1992 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 97.69 | NA | NA | NA | NA |
| MW-8J | 11/19/1992 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.69 | 6.55 | 91.14 | NA | NA |
| MW-8J | 02/12/1993 | <50 | NA | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.69 | 7.46 | 90.23 | NA | NA |

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| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8J | 05/06/1993 | <50 | <10 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 97.69 | 6.21 | 91.48 | NA | NA |
| MW-8J | 08/16/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 6.29 | 7.53 | NA | NA |
| MW-8J | 10/12/1993 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.87 | 7.95 | NA | NA |
| MW-8J | 02/03/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.98 | 7.84 | NA | NA |
| MW-8J | 05/31/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 6.10 | 7.72 | NA | NA |
| MW-8J | 08/25/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 6.01 | 7.81 | NA | NA |
| MW-8J | 11/02/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.90 | 7.92 | NA | NA |
| MW-8J | 01/31/1995 | <50 | <50 | 3.7 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.07 | 8.75 | NA | NA |
| MW-8J | 05/18/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.33 | 8.49 | NA | NA |
| MW-8J | 08/29/1995 | <50 | 250 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 13.82 | 3.50 | 10.32 | NA | NA |
| MW-8J | 11/02/1995 | <50 | 520 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 13.82 | 5.94 | 7.88 | NA | NA |
| MW-8J | 02/05/1996 | <50 | 65 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.34 | 8.48 | NA | NA |
| MW-8J | 04/30/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 5.96 | 7.86 | NA | NA |
| MW-8J | 08/28/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 6.38 | 7.44 | NA | NA |
| MW-8J | 12/05/1996 | 160 | <50 | 13 | 14 | 8.9 | 38 | <30 | NA | 13.82 | 5.94 | 7.88 | NA | NA |
| MW-8J | 02/21/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.82 | 5.60 | 8.22 | NA | NA |
| MW-8J | 05/02/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 13.82 | 6.22 | 7.60 | NA | NA |
| MW-8J | 07/30/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.82 | 6.28 | 7.54 | NA | NA |
| MW-8J | 11/05/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.82 | 6.03 | 7.79 | NA | NA |
| MW-8J | 01/21/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 13.82 | 5.71 | 8.11 | NA | NA |
| MW-8J | 06/03/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | NA | 13.82 | 5.45 | 8.37 | NA | NA |
| MW-8J | 08/04/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 13.82 | 5.93 | 7.89 | NA | NA |
| MW-8J | 11/05/1998 | <50 | <50 | 2.0 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 13.82 | 6.05 | 7.77 | NA | NA |
| MW-8J | 11/03/1999 | <50.0 | 58.9 | <0.500 | <0.500 | <0.500 | <0.500 | <5.00 | <2.00 | 13.82 | 5.84 | 7.98 | NA | NA |
| MW-8J | 04/24/2000 | <50.0 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 13.82 | 5.58 | 8.24 | NA | NA |
| MW-8J | 07/25/2000 | <50.0 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 13.82 | 5.89 | 7.93 | NA | NA |
| MW-8J | 11/06/2000 | NA | <50.0a | NA | NA | NA | NA | NA | NA | 13.82 | 6.24 | 7.58 | NA | NA |

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| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8K | 05/21/1993 | 54 | <50 | 12 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | NA | NA | NA | NA |
| MW-8K | 08/16/1993 | <50 | <50 | <0.5 | <0.5 | 1.0 | <0.5 | NA | NA | 15.18 | 2.08 | 13.10 | NA | NA |
| MW-8K | 10/12/1993 | <50 | <50 | 4.2 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.95 | 13.23 | NA | NA |
| MW-8K | 01/03/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.48 | 13.70 | NA | NA |
| MW-8K | 05/31/1994 | <50 | <50 | 1.0 | 0.57 | <0.5 | <0.5 | NA | NA | 15.18 | 1.59 | 13.59 | NA | NA |
| MW-8K | 08/25/1994 | <50 | <50 | 0.78 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 2.00 | 13.18 | NA | NA |
| MW-8K | 11/02/1994 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 2.10 | 13.08 | NA | NA |
| MW-8K | 01/31/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.35 | 13.83 | NA | NA |
| MW-8K | 08/18/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.36 | 13.82 | NA | NA |
| MW-8K | 08/29/1995 | <50 | 160 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 15.18 | 1.55 | 13.63 | NA | NA |
| MW-8K | 11/02/1995 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 15.18 | 1.88 | 13.30 | NA | NA |
| MW-8K | 02/05/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.46 | 13.72 | NA | NA |
| MW-8K | 04/30/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.43 | 13.75 | NA | NA |
| MW-8K | 08/28/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.75 | 13.43 | NA | NA |
| MW-8K | 12/05/1996 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.18 | 1.42 | 13.76 | NA | NA |
| MW-8K | 02/21/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.18 | 1.49 | 13.69 | NA | NA |
| MW-8K | 05/02/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 15.18 | 1.60 | 13.58 | NA | NA |
| MW-8K | 07/30/1997 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.18 | 1.66 | 13.52 | NA | NA |
| MW-8K | 11/05/1997 | <50 | 300 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.18 | 1.62 | 13.56 | NA | NA |
| MW-8K | 01/21/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 15.18 | 1.29 | 13.89 | NA | NA |
| MW-8K | 06/03/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | NA | 15.18 | 1.17 | 14.01 | NA | NA |
| MW-8K | 08/04/1998 | <50 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 15.18 | 1.21 | 13.97 | NA | NA |
| MW-8K | 11/05/1998 | <50 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | <2.5 | NA | 15.18 | 2.30 | 12.88 | NA | NA |
| MW-8K | 11/03/1999 | <50.0 | 270 | <0.500 | <0.500 | <0.500 | <0.500 | <5.00 | <2.00 | 15.18 | 1.63 | 13.55 | NA | NA |
| MW-8K | 04/24/2000 | <50.0 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 15.18 | 1.25 | 13.93 | NA | NA |
| MW-8K | 07/25/2000 | <50.0 | <50.0 | <0.500 | <0.500 | <0.500 | <0.500 | <2.50 | NA | 15.18 | 1.38 | 13.80 | NA | NA |
| MW-8K | 11/06/2000 | NA | 53.2a | NA | NA | NA | NA | NA | NA | 15.18 | 11.38 | 3.80 | NA | NA |

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| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------------|-------------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
| MW-8L | 05/21/1993 | 76 | <50 | 1.1 | <0.5 | <0.5 | 6 | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 08/16/1993 | <50 | <50 | <0.5 | <0.5 | 0.7 | 1.1 | NA | NA | 14.44 | 2.47 | 11.97 | NA | NA |
| MW-8L | 10/12/1993 | 110 | <50 | 13 | <0.5 | 6 | <0.5 | NA | NA | 14.44 | 2.36 | 12.08 | NA | NA |
| MW-8L | 01/03/1994 | 590 | <50 | 61 | 2.4 | <0.5 | 110 | NA | NA | 14.44 | 2.82 | 11.62 | NA | NA |
| MW-8L | 05/31/1994 | 410 | <50 | 77 | <0.5 | 20 | 1.1 | NA | NA | 14.44 | 2.66 | 11.78 | NA | NA |
| MW-8L | 08/25/1994 | 260 | <50 | 16 | <0.5 | 2.5 | <0.5 | NA | NA | 14.44 | 2.34 | 12.10 | NA | NA |
| MW-8L | 11/02/1994 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 01/31/1995 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | 0.08 | 14.36 | NA | NA |
| MW-8L | 08/18/1995 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | 0.42 | 14.02 | NA | NA |
| MW-8L | 08/29/1995 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 11/02/1995 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 02/05/1996 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 04/30/1996 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 08/28/1996 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | 0.75 | 13.69 | NA | NA |
| MW-8L | 12/05/1996 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 02/21/1997 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 05/02/1997 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | 0.60 | 13.84 | NA | NA |
| MW-8L | 07/30/1997 | Well inaccessible | | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |
| MW-8L | 11/05/1997 | NA | NA | NA | NA | NA | NA | NA | NA | 14.44 | 0.67 | 13.77 | NA | NA |
| MW-8L | 01/21/1998 | NA | NA | NA | NA | NA | NA | NA | NA | 14.44 | NA | NA | NA | NA |

WELL CONCENTRATIONS
Former Texaco Service Station
500 Grand Avenue
Oakland, CA

| Well ID | Date | TPPH (ug/L) | TEPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE 8020 (ug/L) | MTBE 8260 (ug/L) | TOC (MSL) | Depth to Water (ft.) | GW Elevation (MSL) | SPH Thickness (ft.) | DO Reading (ppm) |
|---------|------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|
|---------|------|----------------|----------------|-------------|-------------|-------------|-------------|------------------------|------------------------|--------------|----------------------------|--------------------------|---------------------------|------------------------|

Abbreviations:

TPPH= Total petroleum hydrocarbons as gasoline by modified EPA Method 8015

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-Phase Hydrocarbons

GW = Groundwater

ug/L = parts per billion

ppm = parts per million

msl = Mean sea level

ft = Feet

<n = Below detection limit

D = Duplicate sample

NA = Not Applicable

DO = Dissolved Oxygen

n/n = Pre-purge / Post-purge DO Readings

Notes:

** = Non-diesel mix >C16. The certified analytical report for sample MW-8G was revised on 10/21/93.

a = TEPH with Silica Gel Cleanup.

