SUPPLEMENTAL SITE INVESTIGATION: ASSESSMENT AND REMEDIAL INVESTIGATION OF HYDROCARBON-AFFECTED SOIL AND GROUND WATER

Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California

Project No. 30-0065

Prepared for:

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PART I INTRODUCTION

1.0 SCOPE AND PURPOSE OF WORK

Alton Geoscience was retained by Mobil Oil Corporation to conduct additional remedial and characterization activities at Former Mobil Station 04-H6J, 1024 Main Street, Pleasanton, California, based upon the results and recommendations of the Phase II Site Investigation Report and Remedial Planning study submitted in June 1991.

This supplemental investigation was performed to: (1) determine the nature and extent of the hydrocarbon-affected soil and ground water beneath the site, (2) and develop an appropriate course of action for remediation.

The scope of work for this phase of the investigation involved the following tasks:

- Review documents on file with Zone 7, and obtain the necessary permits for conducting subsurface exploration.
- Perform a geotechnical survey consisting of cone penetrometer tests (CPT) for subsurface evaluation of sediment types and hydrocarbon-affected groundwater using a hydropunch tool.
- Excavate beneath the location of the former pump islands to remove hydrocarbon-affected soil and collect soil samples for chemical analysis.
- Drill one soil boring (SB-15) and install one additional monitoring well (MW-9/SB-14) inside the station building to assess the presence or absence of hydrocarbon-affected soil and ground water beneath the building.
- Conduct aquifer testing to characterize the aquifer beneath the site.
- Analyze data collected from the above tasks and prepare a technical report presenting field activities, laboratory results, findings and conclusions.

Investigative activities were conducted in accordance with regulatory requirements of the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) and the Alameda County Flood Control and Water Conservation District, Zone 7 (Zone 7).

2.0 SITE DESCRIPTION

Former Mobil Oil Service station 10-H6J is located in the northeast corner of the intersection of Main and Stanley Streets in Pleasanton, California. The properties adjoining the site to the north and east are the Western Pacific Railroad right-of-way, and residential property, respectively. To the west across Main Street are small businesses. To the south is a Unocal Service station which has recently been closed. A sensitive receptors survey was conducted in October 1991 and is included with the Project Background in Appendix A.

The site is at an elevation of approximately 348 feet above mean sea level (msl), as shown in Figure 1, Site Vicinity Map. Approximately 250 feet south of the site is the Arroyo Valle, an intermittent stream that flows approximately east-west. This stream accepts discharged process water from Kaiser Sand and Gravel, a large sand and gravel operation, located approximately 2.5 miles to the east. Several large ponds used by Kaiser and other gravel plants for water storage are shown in Figure 1. A discussion of the effects these features may have on the ground water gradient beneath the site is presented in Part II, Section 2.3.

There are 3 municipal water supply wells within 1/2 mile of the site. Monitoring wells maintained by the City of Pleasanton are located approximately 250 feet to the south of the site. A Site Plan, Figure 2, shows the locations of the CPT soundings, soil borings, monitoring wells, and hydrogeologic cross sections. The property is currently occupied by the former station building. All underground tanks and associated product piping have been removed. The locations of the former underground tanks, pump islands, associated excavations, and soil sample localities are shown in Figure 8.

As part of this investigation, Alton Geoscience reviewed the RWQCB Unauthorized Tank Release List. There are five sites listed within a 1 mile radius; two of which are within a 1/2 mile radius of the site.

- Shell Service Station, 4226 First Street, Pleasanton, approximately 1,500 feet to the southeast.
- Exxon Service Station, 349 Main Street, Pleasanton, approximately 2,000 feet to the south.
- Whalen Construction, 4227 Pleasanton Avenue, approximately 2,800 feet to the south.
- Alameda County Fairgrounds, 4501 Pleasanton Avenue, approximately 3,000 feet to the south.
- Reeve Trucking, Valley Avenue, approximately 5,000 feet to the northeast.

Based on a review of the case files for each of the above sites, it does not appear that any

offsite migration of petroleum hydrocarbons from these sites has impacted or could impact subsurface soil and ground water at the former Mobil Oil service station. The recently closed Unocal service station, south of the site, is not listed on the RWQCB List of Unauthorized Tank Releases. In May 1992, Unocal removed underground storage tanks and associated piping, however, no public disclosure of findings has been made.

3.0 REGIONAL GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology

The site is located within the Amador Subbasin of the Livermore Valley Ground Water Basin. The lithologic units of the Livermore Valley Basin consist primarily of unconsolidated to semiconsolidated Quaternary sediments. These sediments are predominantly stream channel, fluvial and alluvial deposits. These deposits are generally gravels, sands, clays, and silts. Stream channel deposits in this sequence, although highly permeable, are discontinuous and are not the major water-bearing sediments in the Livermore Valley Basin. Alluvium and alluvial fan deposits are the major water-bearing sediments of the basin and occur at approximately 90 feet below grade. The Amador Subbasin is structurally bounded by the Livermore fault to the east and by the Pleasanton fault to the west.

3.2 Regional Hydrogeology

The main surface drainages of the Amador Subbasin are the Arroyo Valle and the Arroyo Mocho, both of which flow into the Arroyo de la Laguna, which is on the western edge of the subbasin.

Ground water in the Amador Subbasin occurs under confined and unconfined conditions. Ground water in the region is generally unconfined in the shallower deposits. Zone 7 characterizes the deeper water-bearing zones as semi-confined, and interprets the major water-bearing zone beneath the subbasin as occurring at approximately 90 feet below grade (fbg). Zone 7 also interprets the regional ground water gradient as westerly to northerly (Zone 7, 1989).

The active production wells maintained by the City of Pleasanton are completed with total depths ranging from 151 to 647 fbg, with a depth to water of approximately 90 fbg as reported by Zone 7. Production rates of existing wells in the Amador Subbasin range from approximately 42 to 2,820 gallons per minute (gpm), (Department of Water Resources, 1974).

A monitoring well maintained by the City of Pleasanton is located approximately 250 feet to the south of the site. Depth to water measurements collected by the City of Pleasanton from this well have fluctuated by as much as 10 feet within a 72-hour period. The average

depth to water in this well is approximately 40 fbg. Ground water levels in the monitoring wells drilled on the former Mobil Oil site also fluctuate significantly over a relatively short time period. A detailed discussion of these fluctuations and the possible cause is presented in Part II, Section 2.3.

PART II SUBSURFACE INVESTIGATION

1.0 FIELD ACTIVITIES AND PROCEDURES

1.1 Cone Penetrometer Test Survey

Between August 14 and 21, 1991, Alton Geoscience supervised EarthTec Incorporated during a geophysical survey using a CPT. Nine CPT soundings were conducted; three offsite and six onsite. Ground water samples were collected from eight of the CPT soundings using a hydropunch tool. Ground water samples collected were analyzed for Total petroleum hydrocarbons as gasoline (TPH-G) with benzene, toluene, ethylbenzene and total xylenes (BTEX) distinction. Analysis of the water samples detected concentrations of both TPH-G and BTEX constituents. Pore pressure dissipation tests were also conducted; one in Sounding PCPT-1 at 46.3 fbg, and two in PCPT-3 at 50.1 and 64.7 fbg. A further description of geophysical methods used is presented in Appendix B, including presentation of CPT data logs. Laboratory analysis of the ground water samples collected during the geophysical survey are presented in Table 1.

1.2 Exploratory Trench Excavations

On October 24 and 25, 1991, Alton Geoscience supervised Balch Petroleum during trenching beneath the location of the former pump islands and product lines. The trenches were approximately 12 to 14 feet deep and 4 feet wide. The eastern and western trenches were approximately 25 and 40 feet in length, respectively. Thirty four soil samples were collected at varying depths for analysis to determine the source and extent of hydrocarbon release. Analysis of the soil samples for TPH-G with BTEX distinction revealed the presence of hydrocarbon-affected soil beneath the location of the former pump islands. Laboratory results of soil analysis are presented in Table 2 and Figure 8. The trenches were subsequently backfilled with clean engineered fill in December 1991 by Balch Petroleum.

1.3 Soil Borings, Sampling, and Monitoring Well Construction

On January 21, 30 and 31, 1992, Alton Geoscience supervised drilling of an additional soil boring, SB-15, and Monitoring Well MW-9(SB-14) inside the building. Soil samples were collected from both borings in an effort to determine the presence or absence of hydrocarbon-affected soil beneath the station building. Soil boring SB-15 was drilled to a depth of 46 fbg using 8-inch-diameter hollow-stem augers, and was subsequently backfilled from the bottom to the surface with neat cement. Soil Boring SB-14 was drilled to a depth

of 55 fbg using 11 3/4-inch-diameter hollow-stem augers and was converted to Monitoring Well MW-9. Monitoring Well MW-9 was constructed with a screened interval from 25 to 55 fbg using 4-inch-diameter, Schedule 40 PVC with 0.010-inch slots. Alton Geoscience general field procedures for monitoring well construction are presented in Appendix C.

Thirteen soil samples collected from the soil borings were analyzed in an effort to determine the vertical distribution of hydrocarbons beneath the building. Analytical results are summarized in Table 2. Drilling procedures and soil sampling protocol used by Alton Geoscience are presented in Appendix D.

Prior to commencement of drilling activities, permits for the monitoring well and soil boring were obtained from Zone 7. Copies of the permits and boring logs are presented in Appendix E.

1.4 Monitoring Well Development and Sampling, Wellhead Survey, and Ground Water Elevation Monitoring

Monitoring well MW-9 was developed on February 3 and 4, 1992. After being developed in accordance with the guidelines of the RWQCB, MW-9 was purged and sampled on February 9, 1992.

Monitoring Well MW-9 and Soil Boring SB-15 were surveyed by Ron Archer, Inc., a California-registered surveyor, on February 3, 1992. Top of casing elevations were measured in reference to City of Pleasanton Benchmark P-1257, with an elevation of 351.99 feet above mean sea level (msl). Alton Geoscience general field procedures for monitoring well sampling, including field survey forms and wellhead survey, are presented in Appendix F.

Ground water levels in all monitoring wells were measured from a permanent reference mark at the top of the PVC casing using an electronic sounder with an accuracy of 0.01 foot. A summary of ground water elevation measurements is presented in Table 2.

2.0 SITE GEOLOGY AND HYDROGEOLOGY

2.1 Site Geology

Soil borings drilled during this and previous investigations indicate sediment types beneath the site are heterogeneous. Sediment types encountered between the interval of 5 and 35 fbg are predominantly silts and clays. Between the interval of 35 and 65 fbg, sediment types are generally coarser grained sands and gravelly sands. The sediments between this interval appear to be the water-bearing strata beneath the site. Interpretation of the CPT data and boring logs indicate there is some continuity of strata beneath the site. Hydrogeologic cross sections, as shown in Figures 4, 5, 6, and 7, were developed based on boring logs and CPT data log printouts.

2.2 Site Hydrogeology

Subsurface investigations and ground water monitoring conducted by Alton Geoscience indicate that there are two water-bearing zones beneath the site. For purposes of this discussion, these zones are designated "shallow aquifer" and "deep aquifer". The shallow aquifer occurs between approximately 15 and 25 fbg. The deep aquifer is encountered at approximately 35 fbg. Monitoring Well MW-9, which was drilled to a depth of 65 fbg (the deepest well at the site), is completed in sediments interpreted to be part of the deeper aquifer. Ground water monitoring data collected since April 1990 are presented in Table 2.

Ground water levels were continuously monitored between August 26 and November 18, 1991, in Monitoring Wells MW-4 and MW-6 using a data logger and pressure transducer. A variation in ground water elevations of up to 4 feet was observed in a 5-day period. The hydrographs are presented in Appendix G.

Periodic measurements of ground water elevations in the monitoring wells using an electronic sounder indicated ground water levels were changing. In addition, ground water monitoring conducted by Zone 7, in Monitoring Well 3S/1E 16P 5 (located approximately 250 feet south of the site) has indicated significant changes. A hydrograph prepared by Zone 7 is presented in Appendix I.

The shallow aquifer, in which Monitoring Wells MW-3, MW-5, MW-7, and MW-8 are completed, has been intermittently dry since August 1991. Historically, monitoring of these wells had also indicated fluctuations in ground water levels. Since the ground water gradient appears to vary, a ground water gradient map has not been generated for this study. In general the ground water gradient in the deeper water-bearing zone is towards the north. The ground water gradient in the shallow water-bearing zone can vary from a northerly to a southerly direction.

2.3 Possible Offsite Influence on Ground Water Elevation and Gradient Changes

Approximately 250 feet to the south of the Mobil site, is the Arroyo Valle, an intermittent stream. A large sand and gravel operation, owned by Kaiser Sand & Gravel, discharges water into Arroyo Valle upstream of the Mobil site, approximately 1.5 miles away. Mean daily volumes of water discharged into the Arroyo Valle are reported by Kaiser Sand and Gravel to Zone 7 on a monthly basis.

Kaiser relies solely on large ponds for process water used during plant operations. These ponds are excavations up to 40 feet deep. Up to 17,000 gallons per minute (gpm) are pumped directly from the ponds into the plant. Excess water is discharged into Arroyo Valle or back into one of the storage ponds. For these reasons, water is constantly being transferred between ponds. For conservation reasons, Kaiser tries to minimize the amount of water discharged to Arroyo Valle. Water usage by Kaiser varies each day and since the

plant operates year-round, water discharge amounts are difficult to determine.

Locations of a United States Geological Survey (USGS) gauging station, Zone 7 monitoring wells and Kaiser discharge outlets and ponds are shown in Figure 1.

3.0 ANALYTICAL METHODS

Analytical work performed for this phase of the investigation was performed by Sequoia Analytical Laboratory, Inc., a California-certified laboratory. Soil and ground water samples collected were properly preserved and transferred to Sequoia Analytical Laboratories following chain of custody documentation. Chemical analyses of soil and ground water samples were performed using standard test methods of the United States Environmental Protection Agency (EPA). Official laboratory reports and chain of custody documentation for soil and ground water samples are presented in Appendix H.

3.1 Analysis of Soil Samples

Soil samples were collected from trench excavations below the location of the former pump islands and from the soil boring drilled inside the station building (SB-15). Soil samples were also collected during drilling of MW-9(SB-14). Analytical results for these samples are summarized in Table 2. All soil samples were analyzed for the following:

- TPH-G using EPA Methods 8015/8020.
- BTEX using EPA Methods 8015/8020.

Selected soil samples were analyzed using the following methods:

- Total petroleum hydrocarbons as diesel (TPH-D), using EPA Method 8015 modified.
- Halogenated volatile organic compounds (HVOC) using EPA Method 5030/8010.
- Total oil and grease (TOG) using EPA Methods 418.1 (IR) and 413.2 (IR).
- Metals using EPA Methods 6010, 7060, 7196, 7481, 200.7, 239.2, 245.1, and 206.2.

- Total recoverable petroleum oil (TRPH), using EPA Method SM 5520 E&F gravimetric.
- Total organic carbon using EPA Method 415.2.
- Total lead using EPA Method 7421.

3.2 Analysis of Ground Water Samples

Ground water samples were collected from the monitoring wells on August 6, 1991 and January 8, 1992. Monitoring Well MW-9, installed January 31, 1992, was developed, purged and sampled on February 3 and 4. The well was purged and sampled in accordance with the guidelines of the RWQCB, and Zone 7.

Ground water samples were also collected during the geophysical survey between August 14 and 21, 1991, using a cone penetrometer and hydropunch. Analytical results for these ground water samples are presented in Table 1. Water samples were analyzed for the following:

- TPH-G using EPA Methods 8015/8020
- BTEX using EPA Methods 8015/8020

Additionally, selected water samples were analyzed for the following:

- HVOC using EPA Method 5030/8010
- TPH-D using EPA Method 8015 modified.
- Organic lead using EPA Method 7421

4.0 DISCUSSION OF ANALYTICAL RESULTS

The analytical results from soil and ground water sampling at the site are summarized below.

4.1 Hydrocarbon Distribution in Soil

- Elevated hydrocarbon concentrations were detected in the shallow subsurface to the south of the western dispenser island. TPH-G concentrations of 4000 and 630 ppm were detected at depths of 8 and 13 fbg in sample locality PS-8 (see Figure 8).

- Elevated hydrocarbon concentrations were detected in shallow subsurface soil beneath the former product lines 20 feet south of the eastern dispenser island and west of the former tank cavity in sample locality PS-16. 1,500 and 2,900 ppm TPH-G was detected at 8 and 13 fbg.

- Elevated hydrocarbon concentrations were detected in deeper subsurface soil samples collected from the capillary fringe during drilling of SB-15 inside the station building. Concentrations of TPH-G ranging from 6.2 ppm to 4100 ppm were detected between 26 and 38 fbg. Analysis of soil samples collected from SB-15 between 25 and 37.5 fbg also detected concentrations of 1,2-dichloroethane ranging from 23 to 390 ppm.

1, 2 - DCA

- Hydrocarbons were not detected beneath either dispenser island in shallow subsurface to 15 fbg.

- Hydrocarbons were also not detected in soil samples collected from the shallow subsurface or the capillary fringe from MW-9.

- Analysis of selected soil samples collected from SB-15 and MW-9 did not detect TRPH, organic lead, or TOG at or above reported detection limits.

4.2 Hydrocarbon Distribution in Ground Water

- Water samples collected from CPT Soundings CPT-3, 4, and 7 contained TPH-G concentrations of 88, 360, and 670 ppb.

- Water samples collected from CPT Soundings CPT-1, 6, and 8 contained low concentrations of hydrocarbons.

- Hydrocarbons were not detected in water samples collected from CPT Soundings CPT-2 and 9B.

- During the January 8, 1992 sampling event, all wells sampled contained hydrocarbons. The highest hydrocarbon concentrations were detected in MW-2, which was determined to have 0.02 foot of free-floating liquid-phase hydrocarbons, the lowest concentrations in MW-7 containing 220 ppb TPH-G. Monitoring Wells MW-8, and MW-5 were dry. Monitoring Wells MW-3 and MW-7 contained insufficient water to sample.

- Monitoring Well MW-9, which was sampled February 4, 1992, contained elevated hydrocarbon concentrations. 16,000 ppb TPH-G was detected as were BTEX constituents (3000 ppb benzene).

- During the April 30, 1992 sampling event, all wells sampled contained hydrocarbons. The highest hydrocarbon concentrations were detected in MW-2, which contained 71,000 ppb TPH-G. Monitoring Wells MW-8, and MW-5 were dry. Monitoring Wells MW-3 and MW-7 contained insufficient water to sample.

- During the January 8, 1992 sampling event, [redacted] was determined to contain 0.02 foot of free-floating liquid-phase hydrocarbons. Prior to discovery of free-phase hydrocarbons, MW-2 had also contained elevated concentrations of hydrocarbons.

- Dissolved-phase hydrocarbons have historically been present in all wells on- and offsite.

- All monitoring wells completed in the deeper water-bearing zone contain varying hydrocarbon concentrations.

- Benzene concentrations in ground water samples collected from the monitoring wells between January 8 and February 4, 1992, and CPT points between August 14 and 21, 1991, are shown in Figure 3.

5.0 AQUIFER TESTING

5.1 Field Methods for Aquifer Testing

Two constant rate pumping tests were performed to assess the aquifer characteristics at the site for use in a feasibility study for a ground water remediation system. The pumping tests were conducted in an effort to characterize the deeper aquifer. Transducers were placed in the pumping well and selected observation wells. An Instrumentation Northwest data logger was programmed to record readings from the transducers every 15 seconds for the first 30 minutes of the test, every minute for the next hour, then every 2 minutes for the duration of the test.

Concurrent with the pumping tests, a single-channel, self-contained data logger and pressure transducer was placed in selected wells, in order to measure variations in the background water levels during the tests. Background water level measurements were also collected with the data logger between February 2 to March 9, 1992 and between April 4 through 11, 1992 the pumping tests. Discussion of field methods used by Alton Geoscience for aquifer testing and background water level measurements are presented below.

On March 2, 1992, a constant rate pumping test (Pumping Test A) was performed on MW-1, a well screened in the deeper water-bearing zone. The pump was placed in MW-1 and transducers were placed in MW-1, MW-2, MW-4 and MW-6. The depth to water in MW-5

and MW-9 was measured every 30 minutes during the test. MW-3, MW-7, and MW-8 were dry during this period. The well was pumped at 16.7 gpm for 7 hours. During the test, the water levels in MW-2 and MW-4 decreased by 0.1 and 0.11 foot. The water level in MW-9 decreased by 0.05 foot. The water level in MW-5, which is set in the shallow aquifer zone, remained constant throughout the test.

On March 3, 1992, a second test (Pumping Test B), was performed on MW-2. The pump was placed in 2-inch-diameter Well MW-2 and transducers were placed in MW-1 and MW-4. The depth to water in MW-5 and MW-9 was measured every 30 minutes during the test. The well was pumped at 6.8 gpm for 8 hours. During the test (B) the water levels in MW-1 and MW-4 decreased by 0.06 and 0.05 foot. The water level in MW-9 decreased by 0.05 foot. The water level in MW-5 remained constant at the same level recorded the previous day.

Background water levels were measured in selected wells using a self-contained data logger and pressure transducer between the dates of February 2 and March 9, 1992, and April 4 and 11, 1992. Between February 2 and March 9, 1992 the water levels in Well MW-6 varied by up to 0.18 feet. During Pumping Test A, the water levels in MW-6 rose approximately 0.01 foot during the first 2 hours of the test, then decreased approximately 0.02 foot during the remainder of the test. A similar situation is observed during Pumping Test B; the water level in MW-6 increased by 0.02 feet during the first part of the test, then decreased by 0.06 feet during the remainder of the test.

Between April 4 and 11, 1992 four transducers were placed in MW-1, MW-2, MW-6, and MW-9 to measure relative changes in water levels between the wells using a self-contained data logger and pressure transducer. It was found that both the trend and magnitude of the ground water elevation changes in MW-1, MW-2, and MW-6 were very similar. MW-9, however, appeared to show minor variations unrelated to those measured in the other wells.

Data collected during aquifer testing is presented in Appendix I and discussed below.

5.2 Discussion of Pumping Test Results

The pumping test results indicate the deeper water-bearing zone has an average transmissivity value of approximately 8 feet^2 per minute (ft^2/min) and a hydraulic conductivity value of 1.6 ft/min. The deeper water-bearing zone consists primarily of a sandy gravel to gravelly sand. Sand gravel mixtures generally have hydraulic conductivity values on the order of 0.05 to 3 ft/min (Heath, 1989).

Decreasing water levels were measured during Pumping Test A and Pumping Test B. It is not possible to determine whether the decreasing water levels in the wells are a function of a general decrease in water level in the aquifer, a change in barometric pressure or a result of pumping.

Similar behavior of the water levels during the tests suggests that water levels were generally rising during this time, and that the decreases were due to the pumping tests. However, a very similar decrease occurred March 4, when no test was performed, suggesting barometric effects or other factors may be responsible for changing water levels. The data was not adjusted for barometric effects.

Aquifer transmissivity (T) values were calculated from the unadjusted drawdown data using the aquifer testing program AQTESOLV (Geraghty and Miller 1989) to fit the data curves to a Hantush (1960) theoretical solution. The Hantush method of solution was selected based upon available hydrogeologic information and the drawdown data which indicates that the deeper water-bearing zone behaves like a leaky confined aquifer under transient flow conditions. It should be noted that if the general water levels at the site were rising during the aquifer tests, the calculated transmissivity values would underestimate the actual transmissivity of the aquifer. The calculated values of transmissivity are shown below. The values are all within the same order of magnitude.

Well ID	T(ft^2/min)	Test
MW-1	9.6	B
MW-2	6.6	A
MW-4	5.8	A
MW-4	9.8	B

5.3 Discussion of Background Water Levels

Water levels in the deeper aquifer at the site vary significantly over relatively short time periods. Variations of up to four feet have been observed over a 5 day period (Zone 7, 1989). Background water level measurements collected between April 4 and 11, 1992 indicate the trend and magnitude of water level changes in MW-1, MW-2, and MW-6 were similar. However, MW-9 appeared to show variations unrelated to those of the other wells.

It was not possible to determine whether the decrease in water level measured in MW-6 during Pumping Test A on March 2, 1992 is a function of a general decrease in water level in the aquifer, a change in barometric pressure or a result of pumping from MW-1. A similar situation was observed in MW-6 during Pumping Test B on March 3, 1992; the water level increased by 0.02 feet during the first part of the test, then decreased by 0.06 feet during the remainder of the test.

PART III CONCLUSIONS

1.0 HYDROCARBON DISTRIBUTION IN SOIL

Hydrocarbons are apparently concentrated in shallow soils near elbow junctions in the former product lines south of the western dispenser island and north of the UST cavity.

The former UST's may have been a source for the hydrocarbons as evidenced by elevated hydrocarbon concentrations in soil samples collected from the northwest corner of the UST cavity.

Hydrocarbon distribution in soil from 20 to 40 fbg, when compared to stratigraphy defined by CPT soundings, indicates hydrocarbon migration in the vadose zone may have been controlled by lenses of coarser sediments within the silty clays. The local distribution of hydrocarbons beneath the trenches south of the western dispenser island is most likely controlled by the same low permeability stratigraphy that apparently perches the shallow water-bearing zone in the vicinity of MW-5.

Hydrocarbon migration in the capillary fringe is also facilitated by the predominance of coarser sediments occurring in this interval.

The lateral extent of hydrocarbon-affected soil to 15 fbg has been assessed. The lateral extent of hydrocarbon-affected soil between 16 and 40 fbg has been approximately defined to the south of the source areas, but has not completely defined to the west of the product line trench, east of SB-15, and north of SB-7 and MW-2.

Preliminary indications are that hydrocarbon-affected soil to 15 fbg may be amenable to remediation through excavation, and to vapor extraction in the deeper subsurface. Vacuum extraction testing will be necessary to determine the viability of vapor extraction as a remedial method.

2.0 HYDROCARBON DISTRIBUTION IN GROUND WATER

The extent of the dissolved phase hydrocarbons in the shallow water-bearing zone has not been completely defined. All monitoring wells completed in the shallow water-bearing zone are dry at this time, and all wells in the shallow zone have historically contained hydrocarbons at varying concentrations.

The extent of liquid-phase hydrocarbons is restricted to within site boundaries; found only in MW-2 in January 1992.

The extent of the dissolved-phase hydrocarbons in the deeper water-bearing zone has not been completely defined. All wells completed in the deeper zone have historically contained dissolved-phase hydrocarbons at varying concentrations.

Elevated benzene concentrations in ground water appear to be contained in a northeast-southwest trend across the site, which roughly corresponds with elevated adsorbed-phase plume. Benzene concentrations in ground water samples collected from the monitoring wells between January 8 and February 4, 1992, and CPT points between August 14 and 21, 1991, are shown in Figure 3.

The high transmissivity of the aquifer material indicates that pumping water from the main aquifer may not be an efficient method of remediation. Large quantities of clean water would have to be removed to induce a capture zone.

ALTON GEOSCIENCE

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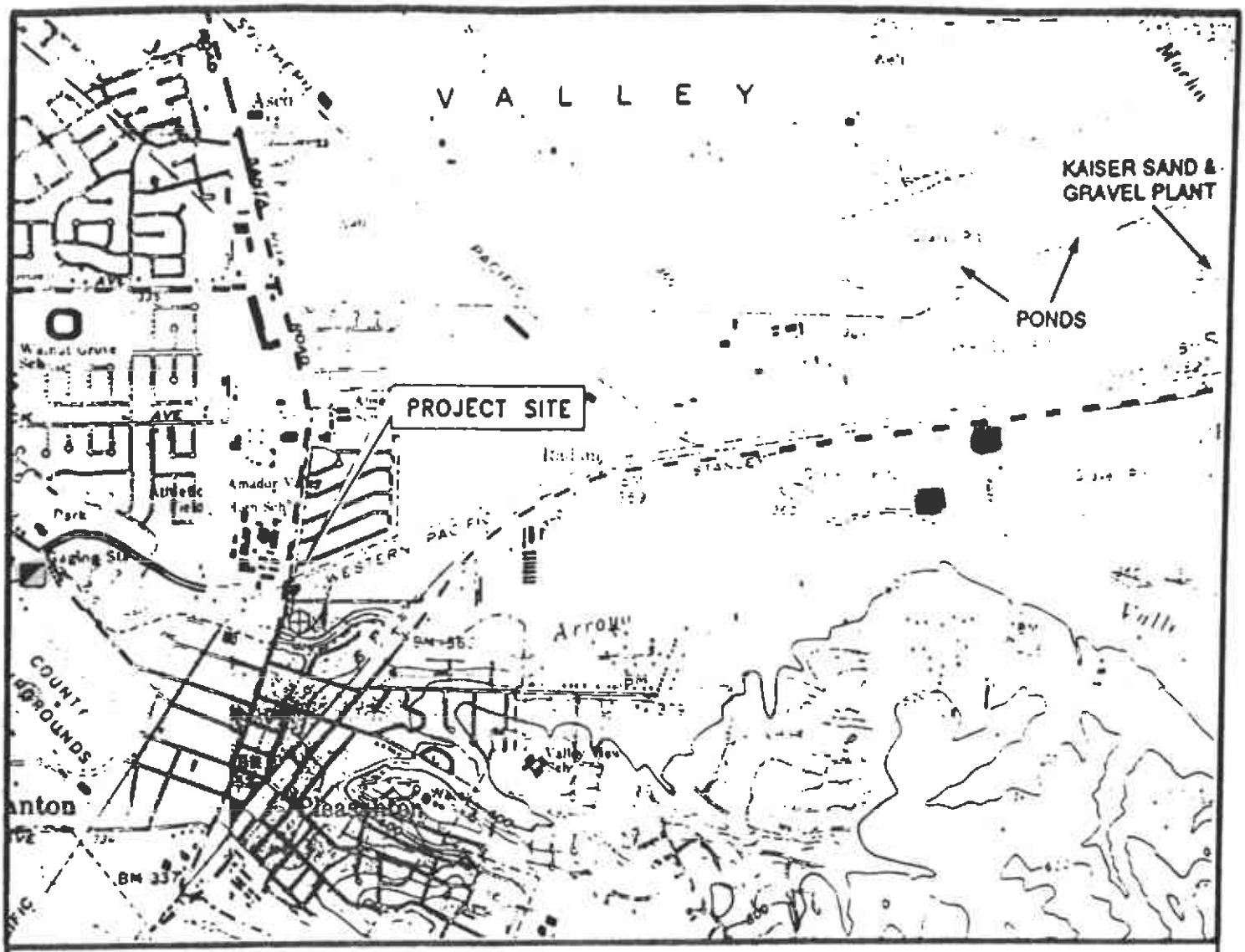

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SCALE (FEET)

LEGEND

- U.S.G.S. Guaging Station
- City of Pleasanton Monitoring Well
- Kaiser Discharge to Arroyo Valle