New well elevation survey performed at wells MW-8F through MW-8L on August 16, 1993 based on mean sea level (MSL). Prior data based on arbitrary site data.

Table 1. Results of Analyses of Excavation Water
(concentrations in parts per billion [ppb])

| <u>Sample</u> | <u>Depth (feet)</u> | <u>Benzene</u> | <u>Toluene</u> | <u>Ethyl-benzene</u> | <u>Xylenes</u> | <u>TPH as Gasoline</u> | <u>TPH as Diesel</u> | <u>TPH as Motor Oil</u> | <u>Total oil and Grease</u> | <u>Chlorinated Hydrocarbons</u> |
|---------------|------------------------------|----------------|----------------|----------------------|----------------|------------------------|----------------------|-------------------------|-----------------------------|---------------------------------|
| EP-01 | west trench, 280 east end | 300 | 120 | 860 | 5,200 | 31,000 | 100,000 | NA | NA | |
| WP-01 | west trench, 320 west end | 73 | 95 | 48 | 3,900 | 13,000 | 17,000 | NA | NA | |

Table 2. Results of Soil Analyses from Pipe Excavation
(concentrations in parts per million [ppm])

| <u>Sample</u> | <u>Depth (feet)</u> | <u>Benzene</u> | <u>Toluene</u> | <u>Ethyl-benzene</u> | <u>Xylenes</u> | <u>TPH as Gasoline</u> | <u>TPH as Diesel</u> | <u>TPH as Motor Oil</u> | <u>Total oil and Grease</u> | <u>Chlorinated Hydrocarbons</u> |
|---------------|---------------------|----------------|----------------|----------------------|----------------|------------------------|----------------------|-------------------------|-----------------------------|---------------------------------|
| PT-NS-7.5 | 2.5 | 0.020 | ND | 0.055 | 0.13 | 22 | 28 | 330 | 110 | ND on all |
| PT-B-7.5 | 4.5 | ND | ND | ND | ND | 5.7 | 8.1 | 93 | 150 | ND on all |
| PT-SS-7.5 | 2.5 | 0.071 | 0.071 | 0.30 | 0.63 | 100 | 17 | 160 | 630 | ND on all |
| PT-E-1.5 | 1.5 | <0.005 | <0.005 | <0.005 | <0.005 | 1.1 | 110 | NA | 780 | NA |
| PT-W-1.5 | 1.5 | <0.005 | 0.014 | <0.005 | 0.024 | 3.8 | 190 | NA | 370 | NA |

NA = Compounds not analyzed

ND = Concentrations were below the detectable limit

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|----------------|------------------------------|--|------|----------------|-------------|-------------|-------------|-------------|----------------------------|----------------------------|---------------|---------------------------|-------------------------|
| MW-8A | | | | | | | | | | | | | |
| MW-8B | | | | | | | | | | | | | Well properly abandoned |
| MW-8C | | | | | | | | | | | | | Well properly abandoned |
| MW-8D | | | | | | | | | | | | | Well properly abandoned |
| MW-8E | | | | | | | | | | | | | Well properly abandoned |
| MW-8F | | Top of Casing Elevation in feet: 97.94 | | | | | | | | | | | |
| 23-Jan-92 | 10.24 | 87.70 | 0.00 | <50 | 4.0 | 1.3 | <0.5 | 1.9 | NA | NA | 1.3 | NA | |
| 28-Feb-92 | 9.93 | 88.01 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 26-Mar-92 | 8.78 | 89.16 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 30-Apr-92 | 9.36 | 88.58 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| 28-Sep-92 | 11.83 | 86.11 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <500 | |
| 19-Nov-92 | 11.22 | 86.72 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| 12-Feb-93 | 9.66 | 88.28 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| 06-May-93 | 8.83 | 89.11 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | NA | |
| | | Top of Casing Elevation in feet: 14.04 | | | | | | | | | | | |
| 16-Aug-93 | 10.16 | 3.88 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.1 | <50 | |
| 12-Oct-93 | 10.60 | 3.44 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 03-Feb-94 | 9.29 | 4.75 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | * |
| 31-May-94 | 9.34 | 4.70 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 25-Aug-94 | 10.14 | 3.90 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 0.53 | |
| 02-Nov-94 | 10.42 | 3.62 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 1.4 | |
| 31-Jan-95 | 7.47 | 6.57 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.52 | <5 | |
| 18-May-95 | 8.00 | 6.04 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.29 | <5 | |
| 29-Aug-95 | 8.08 | 5.96 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.054 | <5 | |
| | | | | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.083 | <5 | |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|-------------|------------------------|-------------------|----|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|----------|
|-------------|------------------------|-------------------|----|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|----------|

| | | | | | | | | | | | | | |
|-----------|-------|------|------|-----|------|------|------|------|------|----|-------|-------|--|
| 02-Nov-95 | 8.70 | 5.34 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.051 | <5 | |
| 05-Feb-96 | 7.16 | 6.88 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 0.89 | |
| 30-Apr-96 | 7.25 | 6.79 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.062 | <0.05 | |
| 28-Aug-96 | 8.72 | 5.32 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 05-Dec-96 | 8.16 | 5.88 | 0.00 | 210 | 17 | 17 | 11 | 46 | <30 | NA | 0.11 | <5 | |
| 21-Feb-97 | 5.53 | 8.51 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.085 | <5 | |
| 02-May-97 | 7.85 | 6.19 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 0.81 | |
| 30-Jul-97 | 8.87 | 5.17 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.093 | <0.5 | |
| 05-Nov-97 | 9.16 | 4.88 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.14 | <0.5 | |
| 21-Jan-98 | 8.56 | 5.48 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | NA+ | |
| 03-Jun-98 | 8.30 | 5.74 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 2.9 | NA | 0.73 | <5.0 | |
| 04-Aug-98 | 10.67 | 3.37 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 0.21 | <5.0 | |
| 05-Nov-98 | 8.72 | 5.32 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 0.21 | <1.0 | |