Source: U.S.G.S. Map
Dublin/Livermore
Quadrangles
California
7.5 Minute Series

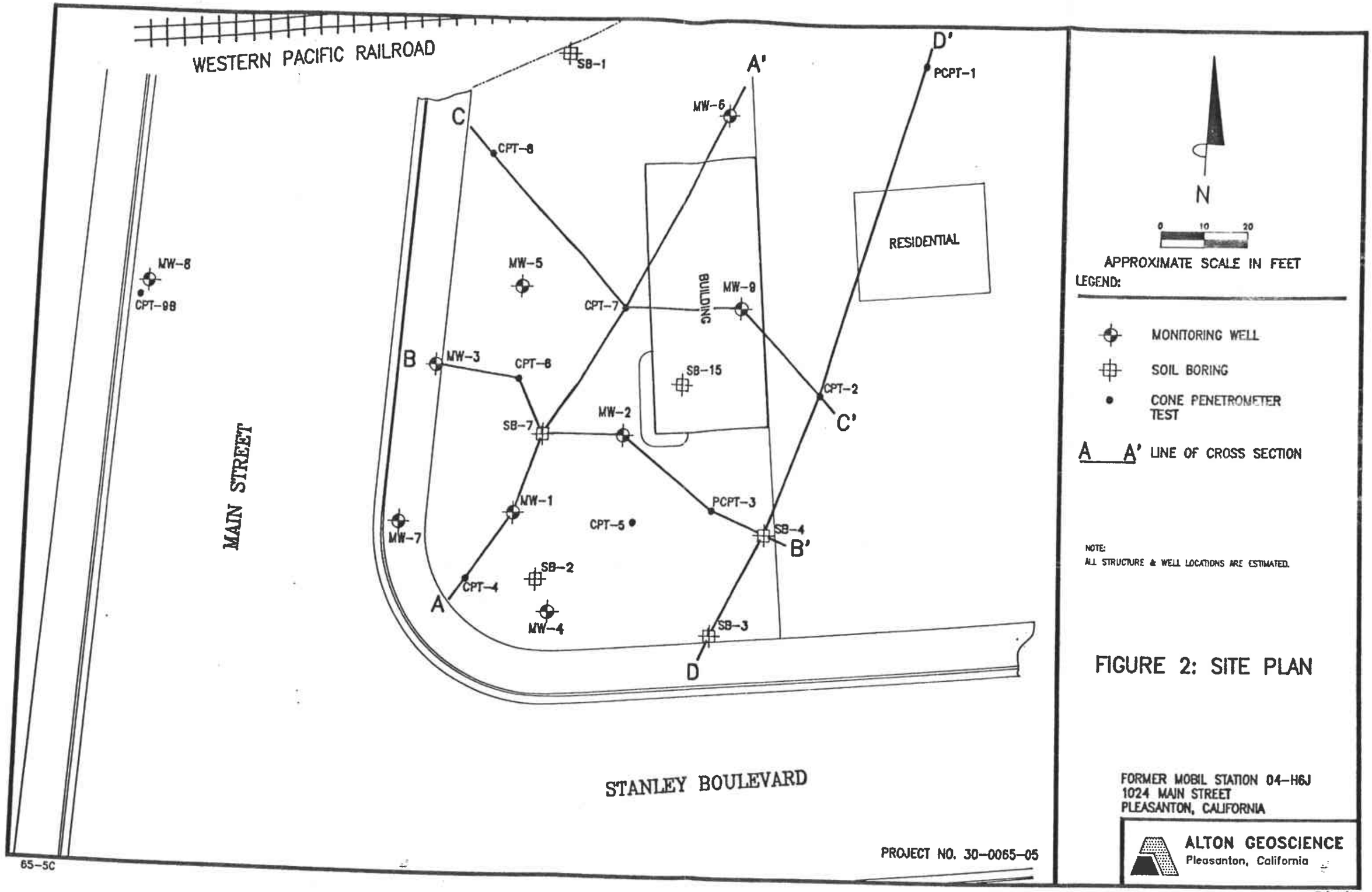
SITE VICINITY MAP

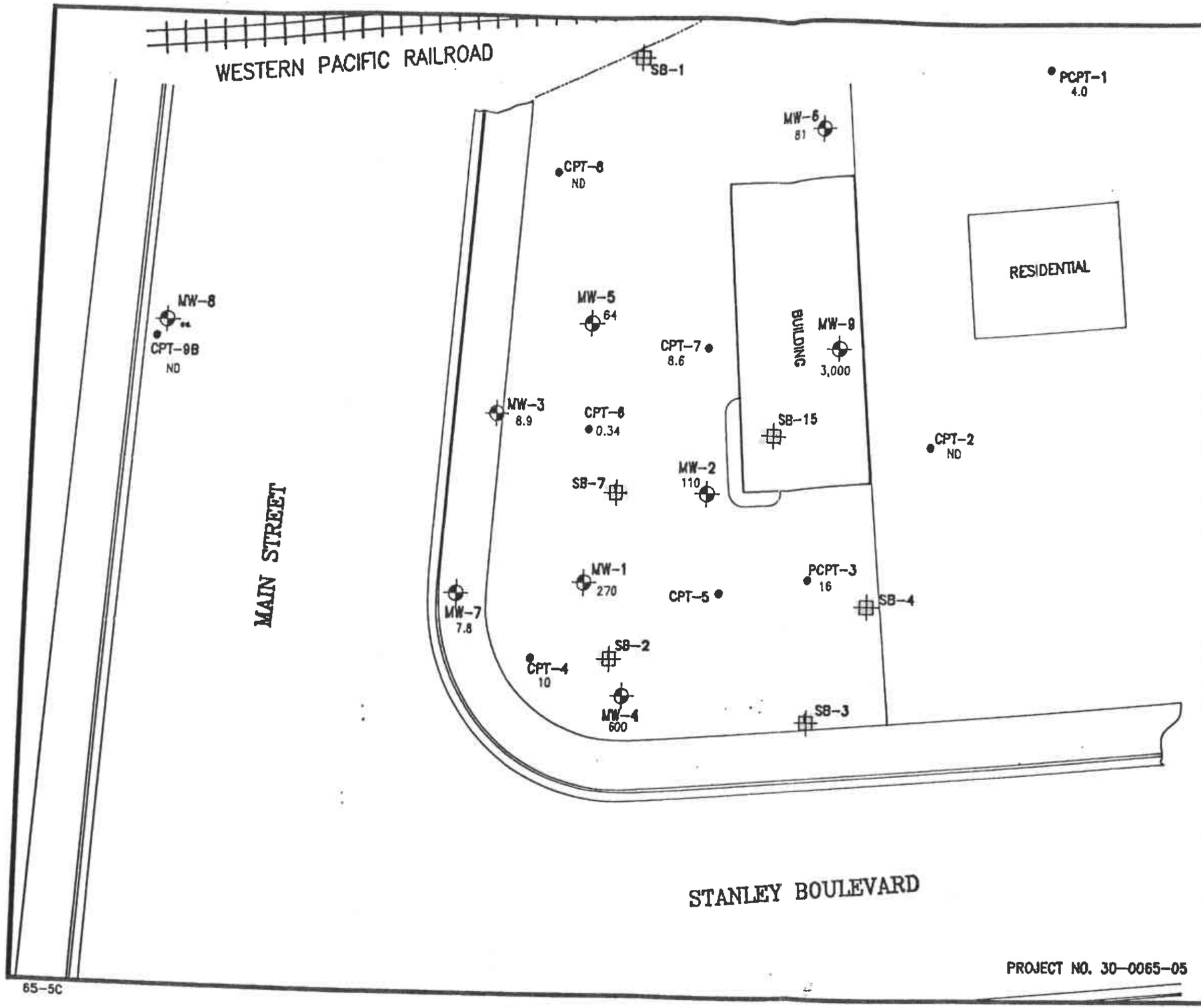
Former Mobil Station 04-H6J
1024 Main Street
Pleasanton, California

ALTON GEOSCIENCE
Pleasanton, California

Project No. 31-0065

FIGURE 1


WESTERN PACIFIC RAILROAD
MAIN STREET
STANLEY BOULEVARD
SB-1
A'
D'
PCPT-1
MW-6
C
CPT-8
MW-8
CPT-9B
MW-5
CPT-7
BUILDING
MW-9
RESIDENTIAL
B
MW-3
CPT-6
SB-15
CPT-2
C'
SB-7
MW-2
MW-1
PCPT-3
MW-7
CPT-5
SB-4
B'
SB-2
CPT-4
A
MW-4
SB-3
D
N
0
10
20
APPROXIMATE SCALE IN FEET
LEGEND:
MONITORING WELL
SOIL BORING
CONE PENETROMETER TEST
A A' LINE OF CROSS SECTION
NOTE:
ALL STRUCTURE & WELL LOCATIONS ARE ESTIMATED.
FIGURE 2: SITE PLAN
FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA
ALTON GEOSCIENCE
Pleasanton, California
PROJECT NO. 30-0065-05
65-5C
7/30/92



N

0 10 20

APPROXIMATE SCALE IN FEET

LEGEND:

- MONITORING WELL
- SOIL BORING
- CONE PENETROMETER TEST
- 0.34 BENZENE CONCENTRATIONS IN PARTS PER BILLION (ppb)
- ** WELL DRY 1/8/92
- ND NOT DETECTED AT OR ABOVE REPORTED DETECTION LIMITS

NOTE:

1. ALL STRUCTURE & WELL LOCATIONS ARE ESTIMATED.
2. BENZENE CONCENTRATIONS ARE FROM ANALYTICAL RESULTS FROM THE JANUARY 8, 1992 SAMPLING EVENT EXCEPT MW-9 WHICH WAS SAMPLED FEBRUARY 4, 1992 & CPT POINTS WHICH WERE SAMPLED BETWEEN AUGUST 14 & 21, 1992.

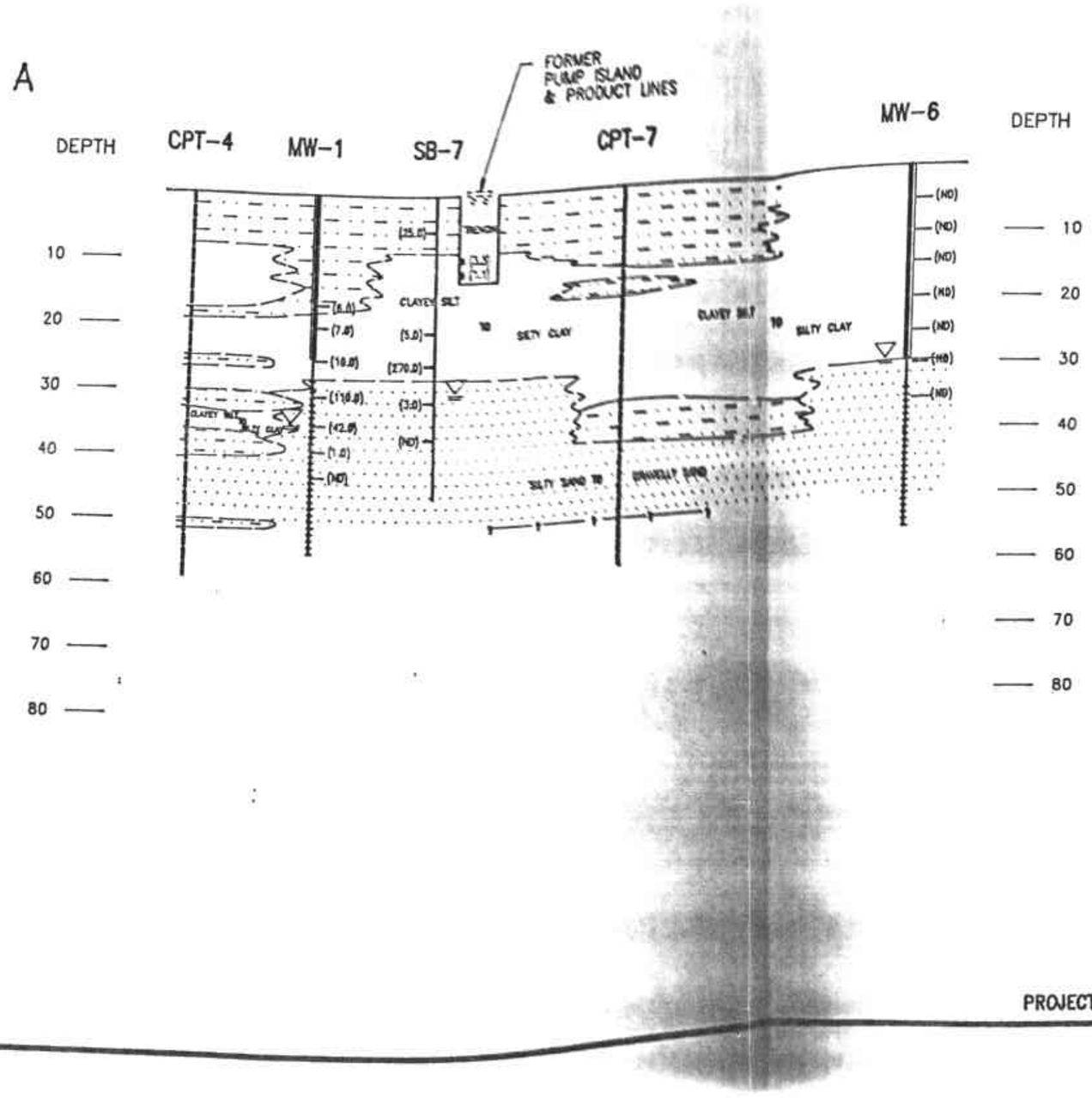
FIGURE 3: BENZENE CONCENTRATIONS IN GROUND WATER

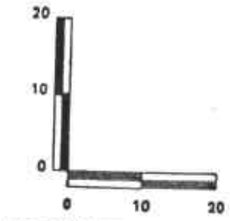
FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

ALTON GEOSCIENCE
Pleasanton, California

PROJECT NO. 30-0065-05

7/30/92





APPROXIMATE SCALE IN FEET

LEGEND:

- GROUND WATER MONITORING WELL SHOWING SEAL AND SLOTTING
- GEOLOGIC CONTACT
- WATER ENCOUNTERED DURING DRILLING
- (3.0) CONCENTRATIONS OF TPH-G IN SOIL (ppm)
- SILTY SAND TO GRAVELLY SAND
- SILT TO SANDY SILT
- CLAYEY SILT TO SILTY CLAY

FIGURE 4: HYDROGEOLOGIC CROSS SECTION A-A'

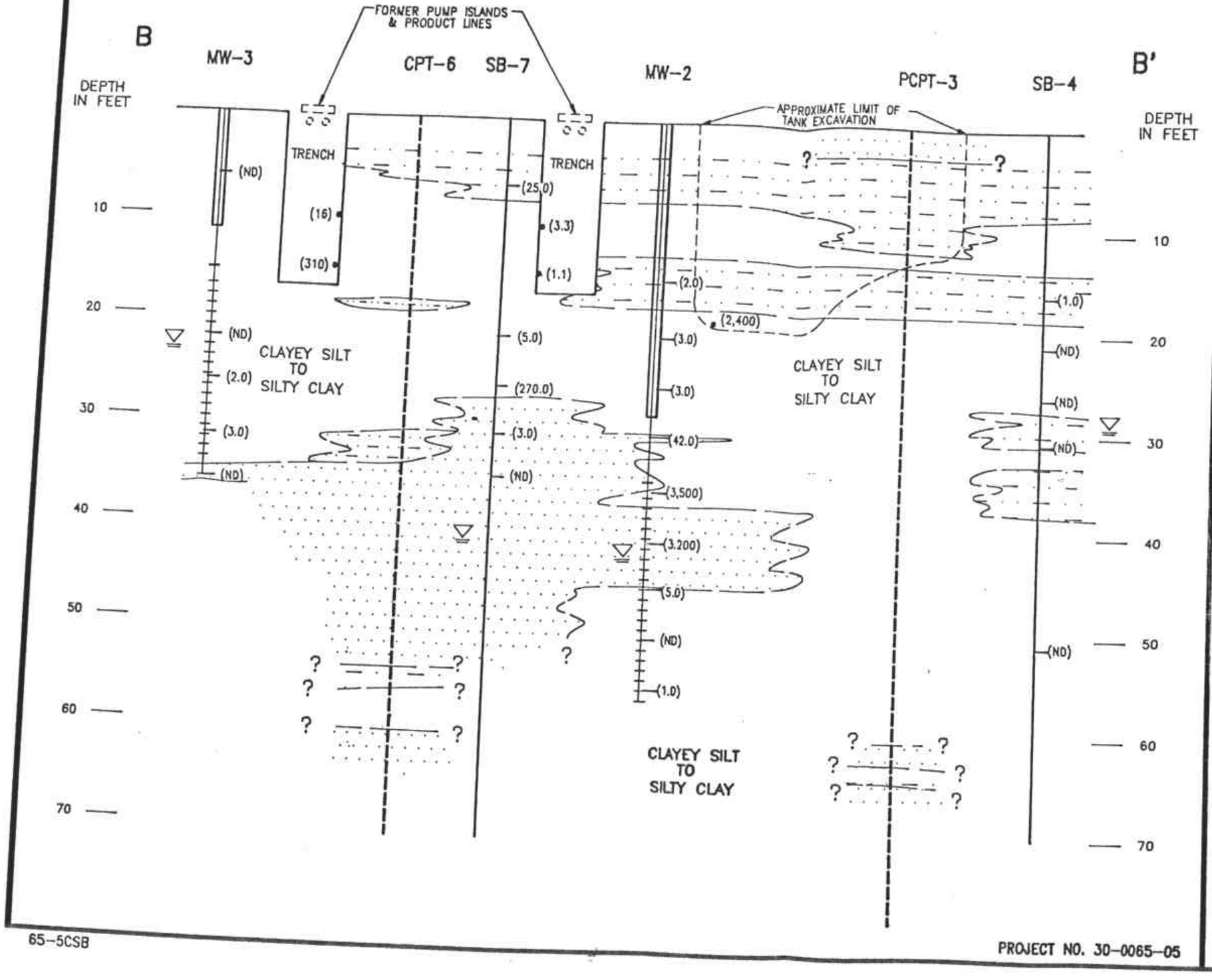
FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

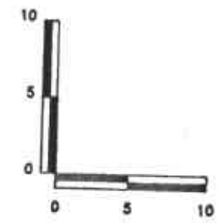
ALTON GEOSCIENCE
Pleasanton, California

PROJECT NO. 30-0065-05

65-5CSA

7/10/92





APPROXIMATE SCALE IN FEET

LEGEND:

- GROUND WATER MONITORING WELL SHOWING SEAL AND SLOTTING
- GEOLOGIC CONTACT
- WATER ENCOUNTERED DURING DRILLING
- (3.0) CONCENTRATIONS OF TPH-G IN SOIL (ppm)
- SILTY SAND TO GRAVELLY SAND
- SILT TO SANDY SILT
- CLAYEY SILT TO SILTY CLAY
- ND NOT DETECTED AT OR ABOVE REPORTED DETECTION LIMITS

FIGURE 5: HYDROGEOLOGIC CROSS SECTION B-B'

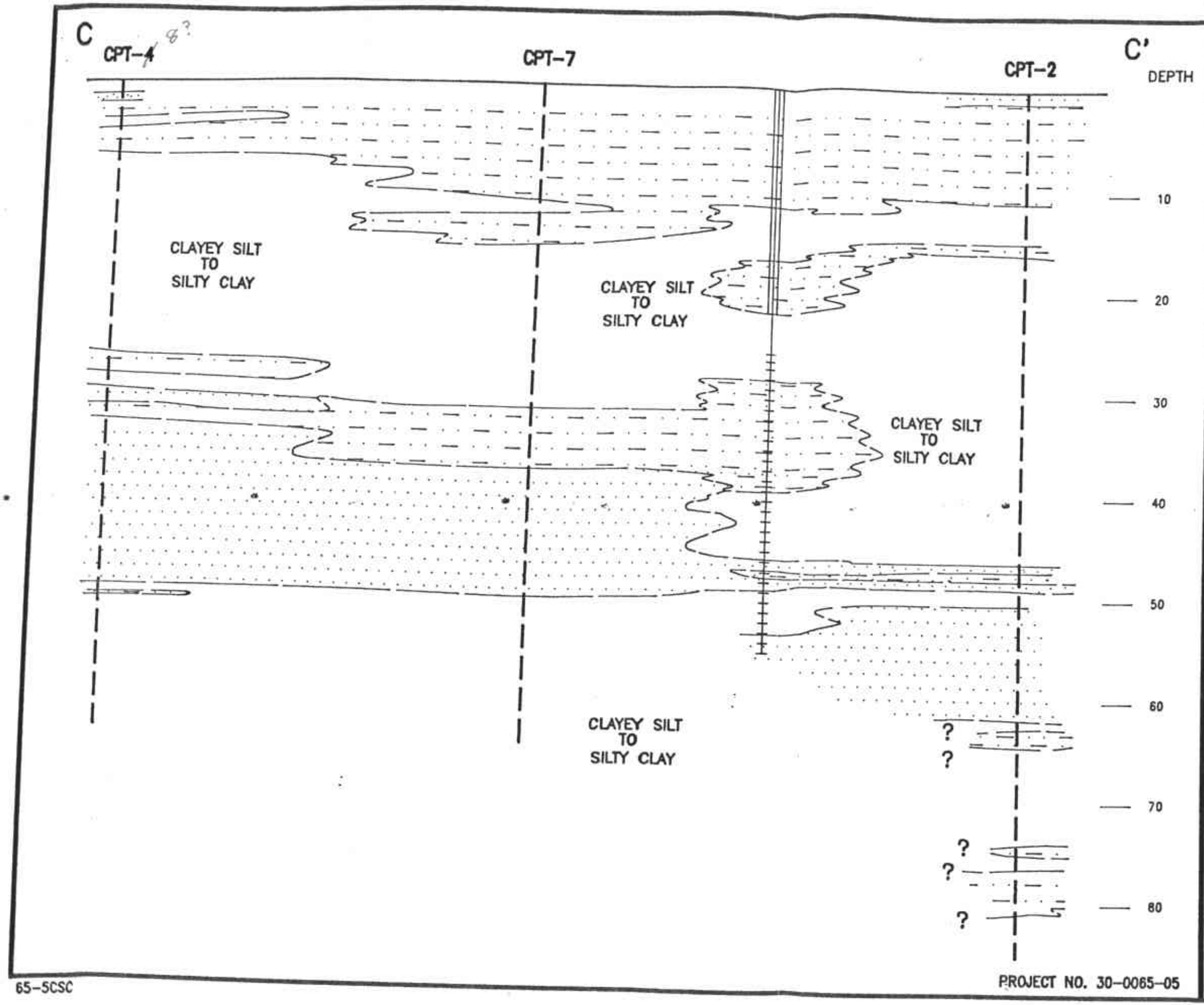
FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

ALTON GEOSCIENCE
Pleasanton, California

65-5CSB

PROJECT NO. 30-0065-05

7/30/92



10
5
0
0 5 10
APPROXIMATE SCALE IN FEET

LEGEND:

- GROUND WATER MONITORING WELL SHOWING SEAL AND SLOTTING
- GEOLOGIC CONTACT
- WATER ENCOUNTERED DURING DRILLING
- (10) CONCENTRATIONS OF TPH-G IN SOIL (ppm)
- SILTY SAND TO GRAVELLY SAND
- SILT TO SANDY SILT
- CLAYEY SILT TO SILTY CLAY

FIGURE 6: HYDROGEOLOGIC CROSS SECTION C–C'

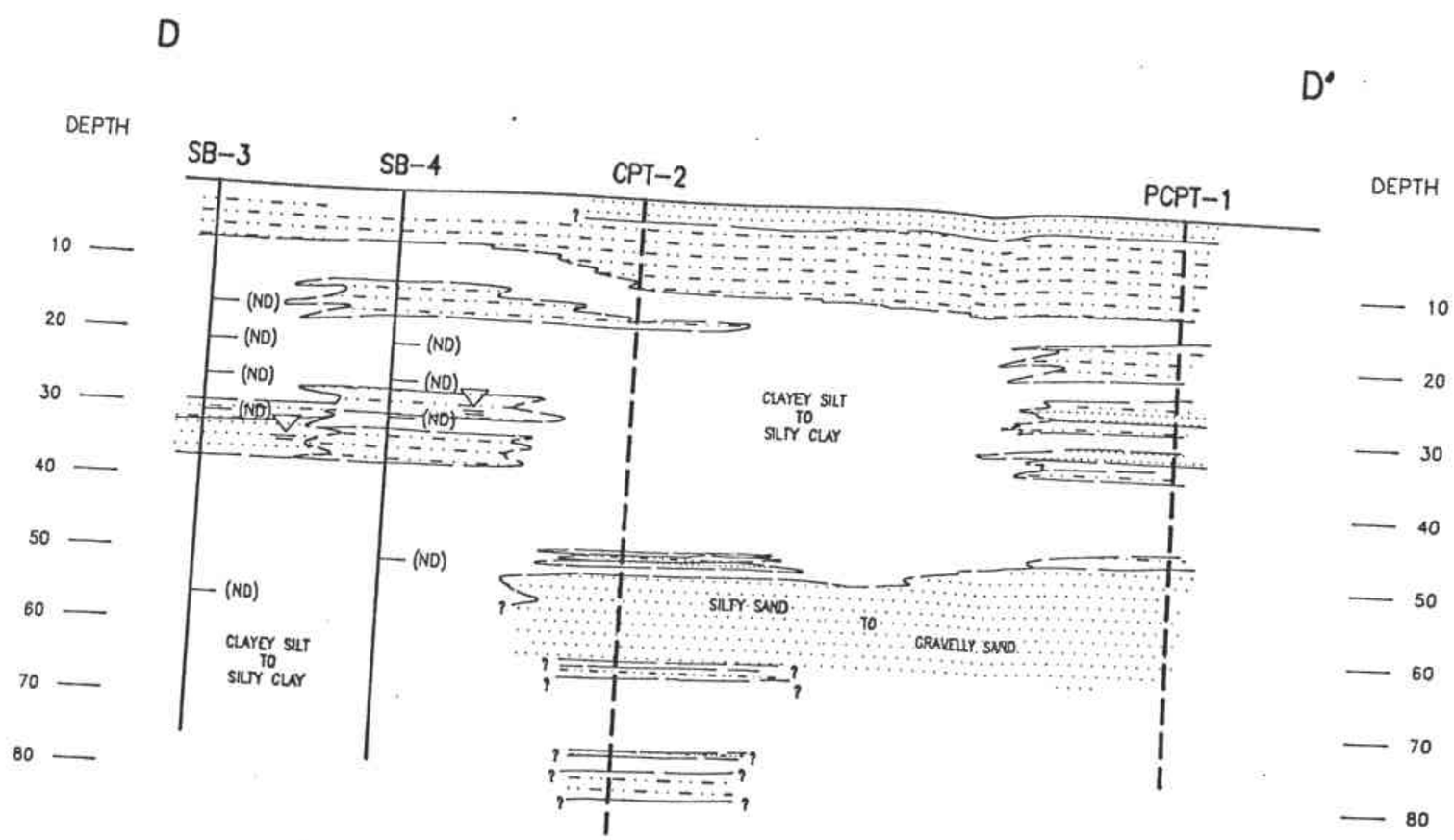
FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

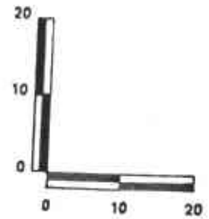
ALTON GEOSCIENCE
Pleasanton, California

PROJECT NO. 30-0065-05

65-5CSC

7/30/92





APPROXIMATE SCALE IN FEET

LEGEND:

- GROUND WATER MONITORING WELL SHOWING SEAL AND SLOTTING
- GEOLOGIC CONTACT
- WATER ENCOUNTERED DURING DRILLING
- (3.0) CONCENTRATIONS OF TPH-G IN SOIL (ppm)
- SILTY SAND TO GRAVELLY SAND
- SILT TO SANDY SILT
- CLAYEY SILT TO SILTY CLAY
- ND NOT DETECTED AT OR ABOVE REPORTED DETECTION LIMITS

FIGURE 7: HYDROGEOLOGIC CROSS SECTION D-D'

FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

ALTON GEOSCIENCE
Pleasanton, California

65-5CSD2

PROJECT NO. 30-0065-05

7/10/92

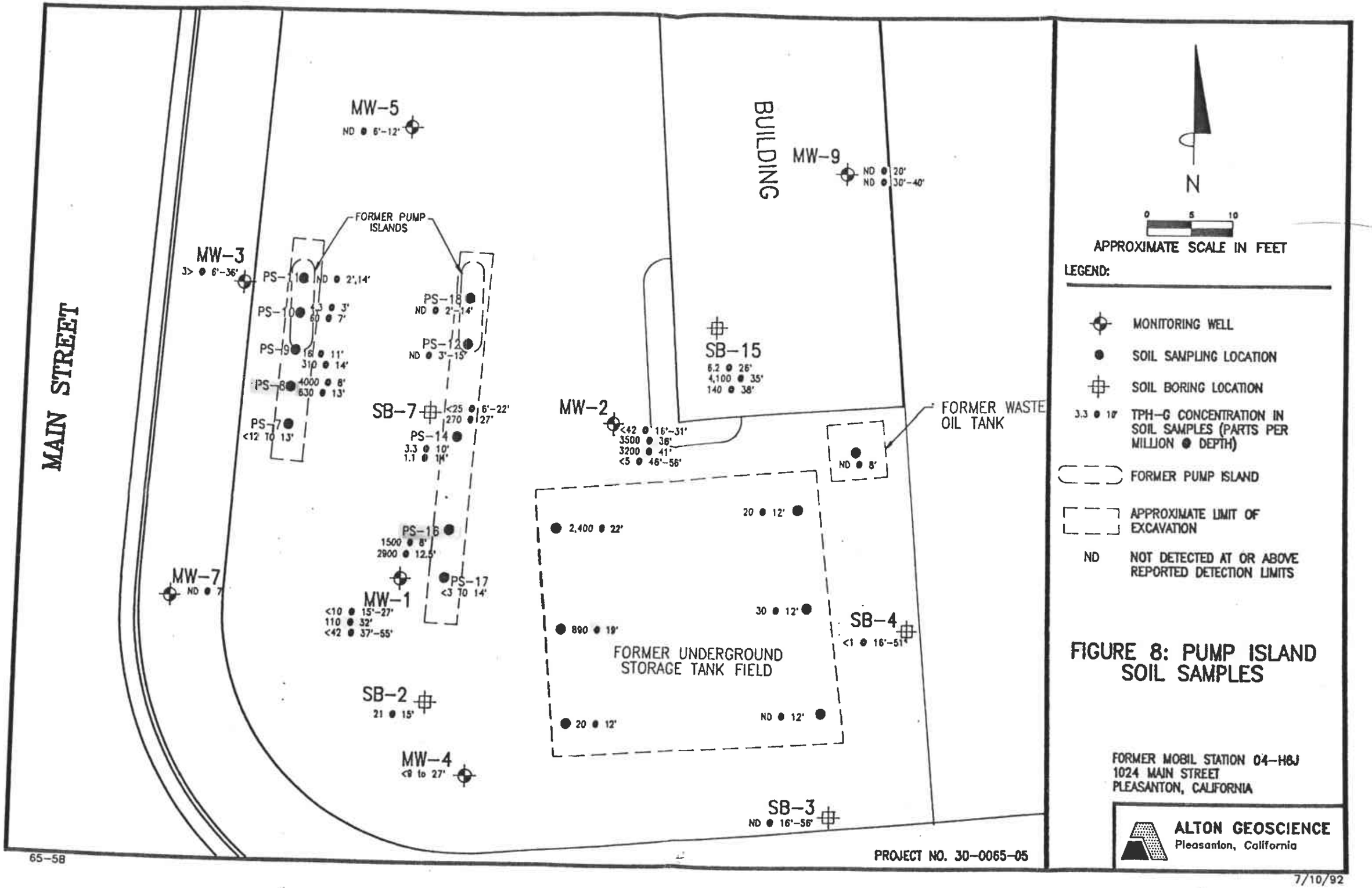


FIGURE 8: PUMP ISLAND SOIL SAMPLES

FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA

ALTON GEOSCIENCE
Pleasanton, California

65-58

PROJECT NO. 30-0065-05

7/10/92

TABLE 1
Summary of Results of Ground Water Monitoring and Sample Analysis
Former Mobil Station 04-H6J
1024 Main Street Pleasanton, California
Project No. 30-0065

Concentrations in Parts Per Billion (ppb)

SAMPLE ID	DATE OF SAMPLING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	PRODUCT THICKNESS	TPH-G	TPH-D	B	T	E	X	HVOCs	Organic Lead	Total Lead	LAB
MW-1	04/16/90	348.03	21.80	326.43	---	3600	---	73	13	3	160	46 a	ND<10	---	SAL
MW-1	10/16/90	348.03	43.16	304.85	---	8000	ND<1000	700	360	170	480	84 a	---	---	SAL
MW-1	06/06/91	348.03	38.65	309.36	---	2600	---	310	340	110	340	ND *	---	ND<5.0	SAL
MW-1	01/06/92	348.03	38.68	309.35	---	2400	---	270	370	16	340	14 a	ND<50	---	SAL
MW-1	04/30/92	348.03	39.93	308.10	---	1300	---	150	120	12	160	4.3 a	---	---	SEQ
MW-2	04/16/90	348.45	45.27	303.18	---	84000	---	5500	7600	1900	7600	200 a	ND<10	---	SAL
MW-2	10/16/90	348.45	43.18	305.27	---	83000	10000	6800	9100	2400	11000	480 a	---	---	SAL
MW-2	06/06/91	348.45	39.19	309.26	---	160000	---	16000	25000	4300	19000	ND *	---	330	SEQ
MW-2	01/06/92	348.45	39.40	309.05	0.02	---	---	---	---	---	---	---	---	---	NA
MW-2	04/30/92	348.45	40.50	307.95	---	71000	---	9200	18000	3700	15000	420 a	---	---	NA
MW-3	04/16/90	347.97	21.80	326.37	---	2100	---	32	56	31	170	117 a	ND<10	---	SAL
MW-3	10/16/90	347.97	14.28	333.69	---	110	ND<1000	3	3	1	5	2 a	---	---	SAL
MW-3 **	06/06/91	347.97	33.19	314.78	---	---	---	---	---	---	---	---	---	---	NA
MW-3	01/06/92	347.97	32.36	315.61	---	660	---	8.9	26	8.5	72	6.7 a	---	---	NA
MW-3 **	04/30/92	347.97	33.15	314.82	---	---	---	---	---	---	---	---	---	---	NA
MW-4	10/16/90	348.07	43.16	304.91	---	8600	2000	160	500	200	1200	9 a	---	---	SAL
MW-4	06/06/91	348.07	38.65	309.42	---	6900	---	320	420	220	650	ND *	---	ND<5.0	SEQ
MW-4	01/06/92	348.07	39.65	309.42	---	3400	---	600	980	220	1100	9.2 a	ND<50	---	SEQ
MW-4	04/30/92	348.07	39.88	308.19	---	7200	---	650	1200	210	1200	ND *	---	---	SEQ
MW-5 ***	10/16/90	347.97	***	---	---	---	---	---	---	---	---	---	---	---	NA
MW-5 **	06/06/91	347.97	34.25	313.72	---	---	---	---	---	---	---	---	---	---	NA
MW-5 **	01/06/92	347.97	34.22	313.75	---	---	---	---	---	---	---	---	---	---	NA
MW-5 **	04/30/92	347.97	**	---	---	---	---	---	---	---	---	---	---	---	NA
MW-6	10/16/90	348.23	43.60	304.63	---	9000	ND<1000	1300	150	120	65	140 a	---	---	SEQ
MW-6	06/06/91	348.23	39.07	309.16	---	1600	---	220	10	5.2	14	8.2 a	---	ND<5.0	SEQ
MW-6	01/06/92	348.23	39.18	309.05	---	370	---	61	3.9	4.5	2.9	5.4 a	ND<50	---	SEQ
MW-6	04/30/92	348.23	40.46	307.77	---	610	---	180	8.4	6.8	3.3	7.0 a	---	---	SEQ
MW-7	10/16/90	347.90	9.26	338.64	---	ND<50	ND<1000	0.3	0.5	ND<0.3	0.8	ND *	---	---	SAL
MW-7 **	06/06/91	347.90	24.20	323.70	---	---	---	---	---	---	---	---	---	---	NA
MW-7	01/06/92	347.90	23.79	324.11	---	220	---	7.8	1.7	ND<0.3	0.56	---	---	---	SEQ
MW-7 **	04/30/92	347.90	24.40	323.50	---	---	---	---	---	---	---	---	---	---	NA

TABLE 1
Summary of Results of Ground Water Monitoring and Sample Analysis
Former Mobil Station 04-H6J
1624 Main Street Pleasanton, California
Project No. 30-0065

Concentrations in Parts Per Billion (ppb)