| MW-8G | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|-----------|------------------------|--|------|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|-------------------|
| | | Top of Casing Elevation in feet: 97.24 | | | | | | | | | | | |
| 23-Jan-92 | 11.30 | 85.94 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.98 | NA | ** |
| 28-Feb-92 | 10.83 | 86.41 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 26-Mar-92 | 9.20 | 88.04 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 30-Apr-92 | 9.00 | 88.24 | 0.00 | <50 | 1.7 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <500 | |
| 28-Sep-92 | 13.32 | 83.92 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Dry |
| 19-Nov-92 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 12-Feb-93 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 06-May-93 | 11.18 | 86.06 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.06 | <250 | |
| | | Top of Casing Elevation in feet: 13.32 | | | | | | | | | | | |
| 16-Aug-93 | 9.51 | 3.81 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | * |
| 12-Oct-93 | 10.93 | 2.39 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 03-Feb-94 | 9.69 | 3.63 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 31-May-94 | 9.24 | 4.08 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 25-Aug-94 | 9.74 | 3.58 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <0.2 | |
| 02-Nov-94 | 10.08 | 3.24 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.53 | <5 | |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|-------------|------------------------|-------------------|------|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|-------------------|
| 31-Jan-95 | 5.75 | 7.57 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 18-May-95 | 6.60 | 6.72 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 29-Aug-95 | 8.14 | 5.18 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 02-Nov-95 | 9.16 | 4.16 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.12 | <5 | |
| 05-Feb-96 | 7.18 | 6.14 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.14 | <5 | |
| 30-Apr-96 | 7.00 | 6.32 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 0.51 | |
| 28-Aug-96 | 8.94 | 4.38 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <0.05 | |
| 05-Dec-96 | 9.22 | 4.10 | 0.00 | 190 | 16 | 16 | 9.0 | 39 | <30 | NA | 0.057 | <5 | |
| 21-Feb-97 | 6.11 | 7.21 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.054 | <5 | |
| 02-May-97 | 7.54 | 5.78 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.054 | <5 | |
| 30-Jul-97 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.05 | <5 | |
| 05-Nov-97 | 9.65 | 3.67 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | NA | NA | Well Inaccessible |
| 05-Nov-97 | NA | NA | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <0.5 | |
| 21-Jan-98 | 7.57 | 5.75 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <0.5 | |
| 03-Jun-98 | 9.37 | 3.95 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | NA+ | |
| 04-Aug-98 | 9.89 | 3.43 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 4.0 | NA | 0.57 | <5.0 | |
| 05-Nov-98 | 10.81 | 2.51 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 0.20 | <5.0 | |

| MW-8H | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|-----------|------------------------|--|------|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|-------------------|
| | | Top of Casing Elevation in feet: 98.90 | | | | | | | | | | | |
| 23-Jan-92 | 3.74 | 95.16 | 0.00 | 110 | 7.2 | 1.2 | 4.7 | 3.2 | NA | NA | <0.06 | NA | |
| 28-Feb-92 | 4.44 | 94.46 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 26-Mar-92 | 4.21 | 94.69 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 30-Apr-92 | 3.46 | 95.44 | 0.00 | 190 | 11 | 1.5 | 5.6 | 3.6 | NA | NA | 0.09 | <500 | |
| 28-Sep-92 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 19-Nov-92 | 3.75 | 95.15 | 0.00 | 130 | 6.8 | <0.5 | 1.1 | 1.5 | NA | NA | NA | NA | |
| 12-Feb-93 | 4.12 | 94.78 | 0.00 | 73 | 5.9 | <0.5 | 0.8 | <0.5 | NA | NA | NA | NA | |
| 06-May-93 | 3.85 | 95.05 | 0.00 | 57 | 1.7 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| | | Top of Casing Elevation in feet: 15.04 | | | | | | | | | | | |
| 16-Aug-93 | 3.88 | 11.16 | 0.00 | <50 | 0.5 | <0.5 | 0.5 | 1.4 | NA | NA | <0.05 | <50 | |
| 12-Oct-93 | 3.80 | 11.24 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|--------------|------------------------|---|------|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|-------------------|
| 03-Feb-94 | 3.71 | 11.33 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 31-May-94 | 3.80 | 11.24 | 0.00 | <50 | 0.79 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 1.6 | |
| 25-Aug-94 | 3.89 | 11.15 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 4.0 | |
| 02-Nov-94 | 3.64 | 11.40 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.76 | <5 | |
| 31-Jan-95 | 3.58 | 11.46 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.19 | <5 | |
| 18-May-95 | 3.53 | 11.51 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.37 | 6.6 | |
| 29-Aug-95 | 3.55 | 11.49 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 1.0 | <5 | |
| 02-Nov-95 | 3.49 | 11.55 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | <0.05 | 5.8 | |
| 05-Feb-96 | 3.54 | 11.50 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.19 | 2.3 | |
| 30-Apr-96 | 3.50 | 11.54 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 1.80 | 0.0087 | |
| 28-Aug-96 | 3.62 | 11.42 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 7.7 | |
| 05-Dec-96 | 3.38 | 11.66 | 0.00 | 100 | 6.2 | 7.3 | 5.0 | 22 | <30 | NA | 0.35 | <5 | |
| 21-Feb-97 | 3.77 | 11.27 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.90 | <13 | |
| 02-May-97 | 3.64 | 11.40 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.45 | <5 | |
| 30-Jul-97 | 3.65 | 11.39 | 0.00 | <50 | <0.5 | 0.62 | <0.5 | <0.5 | <30 | NA | 0.18 | 13 | |
| 05-Nov-97 | 3.61 | 11.43 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.28 | 4.1 | |
| 21-Jan-98 | 3.57 | 11.47 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | 4.7 | |
| 03-Jun-98 | 3.50 | 11.54 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.44 | 11 | |
| 04-Aug-98 | 3.64 | 11.40 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 0.30 | 9.6 | |
| 05-Nov-98 | 3.21 | 11.83 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 0.23 | <10 | |
| MW-81 | | Top of Casing Elevation in feet: 98.27 | | | | | | | | | | | |
| 23-Jan-92 | 6.33 | 91.94 | 0.00 | 820 | 420 | 7 | 27 | 20 | NA | NA | 0.21 | NA | |
| 28-Feb-92 | 6.55 | 91.72 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 26-Mar-92 | 6.45 | 91.82 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 30-Apr-92 | 6.48 | 91.79 | 0.00 | 2,200 | 1,800 | 19 | 180 | 25 | NA | NA | 0.43 | <500 | |
| 28-Sep-92 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 19-Nov-92 | 6.37 | 91.90 | 0.00 | 720 | 120 | 1.1 | 29 | 13 | NA | NA | NA | NA | Well Inaccessible |
| 12-Feb-93 | 6.44 | 91.83 | 0.00 | 4,000 | 970 | 9.2 | 52 | 36 | NA | NA | NA | NA | |
| 06-May-93 | 6.36 | 91.91 | 0.00 | 1,400 | 370 | 2.4 | 40 | 8.4 | NA | NA | <0.01 | <50 | |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|-------------|------------------------|-------------------|----|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|----------|
|-------------|------------------------|-------------------|----|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|----------|

| Top of Casing Elevation in feet: 14.40 | | | | | | | | | | | | | |
|--|------|------|------|-------|-------|-------|-------|-------|------|----|-------|--------|---|
| 16-Aug-93 | 6.35 | 8.05 | 0.00 | <50 | 3.1 | <0.5 | 6 | <0.5 | NA | NA | <0.05 | <50 | |
| 12-Oct-93 | 5.99 | 8.41 | 0.00 | <50 | 1.4 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | * |
| 03-Feb-94 | 5.84 | 8.56 | 0.00 | 1,000 | 270 | 3.2 | 51 | 14 | NA | NA | <0.05 | <50 | |
| 31-May-94 | 6.25 | 8.15 | 0.00 | 1,400 | 330 | 4.6 | 52 | 16 | NA | NA | <0.05 | <50 | |
| 25-Aug-94 | 6.31 | 8.09 | 0.00 | 540 | 14 | 0.58 | 30 | 4.3 | NA | NA | <0.05 | 0.33 | |
| 02-Nov-94 | 6.10 | 8.30 | 0.00 | 310 | 5.7 | 0.74 | 20 | <0.5 | NA | NA | <0.05 | 0.73 | |
| 31-Jan-95 | 5.83 | 8.57 | 0.00 | 840 | 290 | 4.5 | 45 | 1.6 | NA | NA | 0.37 | <5 | |
| 18-May-95 | 6.09 | 8.31 | 0.00 | 1,700 | 390 | 7.8 | 80 | 10 | NA | NA | 0.91 | <5 | |
| 29-Aug-95 | 6.09 | 8.31 | 0.00 | 300 | 81 | <0.5 | 13 | 0.63 | <10 | NA | 0.56 | <5 | |
| 02-Nov-95 | 6.26 | 8.14 | 0.00 | 81 | <0.5 | 4.1 | 1.5 | <0.5 | <10 | NA | 0.16 | <5 | |
| 05-Feb-96 | 5.97 | 8.43 | 0.00 | 300 | 75 | 0.75 | 8.4 | 1.2 | NA | NA | 0.14 | <0.5 | |
| 30-Apr-96 | 6.04 | 8.36 | 0.00 | 350 | 150 | 0.77 | 3.2 | 1.3 | NA | NA | <0.05 | <0.005 | |
| 28-Aug-96 | 6.20 | 8.20 | 0.00 | 1100 | 300 | 2.9 | 3.2 | 2.1 | NA | NA | 0.38 | <5 | |
| 05-Dec-96 | 6.01 | 8.39 | 0.00 | 340 | 23 | 8.7 | 11 | 26 | <30 | NA | 0.053 | <5 | |
| 21-Feb-97 | 6.15 | 8.25 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.33 | <5 | |
| 02-May-97 | 6.20 | 8.20 | 0.00 | 110 | 39 | <0.5 | 0.92 | <0.5 | NA | NA | <0.05 | <5 | |
| 30-Jul-97 | 6.12 | 8.28 | 0.00 | <50 | 4.2 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.17 | 1.2 | |
| 05-Nov-97 | 6.26 | 8.14 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <0.5 | |
| 21-Jan-98 | 6.00 | 8.40 | 0.00 | <50 | 1.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | 0.76 | |
| 03-Jun-98 | 6.74 | 7.66 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | 1.5 | NA | 0.36 | <5.0 | |
| 04-Aug-98 | 6.16 | 8.24 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | 0.083 | <5.0 | |
| 05-Nov-98 | 6.14 | 8.28 | 0.00 | <50 | <0.50 | <0.50 | <0.50 | <0.50 | 2.5 | NA | 0.067 | 2.1 | |