SAMPLE ID	DATE OF SAMPLING	CASING ELEVATION	DEPTH TO WATER	GROUND WATER ELEVATION	PRODUCT THICKNESS	TPH-G	TPH-D	B	T	E	X	HVOCs	Organic Lead	Total Lead	LAB
MW-5	10/15/90	348.90	11.30	337.60	---	600	ND<1000	5	5	7	62	ND *	---	---	SAL
MW-5 **	09/05/91	348.90	29.80	320.30	---	---	---	---	---	---	---	---	---	---	NA
MW-5 **	01/08/92	348.90	---	---	---	---	---	---	---	---	---	---	---	---	NA
MW-5 **	04/30/92	348.90	---	---	---	---	---	---	---	---	---	---	---	---	NA
MW-9	02/04/92	348.53	43.84	304.69	---	16000	---	3000	740	1200	2500	69 a	ND<60	---	BEQ
MW-9	04/30/92	348.53	42.83	305.70	---	8400	---	1000	120	410	350	ND *	---	---	BEQ
PCPT-1	09/15/91	---	---	---	---	69	---	4	0.52	0.39	0.49	---	---	20	BEQ
CPT-2	09/15/91	---	---	---	---	ND<30	---	ND<0.30	ND<0.30	ND<0.30	ND<0.30	---	---	40	BEQ
PCPT-3	09/15/91	---	---	---	---	360	---	10	32	5.6	50	---	---	60	BEQ
CPT-4	09/21/91	---	---	---	---	350	---	10	9	2.9	8.8	---	---	70	BEQ
CPT-6	09/14/91	---	---	---	---	ND<30	---	0.34	0.41	ND<0.30	0.49	---	---	30	BEQ
CPT-7	09/14/91	---	---	---	---	670	---	9.8	3.2	1.3	1.7	---	---	ND<5.0	BEQ
CPT-8	09/14/91	---	---	---	---	ND<30	---	ND<0.30	0.34	ND<0.30	0.4	---	---	---	BEQ
CPT-8B	09/21/91	---	---	---	---	ND<30	---	ND<0.30	ND<0.30	ND<0.30	ND<0.30	---	---	60	BEQ

EXPLANATION OF ABBREVIATIONS

TPH-G	:total petroleum hydrocarbons as gasoline
TPH-D	:total petroleum hydrocarbons as diesel
B	:benzene
T	:toluene
E	:ethylbenzene
X	:total xylenes
TOG	:total oil and grease
a	:1,2-dichloroethane
ND	:not detected at reported detection limit.
---	:not applicable/not analyzed
*	:detection limits vary dependent on compound
**	:well dry/insufficient water in well to sample
***	:well inaccessable
SAL	:Superior Analytical Laboratories
BEQ	:Sequoia Analytical

TABLE 2
Summary of Results of Soil Sampling
Former Mobil Station 04–H6J
1024 Main Street, Pleasanton, California
Project No. 30–0065

Concentrations in Parts Per Million (ppm)

SAMPLE ID	DATE OF SAMPLING	SAMPLE DEPTH	TPH–G	TPH–D	B	T	E	X	TOG	HVOCs	ORGANIC LEAD	LAB
SB–1	12/28/89	4.5–5.0'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	ND<0.5	SAL
	12/28/89	9.5–10.0'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	ND<0.5	SAL
	12/28/89	14.5–15.0'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	ND<0.5	SAL
	12/28/89	29.5–30.0'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	ND<0.5	SAL
SB–2	12/28/89	4.5–5.0'	ND<1.0	---	0.013	0.021	0.011	0.040	---	---	ND<0.5	SAL
	12/28/89	9.5–10.0'	ND<1.0	---	0.009	0.010	ND<0.003	0.021	---	---	ND<0.5	SAL
	12/28/89	14.5–15.0'	ND<1.0	---	0.021	0.009	ND<0.003	0.012	---	---	ND<0.5	SAL
	12/28/89	19.5–20.0'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	ND<0.5	SAL
	12/28/89	29.5–30.0'	ND<1.0	---	0.014	0.014	0.005	0.008	---	---	ND<0.5	SAL
	12/28/89	36.5–39.0'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	ND<0.5	SAL
SB–3	03/26/90	16.0–16.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
	03/26/90	21.0–21.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
	03/26/90	26.0–26.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
	03/26/90	31.0–31.5'	ND<1.0	---	0.015	0.007	ND<0.003	0.005	---	---	---	SAL
	03/26/90	51.0–51.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
SB–4	03/21/90	16.0–16.5'	1.0	---	0.020	0.010	0.006	0.140	---	---	---	SAL
	03/21/90	21.0–21.5'	ND<1.0	---	0.066	0.005	0.052	0.016	---	---	---	SAL
	03/21/90	26.0–26.5'	ND<1.0	---	0.25	0.006	0.050	ND<0.003	---	---	---	SAL
	03/21/90	31.0–31.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
	03/21/90	56.0–56.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
SB–5/MW–2	03/22/90	16.0–16.5'	2.0	---	0.11	0.055	0.063	0.350	---	---	---	SAL
	03/22/90	21.0–21.5'	3.0	---	0.26	0.53	0.090	0.510	---	---	---	SAL
	03/22/90	26.0–26.5'	3.0	---	0.47	0.79	0.079	0.450	---	---	---	SAL
	03/22/90	31.0–31.5'	42	---	2.1	5.2	1.1	5.3	---	---	---	SAL
	03/22/90	36.0–36.5'	3500	---	53	340	120	610	---	---	---	SAL
	03/22/90	41.0–41.5'	3200	---	16	130	94	450	---	---	---	SAL
	03/23/90	46.0–46.5'	5.0	---	0.079	0.040	0.051	0.053	---	---	---	SAL
	03/23/90	51.0–51.5'	ND<1.0	---	0.016	0.026	0.016	0.065	---	---	---	SAL
	03/23/90	56.0–56.5'	1.0	---	0.032	0.058	0.033	0.094	---	---	---	SAL
SB–6/MW–1	03/21/90	15.0–15.5'	6.0	---	0.15	0.67	0.12	0.720	---	---	---	SAL
	03/21/90	21.0–21.5'	7.0	---	1.2	2.5	0.18	1.1	---	---	---	SAL
	03/21/90	26.0–26.5'	10	---	1.1	2.2	0.24	1.3	---	---	---	SAL
	03/21/90	31.0–31.5'	110	---	1.7	6.1	2.7	13	---	---	---	SAL
	03/21/90	36.0–36.5'	42	---	0.16	0.73	0.72	3.6	---	---	---	SAL
	03/21/90	41.0–41.5'	1.0	---	0.004	0.009	0.005	0.016	---	---	---	SAL
	03/21/90	55.0–56.0'	ND<1.0	---	0.005	0.007	0.003	0.009	---	---	---	SAL

TABLE 2
Summary of Results of Soil Sampling
Former Mobil Station 04-H6J
1024 Main Street, Pleasanton, California
Project No. 30-0065

Concentrations in Parts Per Million (ppm)

SAMPLE ID	DATE OF SAMPLING	SAMPLE DEPTH	TPH-G	TPH-D	B	T	E	X	TOG	HVOCs	ORGANIC LEAD	LAB
SB-7	03/23/90	6.0-6.5'	25	---	0.032	0.32	0.52	3.2	---	---	---	SAL
	03/23/90	21.0-21.5'	5.0	---	0.67	1.6	0.150	0.78	---	---	---	SAL
	03/23/90	26.0-26.5'	270	---	7.8	28	5.9	25	---	---	---	SAL
	03/23/90	31.0-31.5'	3.0	---	0.38	0.76	0.063	0.46	---	---	---	SAL
	03/23/90	36.0-36.5'	ND<1.0	---	0.009	0.014	0.050	0.024	---	---	---	SAL
SB-8/MW-3	03/23/90	6.0-6.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
	03/23/90	21.0-21.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SAL
	03/23/90	26.0-26.5'	2.0	---	ND<0.003	0.024	0.011	0.017	---	---	---	SAL
	03/23/90	31.0-31.5'	3.0	---	0.025	0.006	0.16	0.29	---	---	---	SAL
	03/23/90	36.0-36.5'	ND<1.0	---	0.030	0.008	ND<0.003	0.021	---	---	---	SAL
SB-9/MW-4	10/08/90	6.0-6.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
	10/08/90	16.0-16.5'	1.0	---	0.90	0.074	0.010	0.19	30	0.015 a	---	SAL
	10/08/90	21.0-21.5'	4.0	---	1.5	0.20	0.140	0.27	---	0.066 a	---	SAL
	10/08/90	26.0-26.5'	9.0	---	2.6	0.044	0.84	0.069	ND<20	0.13 a	---	SAL
SB-10/MW-5	10/08/90	6.0-6.5'	ND<1.0	---	ND<0.003	0.006	ND<0.003	0.015	---	ND *	---	SAL
	10/08/90	11.0-11.5'	ND<1.0	---	19	6.0	ND<0.003	61	---	ND *	---	SAL
SB-11/MW-6	10/09/90	6.0-6.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
	10/09/90	11.0-11.5'	ND<1.0	---	ND<0.003	0.005	ND<0.003	ND<0.003	ND<20	ND *	---	SAL
	10/09/90	16.0-16.5'	ND<1.0	---	ND<0.003	0.004	ND<0.003	ND<0.003	---	ND *	---	SAL
	10/09/90	21.0-21.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	30	ND *	---	SAL
	10/09/90	26.0-26.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
	10/09/90	31.0-31.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	ND<20	ND *	---	SAL
	10/09/90	36.0-36.5'	ND<1.0	---	0.008	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
SB-12/MW-7	10/10/90	6.0-6.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
	10/10/90	11.0-11.5'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
SB-13/MW-8	10/10/90	6.0-6.5'	ND<1.0	---	0.007	ND<0.003	ND<0.003	ND<0.003	---	ND *	---	SAL
SB-14/MW-9	01/21/92	3.0-3.5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
	01/21/92	6.0-6.5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<3.3	ND *	---	SEQ
	01/31/92	19.50-20.0'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<30	ND *	---	SEQ
	01/31/92	29.5-30.0'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<30	ND *	---	SEQ
	01/31/92	34.5-35.0'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<30	ND *	---	SEQ
	01/31/92	39.5-40.0'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<30	ND *	---	SEQ

TABLE 2
Summary of Results of Soil Sampling
Former Mobil Station 04–H6J
1024 Main Street, Pleasanton, California
Project No. 30–0065

Concentrations in Parts Per Million (ppm)

SAMPLE ID	DATE OF SAMPLING	SAMPLE DEPTH	TPH–G	TPH–D	B	T	E	X	TOG	HVOCs	ORGANIC LEAD	LAB
SB–15	01/21/92	3.0–3.5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
	01/21/92	6.0–6.5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	ND *	---	SEQ
	01/30/92	11.5–12.0'	ND<1.0	---	ND<0.0050	0.011	ND<0.0050	0.014	ND<30	ND *	---	SEQ
	01/30/92	17.5–18.0'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<30	ND *	---	SEQ
	01/30/92	25.0–25.5'	6.2	---	0.013	1.3	0.16	1.0	ND<30	23 a	---	SEQ
	01/30/92	34.5–35.0'	4100	---	51	270	130	540	ND<30	390 a	---	SEQ
	01/30/92	37.0–37.5'	740	---	7.2	29	18	73	ND<30	65 a	---	SEQ
T#1–E	10/16/89	12'	ND<10	ND<10	---	---	---	---	---	---	---	SAL
T#1–W	10/16/89	12'	20	ND<10	---	---	---	---	---	---	---	SAL
T#2–E	10/16/89	12'	8100	30	---	---	---	---	---	---	---	SAL
T#2–E	10/16/89	16'	30	ND<10	---	---	---	---	---	---	---	SAL
T#2–W	10/16/89	19'	800	40	---	---	---	---	---	---	---	SAL
T#2–W	10/16/89	12'	6000	40	---	---	---	---	---	---	---	SAL
T#3–E	10/16/89	12'	20	ND<10	---	---	---	---	---	---	---	SAL
T#3–W	10/16/89	12'	9000	30	---	---	---	---	---	---	---	SAL
T#3–W	10/16/89	22'	2400	ND<50	---	---	---	---	---	---	---	SAL
T#4	10/16/89	8'	ND<10	ND<10	---	---	---	---	---	---	---	SAL
PS–1	10/31/90	5'	6.0	---	0.003	0.007	0.020	0.27	---	---	---	SEQ
PS–2	10/31/90	3'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SEQ
PS–3	10/31/90	3'	ND<1.0	---	ND<0.003	ND<0.003	ND<0.003	ND<0.003	---	---	---	SEQ
PS–4	10/31/90	3'	110	---	ND<0.003	0.10	0.43	5.6	---	---	---	SEQ
PS–5	10/31/90	3'	9700	---	2.9	180	180	1200	---	---	---	SEQ
PS–6	10/31/90	3'	2200	---	0.010	6.0	15	80	---	---	---	SEQ
PS–7	10/24/91	6'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–7	10/24/91	10'	11	---	0.041	0.015	0.47	1.5	---	---	---	SEQ
PS–7	10/24/91	13'	17	---	0.11	0.76	0.65	2.0	---	---	---	SEQ
PS–8	10/24/91	8.5'	4000	---	2.6	130	100	650	---	---	---	SEQ
PS–8	10/24/91	13'	650	---	2.3	40	16	93	---	---	---	SEQ
PS–9	10/24/91	11'	16	---	0.12	0.004	0.51	1.2	---	---	---	SEQ
PS–9	10/24/91	14.5'	310	---	0.68	15	9.6	50	---	---	---	SEQ
PS–10	10/24/91	3'	4.3	---	0.0064	0.064	ND<0.005	0.38	---	---	---	SEQ
PS–10	10/24/91	7'	60	---	0.29	ND<0.025	0.82	6.7	---	---	---	SEQ
PS–10	10/24/91	16'	670	---	1.9	36	16	100	---	---	---	SEQ

TABLE 2
Summary of Results of Soil Sampling
Former Mobil Station 04–H6J
1024 Main Street, Pleasanton, California
Project No. 30–0065

Concentrations in Parts Per Million (ppm)

SAMPLE ID	DATE OF SAMPLING	SAMPLE DEPTH	TPH–G	TPH–D	B	T	E	X	TOG	HVOCs	ORGANIC LEAD	LAB
PS–11	10/24/91	2'	ND<2.5	---	ND<0.013	0.16	ND<0.013	0.05	---	---	---	SEQ
PS–11	10/24/91	14'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–12	10/25/91	5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–12	10/25/91	13.5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–12	10/25/91	15'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–14	10/25/91	5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–14	10/25/91	10'	3.5	---	0.029	0.016	0.027	0.073	---	---	---	SEQ
PS–14	10/25/91	14'	1.1	---	ND<0.0050	ND<0.0050	0.006	0.018	---	---	---	SEQ
PS–16	10/25/91	8'	1500	---	ND<0.25	36	59	310	---	---	---	SEQ
PS–16	10/25/91	12.5'	2900	---	10	360	120	560	---	---	---	SEQ
PS–17	10/25/91	5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–17	10/25/91	10'	1.3	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–17	10/25/91	14'	2.5	---	ND<0.0050	ND<0.0050	0.024	0.027	---	---	---	SEQ
PS–18	10/25/91	2'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–18	10/25/91	5'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–18	10/25/91	7'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ
PS–18	10/25/91	10'	22	---	0.011	0.062	0.097	0.74	---	---	---	SEQ
PS–18	10/25/91	14'	ND<1.0	---	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	---	---	---	SEQ

EXPLANATION OF ABBREVIATIONS:

TPH–G	:total petroleum hydrocarbons as gasoline
TPH–D	:total petroleum hydrocarbons as diesel
B	:benzene
T	:toluene
E	:ethylbenzene
X	:total xylenes
TOG:	:total oil & grease
HVOC'S	:halogenated volatile organic compounds
PS	:soil samples collected beneath former pump islands
T#	:soil samples collected from tank excavations
SB	:soil samples collected from soil borings
---	:not analyzed/not measured
ND	:not detected at or above reported detection limit
*	:detection limits vary dependent upon compound
a	:1,2–dichloroethane
SAL	:Superior Analytical Laboratory
SEQ	:Sequoia Analytical Laboratory

Note: 1. Samples SB–14 at 6.0–6.5 and 39.5–40 fbg, and SB–15 at 37.0–37.5 fbg were additionally analyzed for inorganic metals (see laboratory report).
2. Samples SB–14 at 39.5–40.0 fbg and SB–15 at 37.0–37.5 fbg were additionally detected concentrations of organic carbon at 140 and 330 ppm.

APPENDIX A

PROJECT BACKGROUND AND SENSITIVE RECEPTORS SURVEY

PROJECT BACKGROUND

March 1989: A soil gas survey was conducted by Target Environmental Services (TES). Hydrocarbon vapors were detected in soil near the existing pump islands.

October 1989: Balch Petroleum removed three underground gasoline storage tanks and an underground waste oil tank. Approximately 260 yards of hydrocarbon-affected soil were excavated, sampled, aerated onsite, and subsequently removed for disposal. Analysis of soil samples collected from the excavations revealed the presence of hydrocarbon-affected soil.

March to April 1990: Alton Geoscience conducted a Phase I Site Investigation, consisting of drilling of eight exploratory soil borings, three of which were subsequently converted to Monitoring Wells MW-1, MW-2, and MW-3. A report of findings was submitted to Mobil Oil Corporation and the appropriate regulatory agencies in June 1990.

October to December 1990: Alton Geoscience conducted a Phase II Site Investigation consisting of drilling five additional exploratory soil borings. A report of findings was submitted to Mobil Oil Corporation and the appropriate regulatory agencies in January 1990.

October 1990: Alton Geoscience conducted a Phase III Site Investigation consisting of drilling five additional exploratory soil borings. These soil borings were subsequently converted to Monitoring Wells MW-4, MW-5, MW-6, MW-7, and MW-8. A report of findings was submitted to Mobil Oil Corporation and the appropriate regulatory agencies in January 1990.

August 14 to 16, 1991: Alton Geoscience contracted Earth Technology Corporation to conduct a geophysical survey of the site using a cone penetrometer (CPT). Ground water samples were collected where possible. A total of nine CPT soundings were conducted.

October 24 to 24, 1991: Alton Geoscience supervised Balch Petroleum during trenching operations beneath the location of the former pump islands. Analysis of soil samples collected during the excavation revealed the presence of hydrocarbon-affected soil. Approximately 100 yards of soil were excavated and stockpiled onsite.

August to November 1991: Alton Geoscience takes continuous ground water level measurements from several wells using a data logger. From data collected it was noted there were significant changes in ground water elevations over a short period of time. Alton Geoscience researched possible reasons for these fluctuations.

December 19, 1991: Alton Geoscience conducted an aquifer pumping test in an effort to characterize the aquifer beneath the site. Data collected during the pumping test indicated that further characterization of the aquifer was necessary.

January 6, 1992: Alton Geoscience prepared a letter report summarizing the activities performed between August 1991 and January 1992. Findings from these investigative activities were also presented. The report was sent via fax to Mobil Oil Corporation on January 6, 1991.

January 8, 1992: Trenches excavated by Balch Petroleum in October 1991 were backfilled by Balch Petroleum.

January 10, 1992: Alton Geoscience submitted a proposal to Mobil Oil Corporation requesting permission to perform out-of-scope work consisting of drilling 2 exploratory soil borings inside the existing station building. Alton Geoscience also proposed converting one boring into a 4-inch-diameter monitoring well.

January 29 and 30, 1992: Alton Geoscience supervised Clear Heart Construction during drilling of MW-9(SB-14) and SB-15 inside the station building.

March 2, 1992: A constant rate pumping test (Pumping Test A) was performed on MW-1. On March 3, 1992 (Pumping Test B) was performed on MW-2.

SENSITIVE RECEPTORS SURVEY
SITE SURVEY AND LITERATURE SEARCH

Client: Mobil Oil Corporation Project No.: 30-065

Station No.: 10-H6J

Location: 1024 Main Street

City/State: Pleasanton, California

I. Provide answers to the following questions:

A. Is there a public water supply well within 2500 feet? Y/N Y
If Yes, Distance ____ ft.

B. Is there a private water supply well within 1000 feet? Y/N Y
If Yes, Distance ____ ft.

C. Is there a subway within 1000 feet? Y/N N
If Yes, Distance ____ ft.

D. Is there a basement within 1000 feet? Y/N Y
If Yes, Distance 500 ft.

E. Is there a school within 1000 feet? Y/N Y
If Yes, Distance 1020 ft.

F. Is there a surface body of water within 1000 feet? Y/N Y
If Yes, Distance 500 ft.
Name Arroyo del Valle Canal

II. Describe type of local water supply.

Public: City of Pleasanton (local) & Zone 7 (Regional)

- Suppliers Name: Zone 7 & Cof P
- Suppliers Source: See Below - Zone 7 Blend
- Distance to Site: 1/2 mile to 3 miles

Private: ____

Zone 7 Blend
So. Bay Aqueduct
DSRSD (Dublin San Ramon Services District
COF P (City of Pleasanton)
COF L (City of Livermore)
CAL WATER

SENSITIVE RECEPTORS SURVEY
SITE SURVEY AND LITERATURE SEARCH

III. Distance to Nearest Adjacent Properties:

Residential	50 ft.
Commercial	60 ft.
Industrial	10,000 ft.
Hospital	3 ~~ft.~~ miles
School (Alhambra High School) Name	1000 ft.

IV. Aquifer Classification, if available.

Class I - Special Ground Waters
- Irreplaceable Drinking Water Source
- Ecologically Vital

Class II - Current and Potential Drinking Water Sources

Class III - Not Potential Source of Drinking Water

within ½ mile radius

V. Describe observation wells, if any.

Number ~25

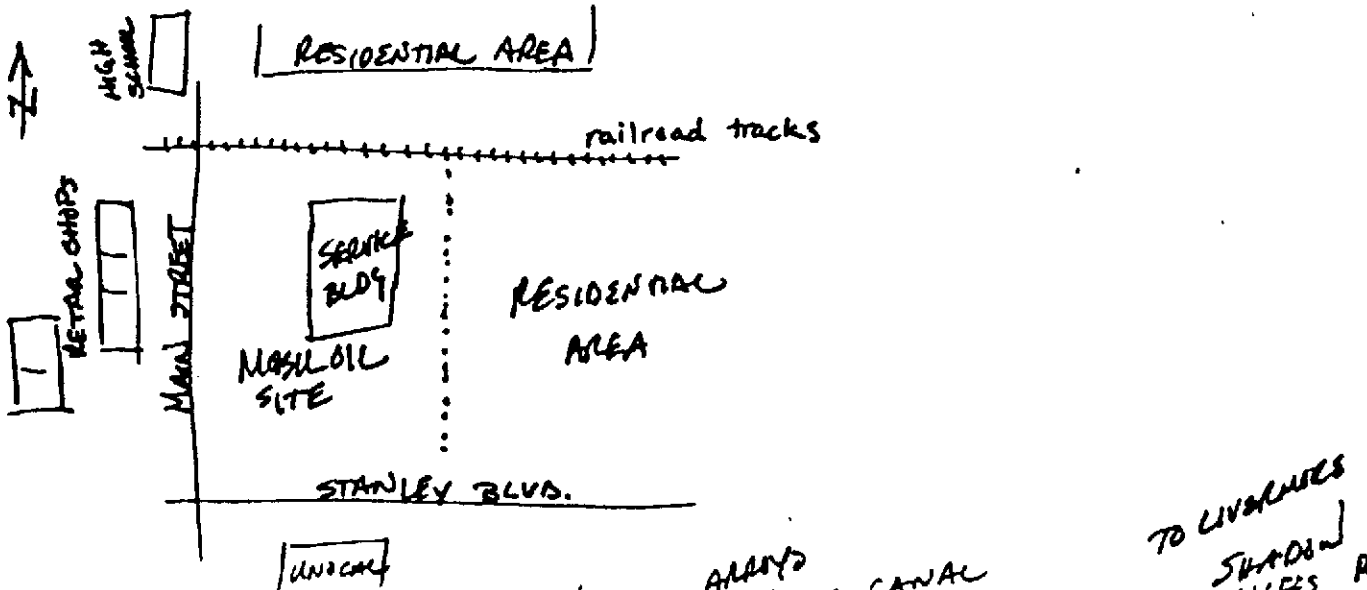
Free Product? Y/N N

WITHIN 500' OF SITE < 7 gw wells onsite, 1 offsite @ Mobil, 3 vadose well cleaned, 2 gw mon. wells, City of Pto

VI. Signature of Preparer: Cheri D'Arcy

Date: 10/02/90

VII. Sketch of Site



APPENDIX B

GEOPHYSICAL METHODS
AND
CONE PENETROMETER DATA LOGS

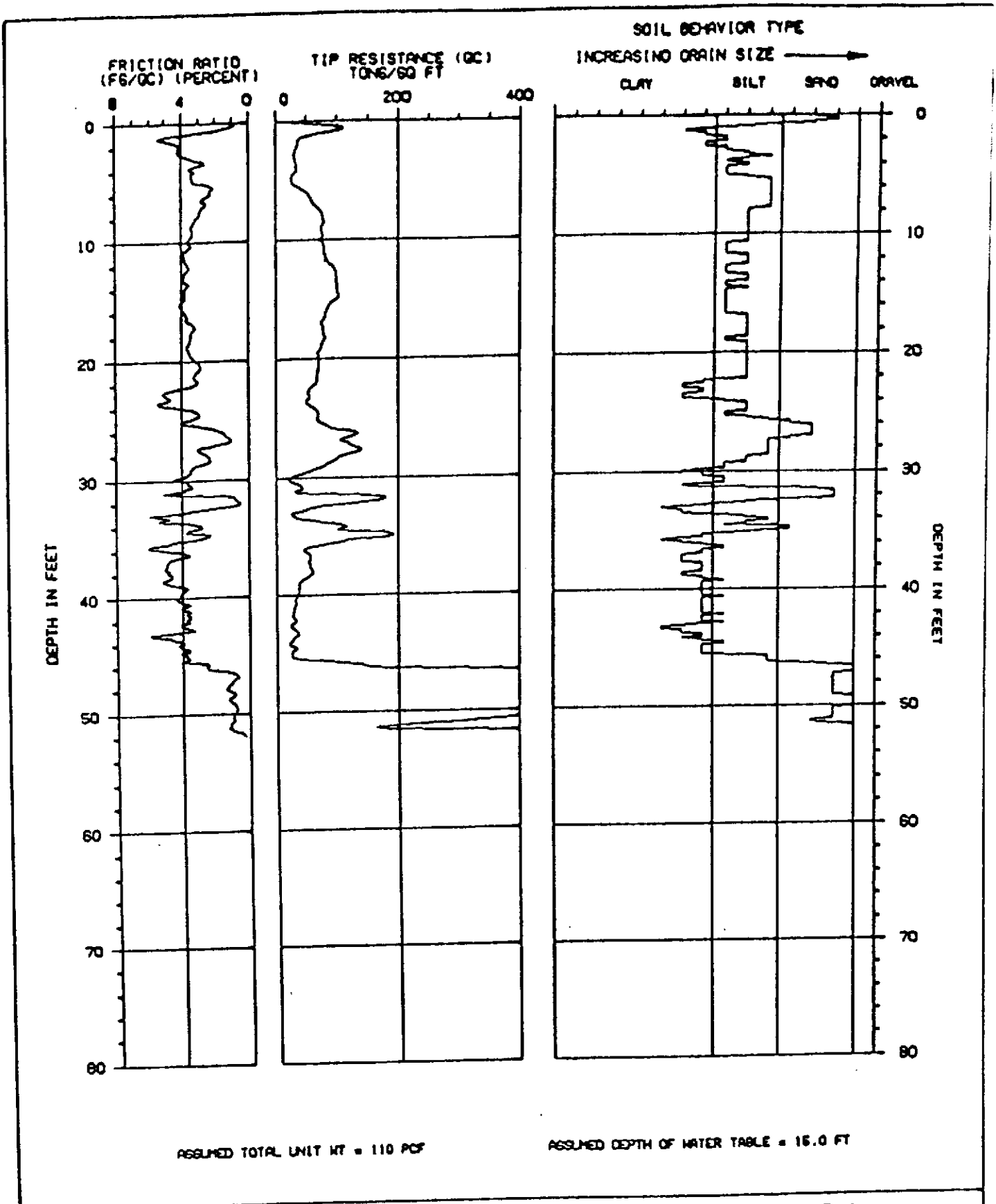
GEOPHYSICAL METHODS
AND
AND CONE PENETROMETER DATA LOGS

The geophysical method used for part of this investigation is known as a cone penetrometer test (CPT). The CPT consists of an instrumented probe which is driven into the sediments using a truck-mounted, hydraulic ram system. The instrumented probe continuously measures tip and frictional resistance, and probe inclination. These data are fed directly into an on-board computerized data system (DAS). Based on analysis of these data by the DAS, a continuous profile of subsurface stratigraphy is generated.

An optional probe can also measure pore pressure at selected depths. This probe is known as a peizocone. Pore pressure dissipation tests were performed at the site.

The CPT can also conduct ground water sampling without installation of a monitoring well. A specialized probe known as a Hydropunch is used. This tool is driven to the desired depth by hydraulic rams. Then the probe is retracted approximately 1 foot, causing the sampling port to open. Hydrostatic pressure forces ground water into the Hydropunch. At the surface, the sample is removed from the sample chamber and transferred to appropriate sample containers using a section of teflon tubing and stopcock which attaches to the Hydropunch's sample container.

This method of investigation does not result in the generation of soil cuttings. In addition, the steel rods used to advance the probe are decontaminated by an automatic steam cleaner as they are removed from the hole. After conducting the CPT sounding, the hole is backfilled from the bottom to the surface with bentonite slurry.



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-1

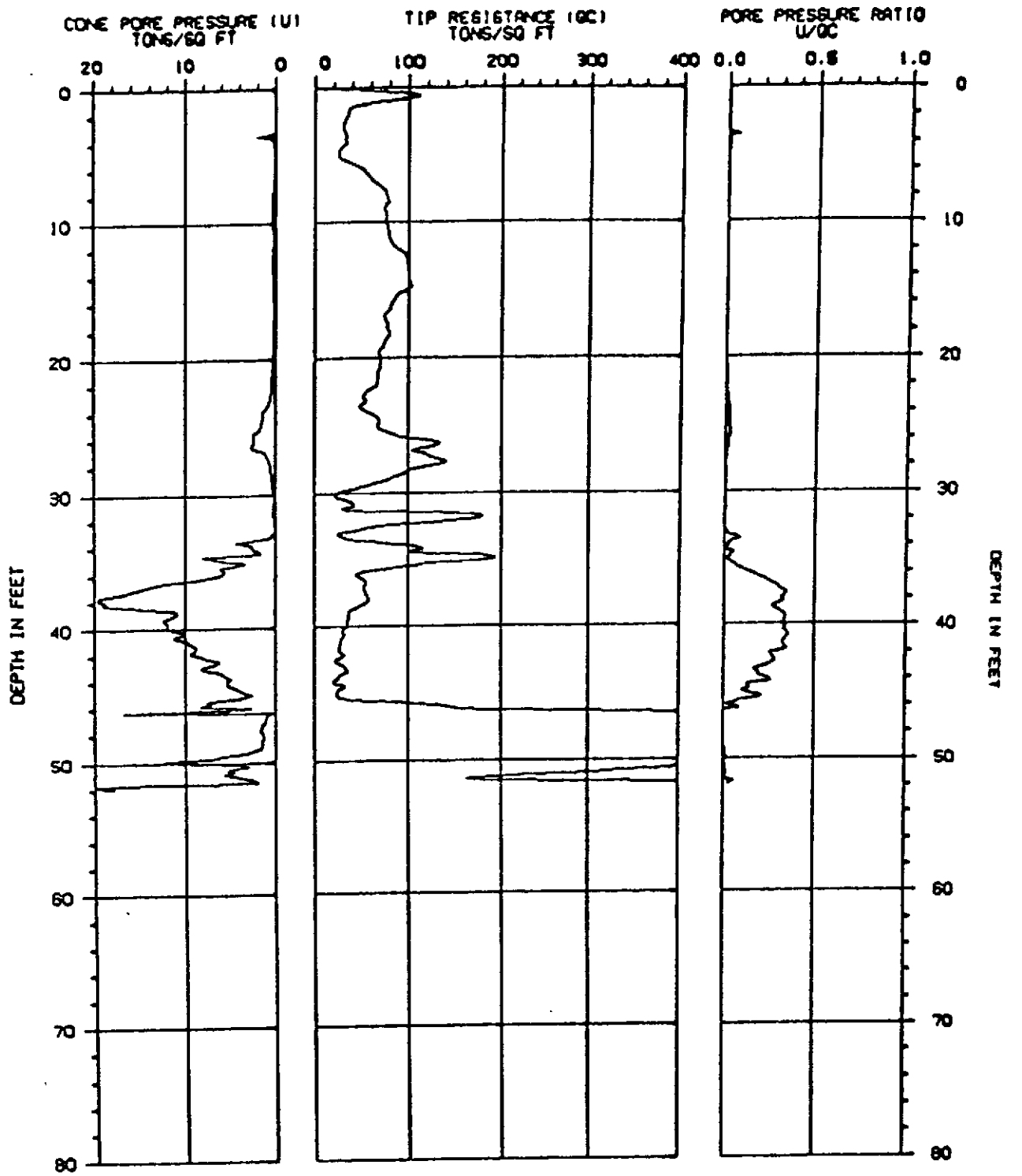
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-1