| MW-8J Top of Casing Elevation in feet: 97.69 | | | | | | | | | | | | | |
|--|------|-------|------|-----|----|------|------|------|----|----|-------|------|-------------------|
| 23-Jan-92 | 6.31 | 91.38 | 0.00 | <50 | 1 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | NA | |
| 28-Feb-92 | 6.28 | 91.41 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 26-Mar-92 | 6.20 | 91.49 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 30-Apr-92 | 6.48 | 91.21 | 0.00 | <50 | 2 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| 28-Sep-92 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | <0.05 | <500 | Well Inaccessible |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|----------------|------------------------------|--|------|----------------|-------------|-------------|-------------|-------------|----------------------------|----------------------------|---------------|---------------------------|----------|
| 19-Nov-92 | 6.55 | 91.14 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| 12-Feb-93 | 7.46 | 90.23 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| 06-May-93 | 6.21 | 91.48 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | NA | NA | |
| | | Top of Casing Elevation in feet: 13.82 | | | | | | | | | | | |
| 16-Aug-93 | 6.29 | 7.53 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.01 | <50 | |
| 12-Oct-93 | 5.87 | 7.95 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 03-Feb-94 | 5.98 | 7.84 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 31-May-94 | 6.10 | 7.72 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 25-Aug-94 | 6.01 | 7.81 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <0.2 | |
| 02-Nov-94 | 5.90 | 7.92 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 1.0 | |
| 31-Jan-95 | 5.07 | 8.75 | 0.00 | <50 | 3.7 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 18-May-95 | 5.33 | 8.49 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 29-Aug-95 | 3.50 | 10.32 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 02-Nov-95 | 5.94 | 7.88 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.25 | <5 | |
| 05-Feb-96 | 5.34 | 8.48 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.52 | <5 | |
| 30-Apr-96 | 5.96 | 7.86 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | 0.065 | 1.0 | |
| 28-Aug-96 | 6.38 | 7.44 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <0.05 | |
| 05-Dec-96 | 5.94 | 7.88 | 0.00 | 160 | 13 | 14 | 8.9 | 38 | <30 | NA | <0.05 | <5 | |
| 21-Feb-97 | 5.60 | 8.22 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <5 | |
| 02-May-97 | 6.22 | 7.60 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <5 | |
| 30-Jul-97 | 6.28 | 7.54 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 05-Nov-97 | 6.03 | 7.79 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <0.5 | |
| 21-Jan-98 | 5.71 | 8.11 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <0.5 | |
| 03-Jun-98 | 5.45 | 8.37 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | 0.34 | |
| 04-Aug-98 | 5.93 | 7.89 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | NA | <0.05 | <5.0 | |
| 05-Nov-98 | 6.05 | 7.77 | 0.00 | <50 | 2.0 | <0.50 | <0.50 | <0.50 | <2.5 | NA | <0.05 | <5.0 | |
| MW-8K | | Top of Casing Elevation in feet: 15.18 | | | | | | | | | | | |
| 21-May-93 | NA | NA | 0.00 | 54 | 12 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 16-Aug-93 | 2.08 | 13.10 | 0.00 | <50 | <0.5 | <0.5 | 1.0 | <0.5 | NA | NA | <0.05 | <50 | |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|----------------|------------------------------|-------------------------|----|----------------|-------------|-------------|-------------|-------------|----------------------------|----------------------------|---------------|---------------------------|----------|
|----------------|------------------------------|-------------------------|----|----------------|-------------|-------------|-------------|-------------|----------------------------|----------------------------|---------------|---------------------------|----------|

| | | | | | | | | | | | | | |
|-----------|------|-------|------|-----|------|------|------|------|------|----|-------|--------|--|
| 12-Oct-93 | 1.95 | 13.23 | 0.00 | <50 | 4.2 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 03-Jan-94 | 1.48 | 13.70 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <50 | |
| 31-May-94 | 1.59 | 13.59 | 0.00 | <50 | 1.0 | 0.57 | <0.5 | <0.5 | NA | NA | <0.05 | <0.2 | |
| 25-Aug-94 | 2.00 | 13.18 | 0.00 | <50 | 0.78 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | 0.98 | |
| 02-Nov-94 | 2.10 | 13.08 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 31-Jan-95 | 1.35 | 13.83 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 18-Aug-95 | 1.36 | 13.82 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 29-Aug-95 | 1.55 | 13.63 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 02-Nov-95 | 1.88 | 13.30 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | 0.16 | <5 | |
| 05-Feb-96 | 1.46 | 13.72 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <10 | NA | <0.05 | <5 | |
| 30-Apr-96 | 1.43 | 13.75 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <0.5 | |
| 28-Aug-96 | 1.75 | 13.43 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <0.005 | |
| 05-Dec-96 | 1.42 | 13.76 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 21-Feb-97 | 1.49 | 13.69 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <5 | |
| 02-May-97 | 1.60 | 13.58 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <5 | |
| 30-Jul-97 | 1.66 | 13.52 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | NA | NA | <0.05 | <5 | |
| 05-Nov-97 | 1.62 | 13.56 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | <0.5 | |
| 21-Jan-98 | 1.29 | 13.89 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | 0.30 | <0.5 | |
| 03-Jun-98 | 1.17 | 14.01 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <30 | NA | <0.05 | 0.12 | |
| 04-Aug-98 | 1.21 | 13.97 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | NA | <0.05 | <5.0 | |
| 05-Nov-98 | 2.30 | 12.88 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | <0.5 | <2.5 | NA | <0.05 | <5.0 | |

| MW-8L | Top of Casing Elevation in feet: 14.44 | | | | | | | | | | | | |
|-----------|--|-------|------|-----|------|------|------|------|----|----|-------|------|-------------------|
| 21-May-93 | NA | NA | 0.00 | 76 | 1.1 | <0.5 | <0.5 | 6 | NA | NA | <0.05 | <50 | |
| 16-Aug-93 | 2.47 | 11.97 | 0.00 | <50 | <0.5 | <0.5 | <0.5 | 6 | NA | NA | <0.05 | <50 | |
| 12-Oct-93 | 2.36 | 12.08 | 0.00 | 110 | 13 | <0.5 | 0.7 | 1.1 | NA | NA | <0.05 | <50 | |
| 03-Jan-94 | 2.82 | 11.62 | 0.00 | 590 | 61 | 2.4 | <0.5 | 110 | NA | NA | <0.05 | <50 | |
| 31-May-94 | 2.66 | 11.78 | 0.00 | 410 | 77 | <0.5 | 20 | 1.1 | NA | NA | <0.05 | <0.2 | |
| 25-Aug-94 | 2.34 | 12.10 | 0.00 | 260 | 16 | <0.5 | 2.5 | <0.5 | NA | NA | <0.05 | 1.1 | |
| 02-Nov-94 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |