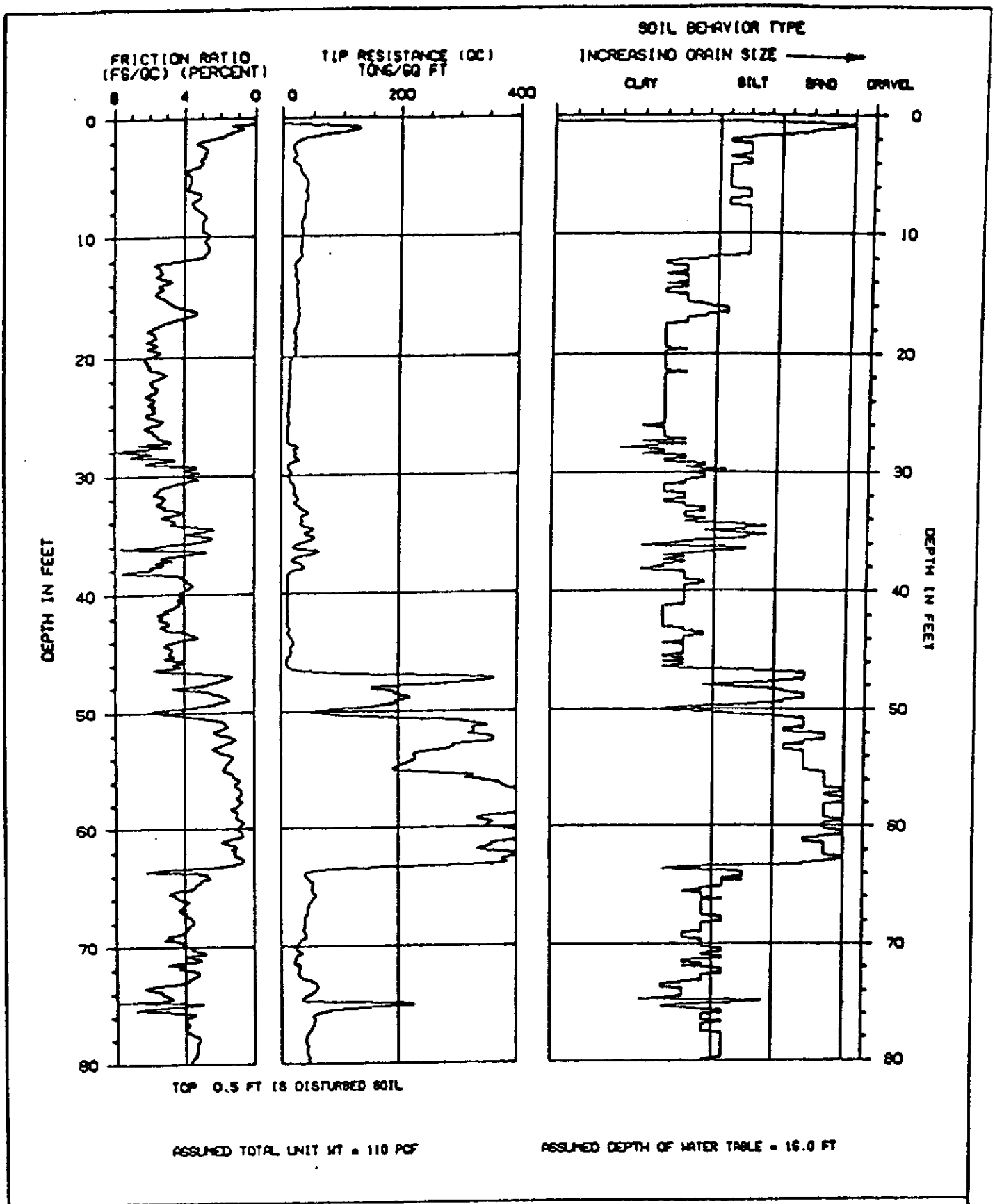
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: CPT-2 (1 OF 2)

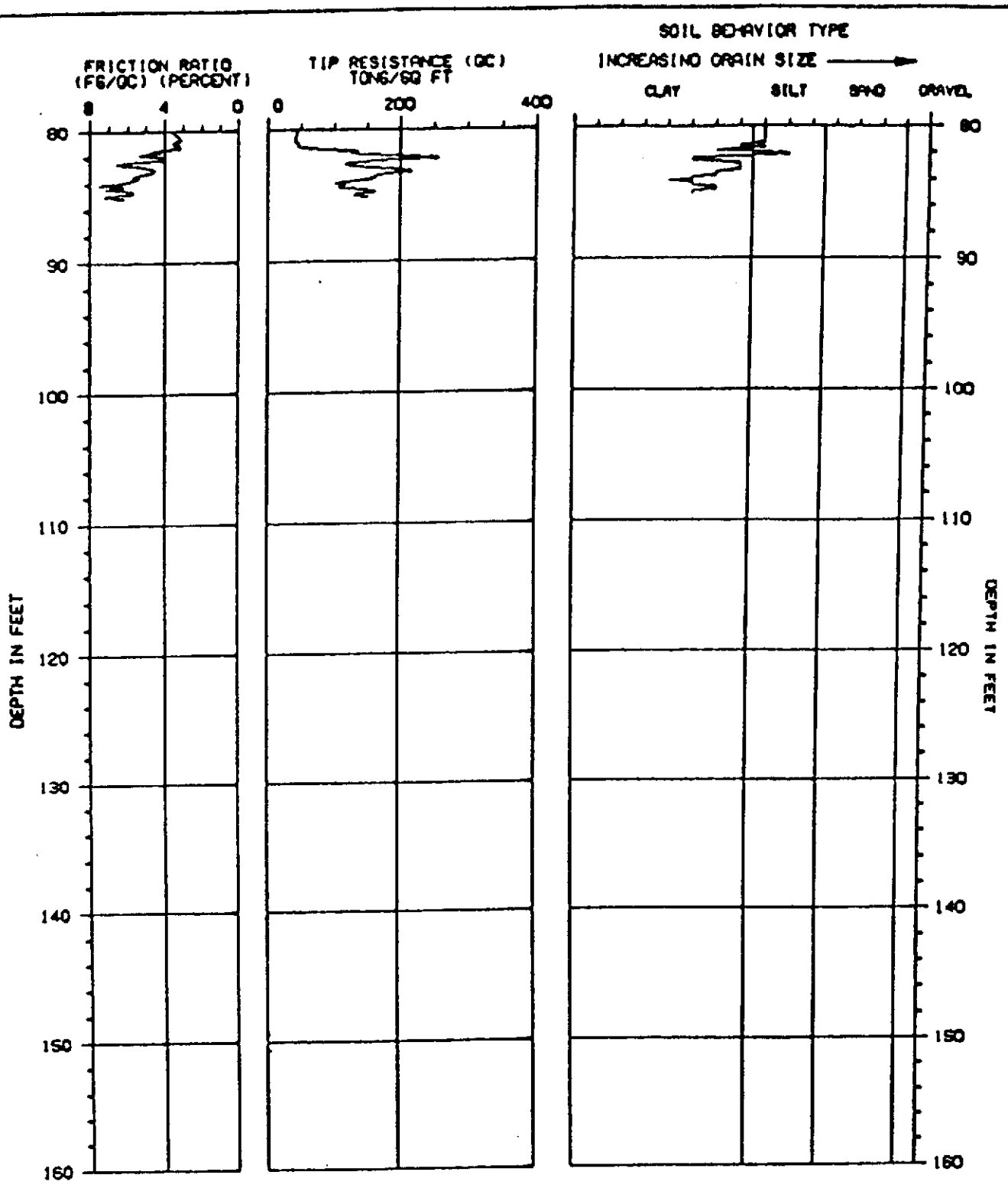
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION



ASSUMED TOTAL UNIT WT = 110 PCF

ASSUMED DEPTH OF WATER TABLE = 15.0 FT

CONE PENETRATION TEST

SOUNDING NUMBER: CPT-2 (2 OF 2)

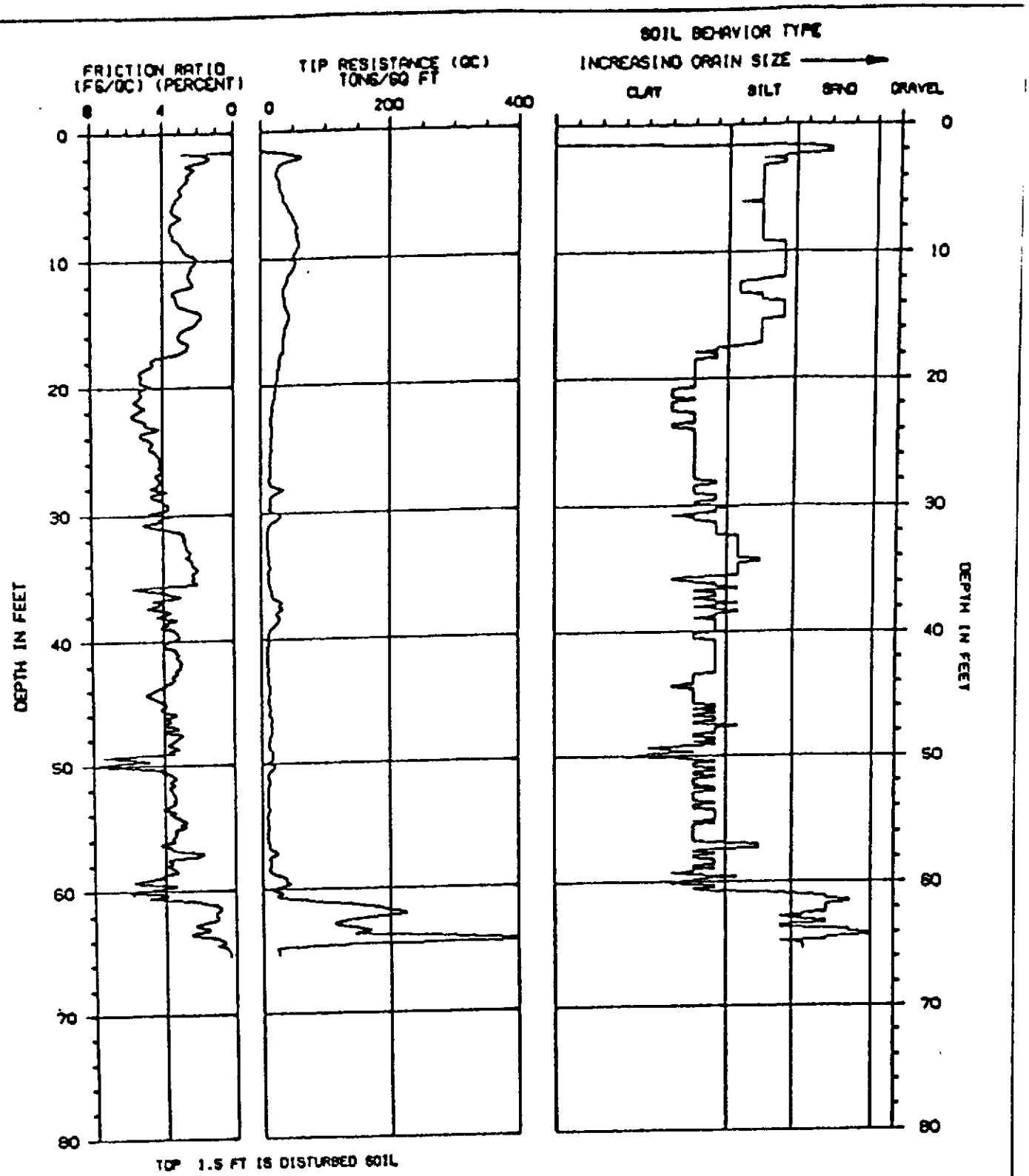
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-3

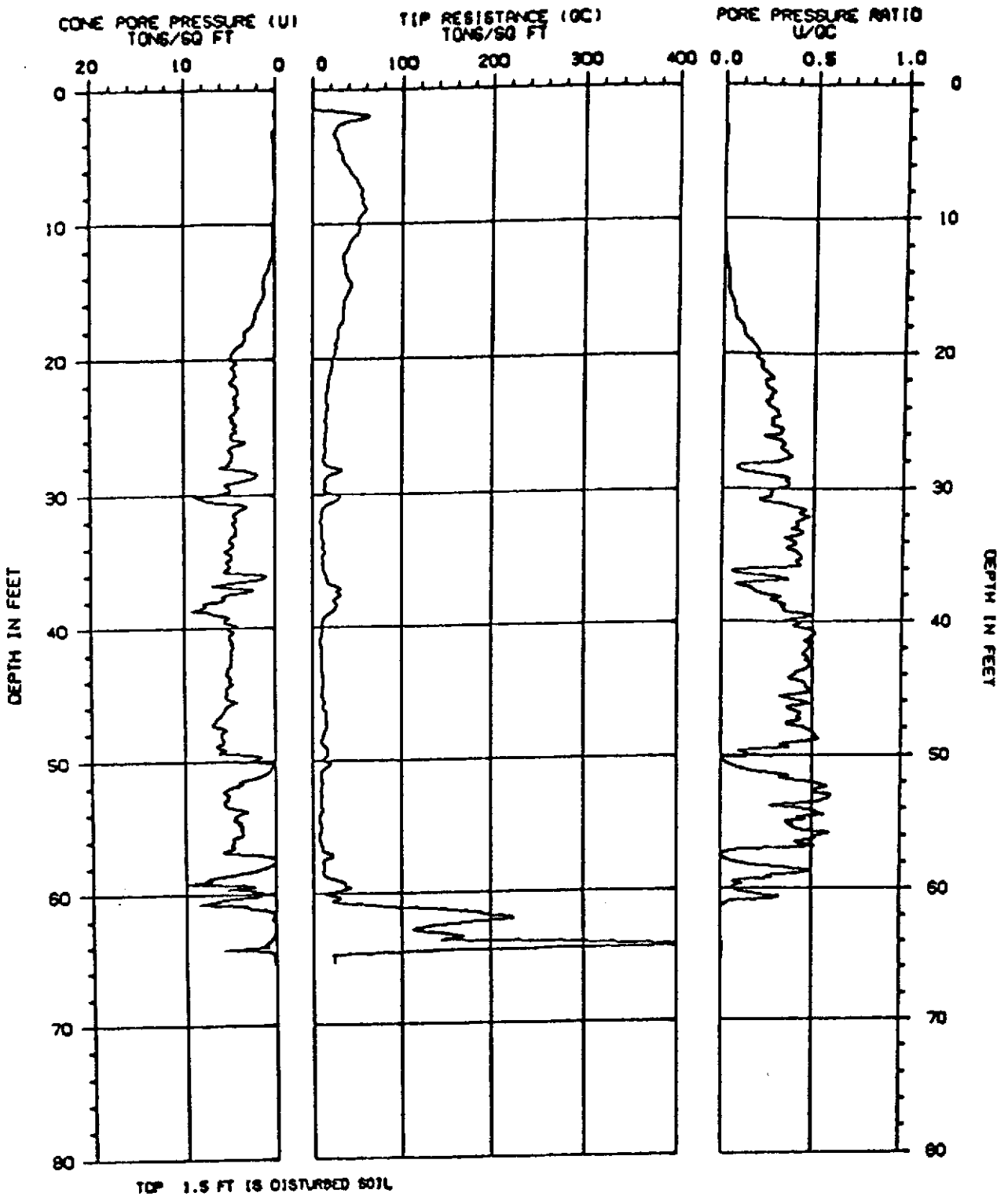
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-3

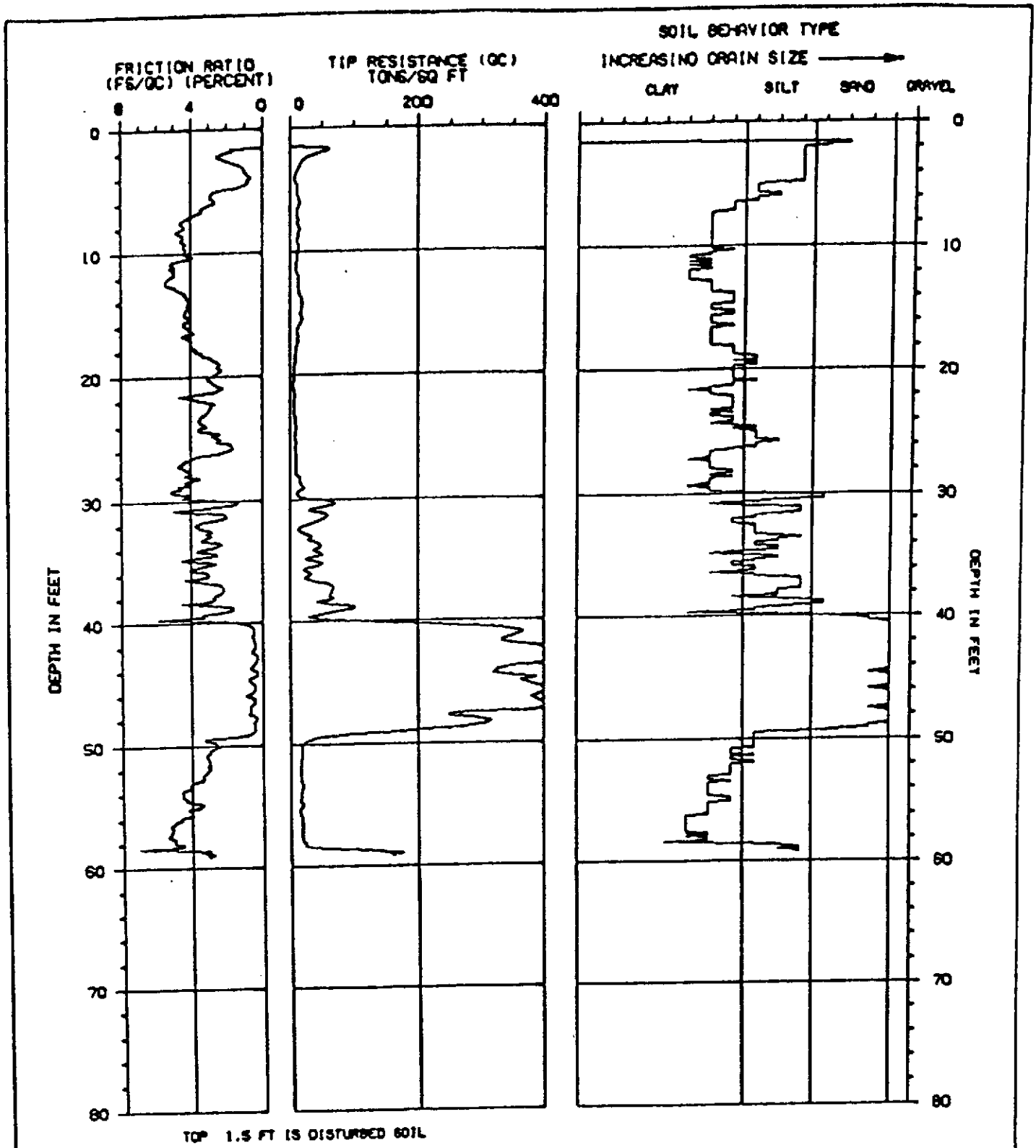
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: CPT-4