GROUND WATER CHEMICAL ANALYTICAL DATA
Texaco Branded Service Station
500 Grand Ave.
Oakland, CA

| Sample Date | Measured GW Depth (ft) | GW Elevation (ft) | SP | TPPH (ug/L) | B (ug/L) | T (ug/L) | E (ug/L) | X (ug/L) | MTBE EPA 8020 (ug/L) | MTBE EPA 8260 (ug/L) | TEPH (ppm) | TPH as Other* (ppm) | Comments |
|-------------|------------------------|-------------------|----|-------------|----------|----------|----------|----------|----------------------|----------------------|------------|---------------------|-------------------|
| 31-Jan-95 | 0.08 | 14.36 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| 18-Aug-95 | 0.42 | 14.02 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 29-Aug-95 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 02-Nov-95 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 05-Feb-96 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 30-Apr-96 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 28-Aug-96 | 0.75 | 13.69 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 05-Dec-96 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 21-Feb-97 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 02-May-97 | 0.60 | 13.84 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 30-Jul-97 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 05-Nov-97 | 0.67 | 13.77 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| 21-Jan-98 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | Well Inaccessible |
| | | | | | | | | | | | | | Not Sampled |
| | | | | | | | | | | | | | No Longer Sampled |

Abbreviations:

TPPH = Total Purgeable Petroleum Hydrocarbons carbon range C6 to C12 by EPA Method 8015 (Modified)
 (previously reported as Total Petroleum Hydrocarbons as Gasoline)

BTEX = benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020

MTBE = methyl-tertiary-butyl ether

TEPH = Total Extractable Petroleum Hydrocarbons

NA = Not analyzed or not available

<x = Not detected at laboratory detection limit x

SP = Separate Phase hydrocarbon

+ = Results for Oil & Grease analysis for samples MW-8F and MW-8G were not available due to VOC Analytical's bankruptcy.

* = Includes "heavy" petroleum hydrocarbons such as waste oil, mineral spirits, jet fuel, or fuel oil.

** = Non-diesel mix >C16. The certified analytical report for sample MW-8G was revised on 10/21/93.

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
TRPH

Former Texaco Service Station
500 Grand Avenue at Euclid Avenue
Oakland, California

| Well Number | Date Sampled | TRPH (ppb) |
|--------------|---|------------|
| MW-8F | 02/16/99 | <1,000 |
| | 06/04/99 | <1,000 |
| | 08/31/99 | <5,000 |
| | 11/03/99 | <5,000 |
| | 02/29/00 | <5,000 |
| | 04/24/00 | <5,000 |
| | 07/25/00 | <5,000 |
| | 11/06/00 | <5,000 |
| MW-8G | 02/16/99 | <1,000 |
| | 06/04/99 | 23,000 |
| | 08/31/99 | <5,000 |
| | 11/03/99 | <5,000 |
| | 02/29/00 | <5,000 |
| | 04/24/00 | <5,000 |
| | 07/25/00 | <5,000 |
| | 11/06/00 | <5,000 |
| MW-8H | 11/03/99 | 24,000 |
| | 04/24/00 | 35,200 |
| | 07/25/00 | 13,200 |
| | 11/06/00 | <5,000 |
| MW-8I | 11/03/99 | 11,000 |
| | 04/24/00 | <5,000 |
| | 07/25/00 | 11,100 |
| | 11/06/00 | <5,000 |
| MW-8J | 11/03/99 | 10,000 |
| | 04/24/00 | <5,000 |
| | 07/25/00 | 6,400 |
| | 11/06/00 | <5,000 |
| MW-8K | 11/03/99 | <5,000 |
| | 04/24/00 | <5,000 |
| | 07/25/00 | 9,100 |
| | 11/06/00 | <5,000 |
| TRPH | = Total recoverable petroleum hydrocarbons (quantified as oil and grease) | |
| ppb | = Parts per billion | |
| < | = Less than laboratory detection limit stated to the right | |

**TABLE B. SURFACE SOIL ($\leq 3m$ bgs) SOIL AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| CHEMICAL | SURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|--|--|--|---|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| ACENAPHTHENE | 16 | 16 | 23 | - |
| ACENAPHTHYLENE | 130 | 130 | 310 | - |
| ACETONE | 0.51 | 0.51 | 1500 | - |
| ALDRIN | 0.029 | 0.15 | 0.13 | 0.00014 |
| ANTHRACENE | 2.9 | 2.9 | 0.73 | - |
| ANTIMONY | 6.3 | 40 | 30 | - |
| ARSENIC | 0.39 | 2.7 | 36 | - |
| BARIUM | 750 | 1500 | 3.9 | - |
| BENZENE | 0.18 | 0.39 | 46 | - |
| BENZO(a)ANTHRACENE | 0.38 | 1.8 | 0.027 | 0.049 |
| BENZO(b)FLUORANTHENE | 0.38 | 1.8 | 7.0 | 0.049 |
| BENZO(k)FLUORANTHENE | 0.38 | 1.8 | 0.40 | 0.049 |
| BENZO(g,h,i)PERYLENE | 5.3 | 5.3 | 0.02 | - |
| BENZO(a)PYRENE | 0.038 | 0.18 | 0.014 | - |
| BERYLLIUM | 4.0 | 8.0 | 5.1 | - |
| BIPHENYL 1,1 | 6.5 | 6.5 | 5.0 | - |
| BIS(2-CHLOROETHYL)ETHER | 0.015 (0.095) | 0.061 (0.28) | 122 | 1.4 |
| BIS(2-CHLOROISOPROPYL)ETHER | 1.3 | 1.3 | 122 | - |
| BIS(2-ETHYLHEXYL)PHTHALATE | 35 | 180 | 32 | 5.9 |
| BORON | 1.6 | 2.0 | 1.6 | - |
| BROMODICHLOROMETHANE | 0.025 (0.48) | 0.098 (1.1) | 420 (6400) | - |
| BROMOFORM | 62 | 110 | 5100 | 360 |
| BROMOMETHANE | 0.78 | 2.6 | 320 | - |
| CADMIUM | 7.4 | 12 | 1.1 | - |
| CARBON TETRACHLORIDE | 0.021 (0.059) | 0.074 (0.19) | 9.8 | 4.4 |
| CHLORDANE | 0.47 | 3.1 | 0.004 | 0.00059 |
| CHLOROANILINE, p- | 0.11 | 0.11 | 10 | - |
| CHLOROBENZENE | 3.0 | 3.0 | 50 | - |
| CHLOROETHANE | 1.1 | 2.1 (3.7) | 30 (100) | - |
| CHLOROFORM | 0.079 | 0.26 | 28 | 470 |
| CHLOROMETHANE | 0.49 | 0.87 (1.7) | 5.6 (1300) | - |
| CHLOROPHENOL, 2- | 0.12 | 0.12 | 1.8 | 400 |
| CHROMIUM (Total - assumes 1/6 ratio Cr6/Cr3) | 9.8 | 12 | 180 | - |
| CHROMIUM III | 750 | 750 | 180 | - |
| CHROMIUM VI | 1.4 | 1.8 | 11 | - |
| CHRYSENE | 3.8 | 4.7 | 0.07 | 0.049 |
| COBALT | 40 | 80 | 3.0 | - |
| COPPER | 225 | 225 | 2.4 | - |
| CYANIDE (Free) | 100 | 500 | 1.0 | - |
| DIBENZO(a,h)ANTHTRACENE | 0.11 | 0.51 | 0.25 | 0.049 |
| DIBROMOCHLOROMETHANE | 1.1 | 2.7 | 6400 | - |
| DIBROMOETHANE, 1,2- | 0.10 | 0.39 | 280 | - |
| DICHLOROBENZENE, 1,2- | 1.0 | 1.0 | 14 | - |
| DICHLOROBENZENE, 1,3- | 2.6 | 5.3 | 71 | - |
| DICHLOROBENZENE, 1,4- | 0.13 (1.8) | 0.49 (1.8) | 15 | - |
| DICHLOROBENZIDINE, 3,3- | 0.40 | 2.1 | 50 | 0.077 |
| DICHLORODIPHENYLDICHLOROETHANE (DDD) | 2.4 | 17 | 0.06 | 0.00084 |

**TABLE B. SURFACE SOIL ($\leq 3m$ bgs) SOIL AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| CHEMICAL | SURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|--|--|--|---|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| DICHLORODIPHENYLDICHLOROETHYLENE (DDE) | 1.7 | 4.0 | 1.4 | 0.00059 |
| DICHLORODIPHENYLTRICHLOROETHANE (DDT) | 1.7 | 4.0 | 0.001 | 0.00059 |
| DICHLOROETHANE, 1,1 | 0.55 (2.1) | 1.9 (2.1) | 47 | - |
| DICHLOROETHANE 1,2 | 0.034 (0.35) | 0.12 (0.76) | 420 (910) | 99 |
| DICHLOROETHYLENE, 1,1 | 0.018 (0.028) | 0.062 (0.12) | 9.6 (25) | 3.2 |
| DICHLOROETHYLENE, Cis 1,2 | 2.7 (8.6) | 7.7 (18) | 590 | - |
| DICHLOROETHYLENE, Trans 1,2- | 5.3 (13) | 15 (38) | 590 | - |
| DICHLOROPHENOL, 2,4- | 3.0 | 3.0 | 3.0 | - |
| DICHLOROPROPANE, 1,2- | 0.049 (0.37) | 0.17 (0.82) | 100 | 39 |
| DICHLOROPROPENE, 1,3 | 0.055 (0.090) | 0.19 (0.38) | 65 (244) | - |
| DIELDRIN | 0.002 | 0.002 | 0.0019 | 0.00014 |
| DIETHYLPHTHALATE | 0.070 | 0.070 | 3.0 | - |
| DIMETHYLPHTHALATE | 0.070 | 0.070 | 3.0 | - |
| DIMETHYLPHENOL, 2,4- | 0.74 | 0.74 | 110 | - |
| DINITROPHENOL 2,4 | 0.42 | 0.42 | 150 | - |
| DINITROTOLUENE, 2,4- | 1.6 | 1.7 | 230 | 9.1 |
| DIOXIN / FURAN (ng TEQ /g soil) | 0.0000039 | 0.000027 | <0.00001 | 0.000000014 |
| ENDOSULFRAN | 0.005 | 0.005 | 0.0087 | - |
| ENDRIN | 0.0006 | 0.0006 | 0.0023 | - |
| ETHYLBENZENE | 24 | 24 | 290 | - |
| FLUORANTHENE | 40 | 40 | 8.1 | - |
| FLUORENE | 5.1 | 5.1 | 3.9 | - |
| HEPTACHLOR | 0.013 | 0.013 | 0.0036 | 0.00021 |
| HEPTACHLOR EPOXIDE | 0.014 | 0.014 | 0.0036 | 0.00011 |
| HEXACHLOR BENZENE | 0.27 | 1.4 | 3.7 | 0.00077 |
| HEXACHLOROBUTADIENE | 2.4 | 32 | 9.3 | - |
| HEXACHLOROCYCLOHEXANE (gamma) LINDANE | 0.049 | 0.049 | 0.08 | 0.063 |
| HEXACHLOROETHANE | 12 | 41 | 12 | 8.9 |
| INDENO(1,2,3-cd)PYRENE | 0.36 | 1.8 | 0.27 | 0.049 |
| LEAD | 200 | 1000 | 3.2 | - |
| MERCURY | 4.7 | 10 | 0.012 | 0.051 |
| METHOXYCHLOR | 19 | 19 | 0.03 | - |
| METHYLENE CHLORIDE | 0.89 (4.2) | 3.1 (9.6) | 2200 | 1600 |
| METHYL ETHYL KETONE | 13 | 13 | 14000 | - |
| METHYL ISOBUTYL KETONE | 3.8 | 3.8 | 170 | - |
| METHYL MERCURY | 1.2 | 10 | 0.003 | - |
| METHYLNAPHTHALENE, 2-(1-) | 0.25 | 0.25 | 2.1 | - |
| METHYL TERT BUTYL ETHER | 1.0 | 1.0 | 1800 | - |
| MOLYBDENUM | 40 | 40 | 240 | - |
| NAPHTHALENE | 1.7 (4.9) | 4.9 | 24 | - |
| NICKEL (soiluable salts) | 150 | 150 | 8.2 | - |
| PENTACHLOROPHENOL | 5.0 | 5.0 | 7.9 | - |
| PHENANTHRENE | 11 | 11 | 4.6 | - |
| PHENOL | 39 | 39 | 2560 | - |
| POLYCHLORINATED BIPHENYLS (PCBs) | 0.22 | 1.0 | 0.014 | 0.00017 |
| PYRENE | 55 | 55 | 0.40 | - |
| SELENIUM | 10 | 10 | 5.0 | - |

**TABLE B. SURFACE SOIL ($\leq 3\text{m bgs}$) SOIL AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| CHEMICAL | SURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|-----------------------------|--|--|---|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| SILVER COMPOUNDS | 20 | 40 | 0.12 | - |
| STYRENE | 17 | 17 | 100 | - |
| TETRACHLOROETHANE, 1,1,1,2- | 3.0 | 7.0 | 930 | - |
| TETRACHLOROETHANE, 1,1,2,2- | 0.024 (0.28) | 0.093 (0.66) | 420 | 11 |
| TETRACHLOROETHYLENE | 0.15 (0.95) | 0.53 (2.1) | 120 | 8.85 |
| THALLIUM | 1.1 | 29 | 40 | 6.3 |
| TOLUENE | 8.4 | 8.4 | 130 | - |
| TPH (gasolines) | 400 | 400 | 500 | - |
| TPH (middle distillates) | 500 | 500 | 640 | - |
| TPH (residual fuels) | 500 | 1000 | 640 | - |
| TRICHLOROBENZENE, 1,2,4 | 15 | 15 | 50 | - |
| TRICHLOROETHANE, 1,1,1 | 8.0 | 8.0 | 62 | - |
| TRICHLOROETHANE, 1,1,2- | 0.055 (0.84) | 0.19 (1.9) | 930 (9400) | 42 |
| TRICHLOROETHYLENE | 0.44 (1.7) | 1.5 (3.7) | 360 | 81 |
| TRICHLOROPHENOL, 2,4,5- | 0.18 | 0.18 | 11 | - |
| TRICHLOROPHENOL, 2,4,6- | 6.9 | 10 | 970 | 6.5 |
| VANADIUM | 110 | 200 | 19 | - |
| VINYL CHLORIDE | 0.011 | 0.040 | 4.9 (782) | 525 |
| XYLENES | 1.0 | 1.0 | 13 | - |
| ZINC | 600 | 600 | 23 | - |

**TABLE B. SURFACE SOIL ($\leq 3m$ bgs) SOIL AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| | SURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|--|--|---|--|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| CHEMICAL | | | | |
| Electrical Conductivity (mS/cm, USEPA Method 120.1 MOD) | 2.0 | 4.0 | no criteria | no criteria |
| Sodium Absorption Ratio | 5.0 | 12 | no criteria | no criteria |

Notes:

Source of soil RBSLs: Refer to Tables B-1 and B-2 in Appendix 1.

Source of groundwater RBSLs: Refer to Table F-2 Appendix 1.

Category "Residential Land Use Permitted" based on residential land-use scenario.

Surface soil less than or equal to 3 meters (approximately 10 feet) below ground surface.

Soil RBSLs intended to address direct-contact, indoor-air impact, groundwater protection, ecologic and nuisance concerns under noted land-use scenarios. Refer to appendices for summary of RBSL components.

Groundwater RBSLs intended to be protective of surface water quality, indoor-air impacts and nuisance concerns.

Value in parentheses applicable if vadose zone soils are predominantly fine-grained, silty, clayey loams (<20% sand-size (0.075mm) or larger material - i.e. $\geq 80\%$ of soil material will pass through 200 mesh sieve).

Category "Elevated Threat To Surface Water" screening levels address potential long-term impacts to surface water bodies and bioaccumulation concerns in aquatic organisms potentially consumed by humans. Not addressed in soil RBSLs.

TPH -Total Petroleum Hydrocarbons. See Appendix 1, Chapter 4 for discussion of different TPH categories.

**TABLE D. *SUBSURFACE SOIL (> 3m bgs) AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| CHEMICAL | *SUBSURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|--|--|---|--|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| ACENAPHTHENE | 16 | 16 | 23 | - |
| ACENAPHTHYLENE | 130 | 130 | 310 | - |
| ACETONE | 0.51 | 0.51 | 1500 | - |
| ALDRIN | 0.95 | 0.95 | 0.13 | 0.00014 |
| ANTHRACENE | 2.9 | 2.9 | 0.73 | - |
| ANTIMONY | 210 | 210 | 30 | - |
| ARSENIC | 13 | 13 | 36 | - |
| BARIUM | 2400 | 2400 | 3.9 | - |
| BENZENE | 0.18 | 0.39 | 46 | - |
| BENZO(a)ANTHRACENE | 12 | 12 | 0.027 | 0.049 |
| BENZO(b)FLUORANTHENE | 12 | 12 | 7.0 | 0.049 |
| BENZO(k)FLUORANTHENE | 12 | 12 | 0.40 | 0.049 |
| BENZO(g,h,i)PERYLENE | 5.3 | 5.3 | 0.02 | - |
| BENZO(a)PYRENE | 1.2 | 1.2 | 0.014 | - |
| BERYLLIUM | 95 | 95 | 5.1 | - |
| BIPHENYL 1,1 | 6.5 | 6.5 | 5.0 | - |
| BIS(2-CHLOROETHYL)ETHER | 0.015 (1.6) | 0.061 (1.6) | 122 | 1.4 |
| BIS(2-CHLOROISOPROPYL)ETHER | 1.3 | 1.3 | 122 | - |
| BIS(2-ETHYLHEXYL)PHTHALATE | 530 | 530 | 32 | 5.9 |
| BORON | 23000 | 23000 | 1.6 | - |
| BROMODICHLOROMETHANE | 0.025 (0.95) | 0.098 (4.0) | 420 (6400) | - |
| BROMOFORM | 110 | 110 | 5100 | 360 |
| BROMOMETHANE | 13 | 13 | 320 | - |
| CADMIUM | 61 | 61 | 1.1 | - |
| CARBON TETRACHLORIDE | 0.021 (0.059) | 0.074 (0.25) | 9.8 | 4.4 |
| CHLORDANE | 15 | 15 | 0.004 | 0.00059 |
| CHLOROANILINE, p- | 0.11 | 0.11 | 10 | - |
| CHLOROBENZENE | 3.0 | 3.0 | 50 | - |
| CHLOROETHANE | 1.1 (1.1) | 2.1 (3.7) | 30 (100) | - |
| CHLOROFORM | 0.17 (0.88) | 0.58 (0.88) | 28 | 470 |
| CHLOROMETHANE | 0.49 | 0.87 (1.7) | 5.6 (1300) | - |
| CHLOROPHENOL, 2- | 0.12 | 0.12 | 1.8 | 400 |
| CHROMIUM (Total - assumes 1/6 ratio Cr6/Cr3) | 12 | 12 | 180 | - |
| CHROMIUM III | 2500 | 5000 | 180 | - |
| CHROMIUM VI | 18 | 1.8 | 11 | - |
| CHRYSENE | 4.7 | 4.7 | 0.07 | 0.049 |
| COBALT | 2500 | 5000 | 3.0 | - |
| COPPER | 2500 | 5000 | 2.4 | - |
| CYANIDE (Free) | 500 | 1000 | 1.0 | - |
| DIBENZO(a,h)ANTHRACENE | 3.5 | 3.5 | 0.25 | 0.049 |
| DIBROMOCHLOROMETHANE | 88 | 88 | 6400 | - |
| DIBROMOETHANE, 1,2- | 1.9 | 1.9 | 280 | - |
| DICHLOROBENZENE, 1,2- | 1.0 | 1.0 | 14 | - |
| DICHLOROBENZENE, 1,3- | 5.3 | 5.3 | 71 | - |
| DICHLOROBENZENE, 1,4- | 0.13 (1.8) | 0.49 (1.8) | 15 | - |
| DICHLOROBENZIDINE, 3,3- | 13 | 13 | 50 | 0.077 |
| DICHLORODIPHENYLDICHLOROETHANE (DDD) | 91 | 91 | 0.06 | 0.00084 |

**TABLE D. *SUBSURFACE SOIL (> 3m bgs) AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| CHEMICAL | *SUBSURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|--|--|---|--|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| DICHLORODIPHENYLDICHLOROETHYLENE (DDE) | 64 | 64 | 1.4 | 0.00059 |
| DICHLORODIPHENYLTRICHLOROETHANE (DDT) | 4.3 | 4.3 | 0.001 | 0.00059 |
| DICHLOROETHANE, 1,1 | 0.55 (2.1) | 1.9 (2.1) | 47 | - |
| DICHLOROETHANE 1,2 | 0.034 (0.72) | 0.12 (3.0) | 420 (910) | 99 |
| DICHLOROETHYLENE, 1,1 | 0.018 (0.028) | 0.062 (0.12) | 9.6 (25) | 3.2 |
| DICHLOROETHYLENE, Cis 1,2 | 2.7 (16) | 7.7 (18) | 590 | - |
| DICHLOROETHYLENE, Trans 1,2- | 5.3 (16) | 15 (38) | 590 | - |
| DICHLOROPHENOL, 2,4- | 3.0 | 3.0 | 3.0 | - |
| DICHLOROPROPANE, 1,2- | 0.049 (0.50) | 0.17 (2.1) | 100 | 39 |
| DICHLOROPROPENE, 1,3 | 0.055 (0.090) | 0.19 (0.38) | 65 (244) | - |
| DIELDRIN | 0.002 | 0.002 | 0.0019 | 0.00014 |
| DIETHYLPHTHALATE | 0.070 | 0.070 | 3.0 | - |
| DIMETHYLPHTHALATE | 0.070 | 0.070 | 3.0 | - |
| DIMETHYLPHENOL, 2,4- | 0.74 | 0.74 | 110 | - |
| DINITROPHENOL 2,4 | 0.42 | 0.42 | 150 | - |
| DINITROTOLUENE, 2,4- | 1.7 | 1.7 | 230 | 9.1 |
| DIOXIN / FURAN (ng TEQ /g soil) | 0.00015 | 0.0015 | <0.00001 | 0.000000014 |
| ENDOSULFRAN | 0.005 | 0.005 | 0.0087 | - |
| ENDRIN | 0.0006 | 0.0006 | 0.0023 | - |
| ETHYLBENZENE | 24 | 24 | 290 | - |
| FLUORANTHENE | 60 | 60 | 8.1 | - |
| FLUORENE | 5.1 | 5.1 | 3.9 | - |
| HEPTACHLOR | 0.013 | 0.013 | 0.0036 | 0.00021 |
| HEPTACHLOR EPOXIDE | 0.014 | 0.014 | 0.0036 | 0.00011 |
| HEXACHLOROBENZENE | 9.0 | 9.0 | 3.7 | 0.00077 |
| HEXACHLOROBUTADIENE | 46 | 46 | 9.3 | - |
| HEXACHLOROCYCLOHEXANE (gamma) LINDANE | 0.049 | 0.049 | 0.08 | 0.063 |
| HEXACHLOROETHANE | 41 | 41 | 12 | 8.9 |
| INDENO(1,2,3-cd)PYRENE | 12 | 72 | 0.27 | 0.049 |
| LEAD | 1000 | 1000 | 3.2 | - |
| MERCURY | 160 | 160 | 0.012 | 0.051 |
| METHOXYCHLOR | 19 | 19 | 0.03 | - |
| METHYLENE CHLORIDE | 0.89 (4.2) | 3.1 (18) | 2200 | 1600 |
| METHYL ETHYL KETONE | 13 | 13 | 14000 | - |
| METHYL ISOBUTYL KETONE | 3.8 | 3.8 | 170 | - |
| METHYL MERCURY | 33 | 33 | 0.003 | - |
| METHYLNAPHTHALENE, 2-(1-) | 0.25 | 0.25 | 2.1 | - |
| METHYL TERT BUTYL ETHER | 1.0 | 1.0 | 1800 | - |
| MOLYBDENUM | 2500 | 2700 | 240 | - |
| NAPHTHALENE | 1.7 (4.9) | 4.9 | 24 | - |
| NICKEL (soiluable salts) | 1000 | 1000 | 8.2 | - |
| PENTACHLOROPHENOL | 42 | 42 | 7.9 | - |
| PHENANTHRENE | 11 | 11 | 4.6 | - |
| PHENOL | 39 | 39 | 2560 | - |
| POLYCHLORINATED BIPHENYLS (PCBs) | 5.6 | 5.6 | 0.014 | 0.00017 |
| PYRENE | 55 | 55 | 0.40 | - |
| SELENIUM | 2500 | 2700 | 5.0 | - |

**TABLE D. *SUBSURFACE SOIL (> 3m bgs) AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| CHEMICAL | *SUBSURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|-----------------------------|--|---|--|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| SILVER COMPOUNDS | 2500 | 2700 | 0.12 | - |
| STYRENE | 17 | 17 | 100 | - |
| TETRACHLOROETHANE, 1,1,1,2- | 14 | 14 | 930 | - |
| TETRACHLOROETHANE, 1,1,2,2- | 0.024 (2.0) | 0.093 (6.4) | 420 | 11 |
| TETRACHLOROETHYLENE | 0.15 (1.1) | 19 | 120 | 8.85 |
| THALLIUM | 37 | 37 | 40 | 6.3 |
| TOLUENE | 8.4 | 8.4 | 130 | - |
| TPH (gasolines) | 400 | 400 | 500 | - |
| TPH (middle distillates) | 500 | 500 | 640 | - |
| TPH (residual fuels) | 1000 | 1000 | 640 | - |
| TRICHLOROBENZENE, 1,2,4 | 15 | 15 | 50 | - |
| TRICHLOROETHANE, 1,1,1 | 8.0 | 8.0 | 62 | - |
| TRICHLOROETHANE, 1,1,2- | 0.055 (2.5) | 0.19 (10) | 930 (9400) | 42 |
| TRICHLOROETHYLENE | 0.44 (2.2) | 1.5 (9.3) | 360 | 81 |
| TRICHLOROPHENOL, 2,4,5- | 0.18 | 0.18 | 11 | - |
| TRICHLOROPHENOL, 2,4,6- | 230 | 230 | 970 | 6.5 |
| VANADIUM | 2500 | 3700 | 19 | - |
| VINYL CHLORIDE | 0.011 (0.011) | 0.040 (0.040) | 4.9 (782) | 525 |
| XYLENES | 1.0 | 1.0 | 13 | - |
| ZINC | 2500 | 5000 | 23 | - |

**TABLE D. *SUBSURFACE SOIL (> 3m bgs) AND GROUNDWATER
RISK-BASED SCREENING LEVELS (RBSLs)
(Groundwater IS NOT a Current or Potential Source of Drinking Water)**

| | *SUBSURFACE SOIL RBSLs | | GROUNDWATER RBSLs | |
|--|--|---|--|---|
| | Residential Land Use Permitted (mg/kg) | Industrial/ Commercial Land Use Only (mg/kg) | Drinking Water Resource NOT Threatened (ug/L) | Elevated Threat To Surface Water (ug/L) |
| CHEMICAL | | | | |
| Electrical Conductivity (mS/cm, USEPA Method 120.1 MOD) | not applicable | not applicable | no criteria | no criteria |
| Sodium Absorption Ratio | not applicable | not applicable | no criteria | no criteria |

Notes:

Source of soil RBSLs: Refer to Tables D-1 and D-2 in Appendix 1.

Source of groundwater RBSLs: Refer to Table F-2 Appendix 1.

Category "Residential Land Use Permitted" based on residential land-use scenario.

Subsurface soil greater than 3 meters (approximately 10 feet) below ground surface.

*Subsurface RBSLs may be applicable to shallower soils provided institutional controls are put in place to maintain an adequate cap and provide proper management of soil if exposed in future (see Section 2.5).

Soil RBSLs intended to address human health, groundwater protection, indoor air and nuisance concerns under a construction/trench worker exposure scenario for direct contact and noted land-use scenarios for indoor air impacts. Refer to appendices for summary of RBSL components.

Groundwater RBSLs intended to be protective of surface water quality, indoor-air impacts and nuisance concerns.

Value in parentheses applicable if vadose zone soils are predominantly fine-grained, silty, clayey loams (<20% sand-size (0.075mm) or larger material - i.e. ≥80% of soil material will pass through 200 mesh sieve).

Category "Elevated Threat To Surface Water" screening levels address potential long-term impacts to surface water bodies and bioaccumulation concerns in aquatic organisms potentially consumed by humans. Not addressed in soil RBSLs.

TPH - Total Petroleum Hydrocarbons. See Appendix 1, Chapter 4 for discussion of different TPH categories.

ATTACHMENT F

HISTORICAL SOIL GAS SURVEY ANALYTICAL RESULTS

Appendix Tables

HARDING LAWSON ASSOCIATES/GRAND AVENUE/OAKLAND, CALIFORNIA

| Sample | Depth | Date | Benzene (ug/l) | Toluene (ug/l) | Ethyl Benzene (ug/l) | Xylenes (ug/l) | Total Hydroc. (ug/l) |
|--------|-------|-------|-------------------|-------------------|----------------------------|-------------------|----------------------------|
| Air | | 09/21 | <0.8 | <0.8 | <0.9 | <0.9 | <0.8 |
| SG-01 | 3' | 09/21 | <0.8 | <0.8 | <0.9 | <0.9 | <0.8 |
| SG-01 | 6' | 09/21 | 0.4 | 0.4 | <0.2 | 0.4 | 2 |
| SG-02 | 3' | 09/21 | 320 | 280 | 120 | 23 | 1,400 |
| SG-04 | 4' | 09/21 | 86,000 | 40,000 | 26,000 | 3,300 | 360,000 |
| SG-05 | 2' | 09/21 | 42,000 | 8,600 | 86 | 86 | 54,000 |
| SG-06 | 4' | 09/21 | <0.8 | <0.8 | <0.9 | <0.9 | <0.8 |
| OB-1 | | 09/21 | 7,700 | 1,400 | 260 | <9 | 14,000 |
| OB-2 | | 09/21 | 5,600 | 320 | 180 | <9 | 5,800 |
| OB-3 | | 09/21 | 5,600 | 3,000 | 120 | <9 | 32,000 |
| OB-4 | | 09/21 | 3,600 | 780 | 61 | <9 | 5,400 |
| Air | | 09/21 | <0.8 | <0.8 | <0.9 | <0.9 | <0.8 |

Notations:

I interference with adjacent peaks
 NA not analyzed

Analyzed by K. Tolman

Checked by R. Sheidrake

Approved by *[Signature]*

Tracer Research Corporation



HARDING LAWSON ASSOCIATES/GRAND AVENUE/OAKLAND, CALIFORNIA

| Sample | Depth | Date | Benzene (ug/l) | Toluene (ug/l) | Ethyl Benzene (ug/l) | Xylenes (ug/l) | Total Hydroc. (ug/l) |
|--------|-------|-------|-------------------|-------------------|----------------------------|-------------------|----------------------------|
| Air | | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-08 | 5' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-09 | 4' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-10 | 4' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-11 | 3.5' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-12 | 4' | 09/28 | 38,000 | 16,000 | 180 | 170 | 250,000 |
| SG-13 | 3' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | 32 |
| SG-14 | 4' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-15 | 3' | 09/28 | 300,000 | 90,000 | 27,000 | 22,000 | 1,400,000 |
| SG-16 | 4' | 09/28 | 120 | 63 | 14 | 14 | 420 |
| SG-17 | 4' | 09/28 | <0.4 | <0.4 | <0.5 | <0.4 | <0.4 |
| SG-18 | 4' | 09/28 | <8 | <7 | <9 | <9 | <8 |

Notations:

I interference with adjacent peaks
 NA not analyzed

Analyzed by K. Tolman

Checked by R. Sheldrake

Proofed by *S. Taplan*

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