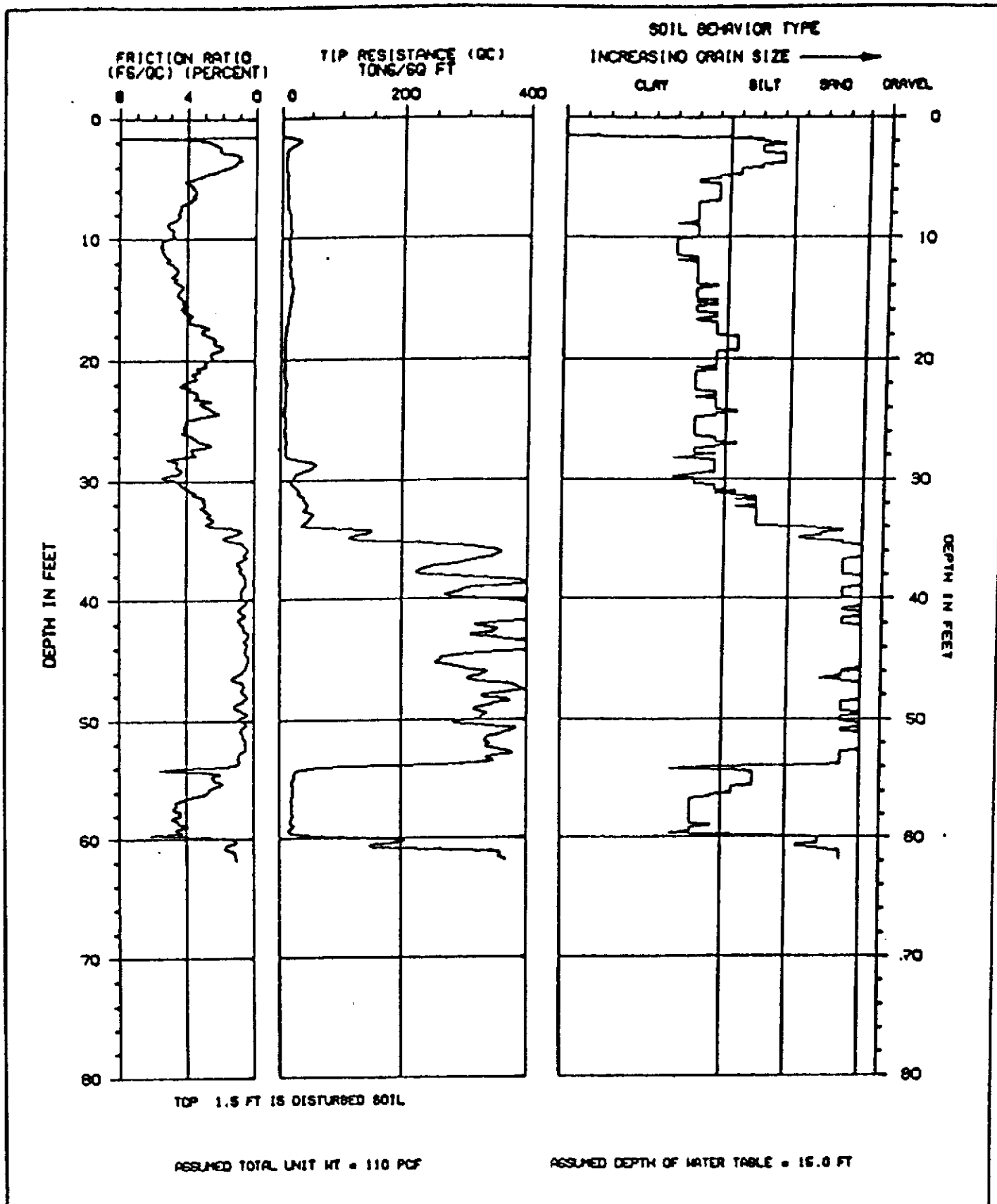
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: CPT-6

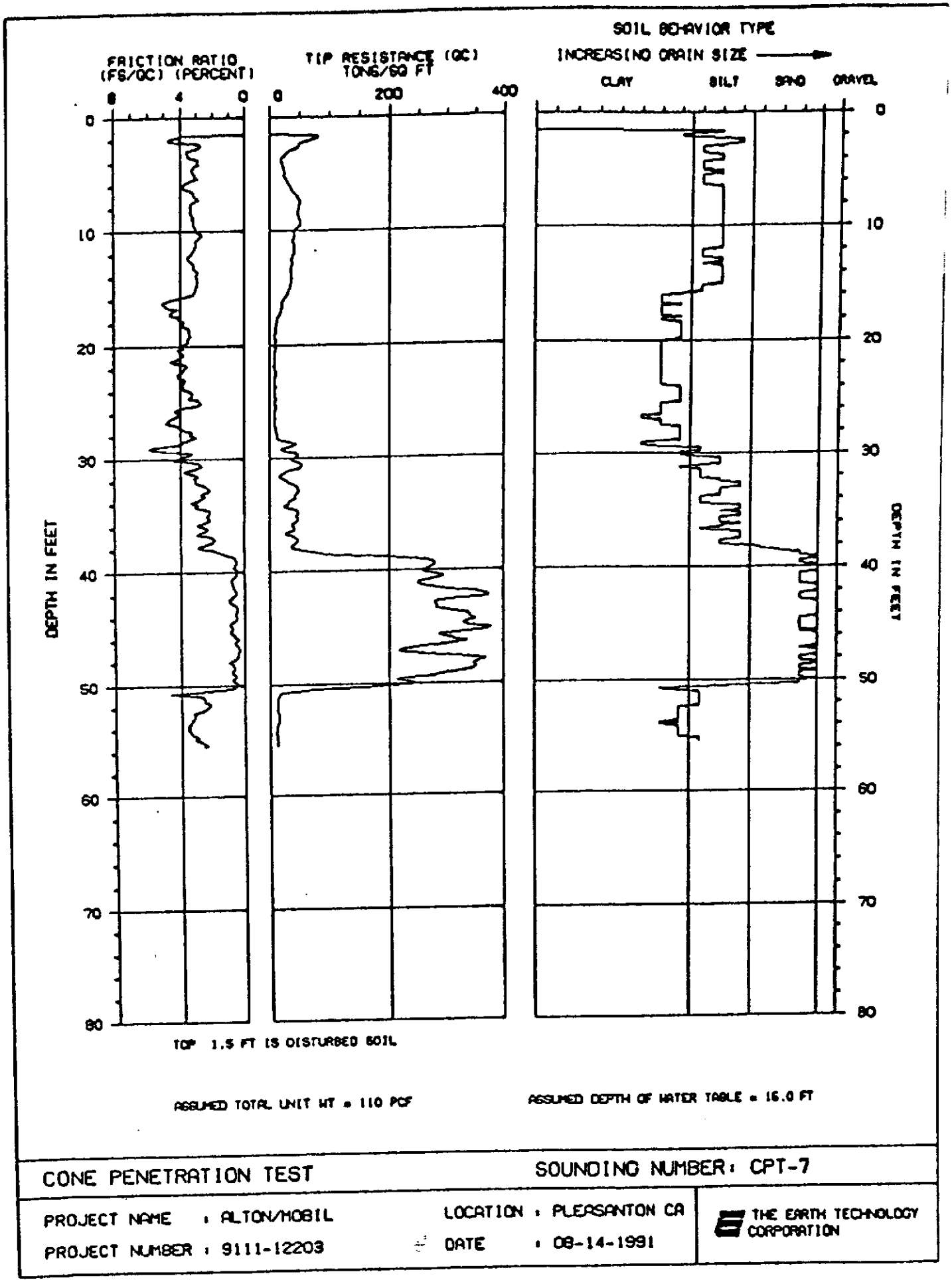
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-14-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: CPT-7

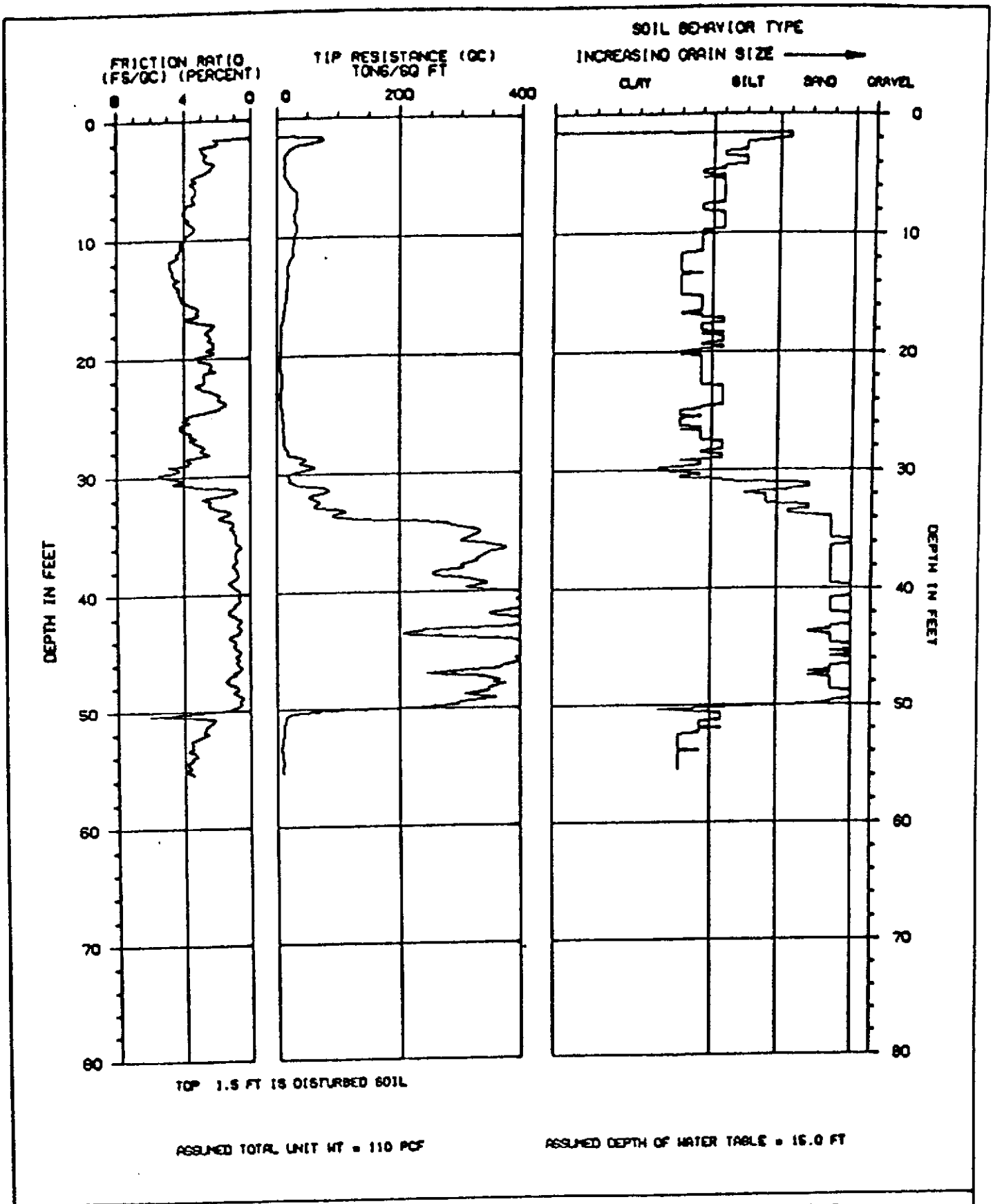
PROJECT NAME : ALTON/MOBIL

LOCATION : PLEASANTON CA

PROJECT NUMBER : 9111-12203

DATE : 08-14-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: CPT-8

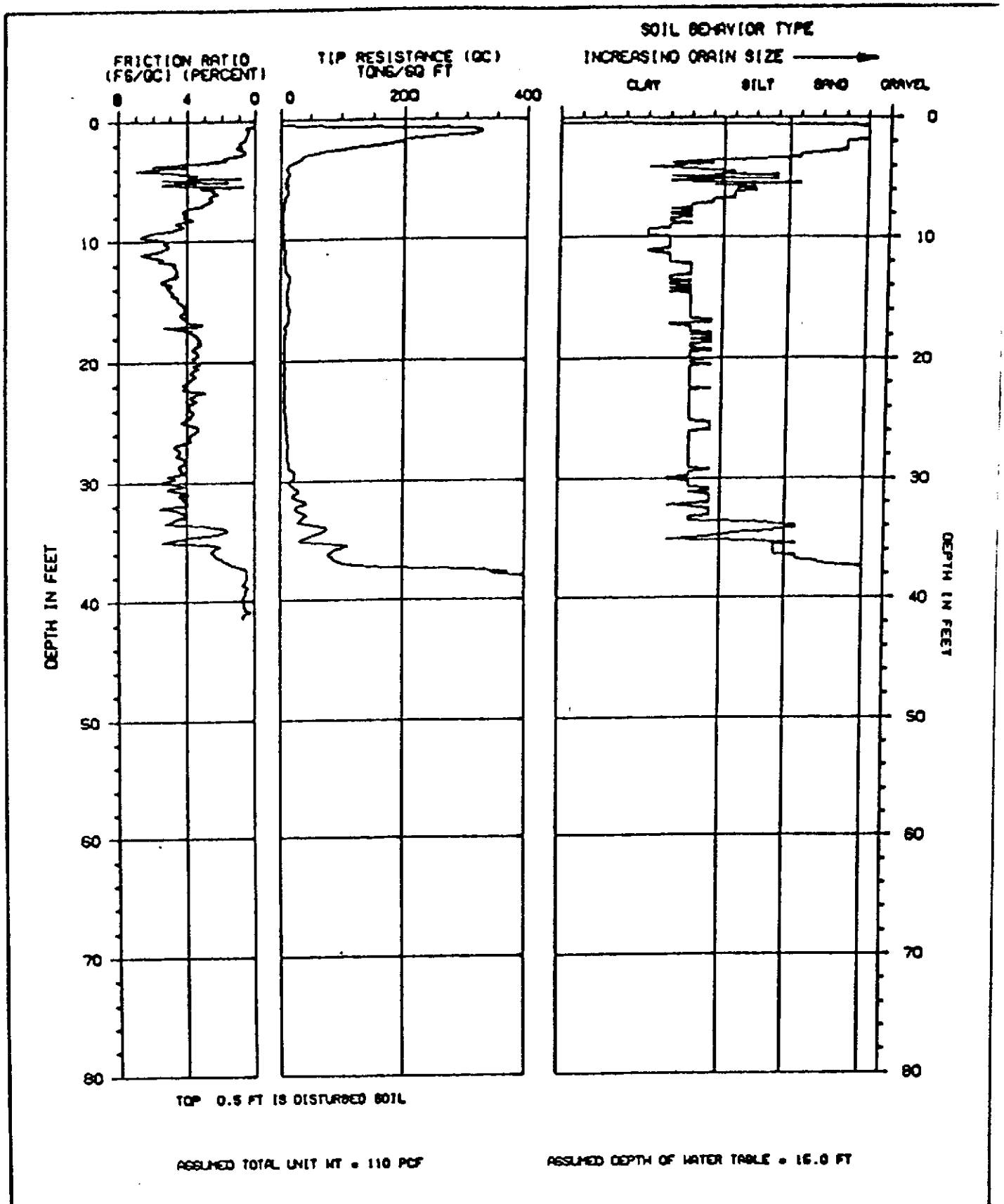
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-14-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-9

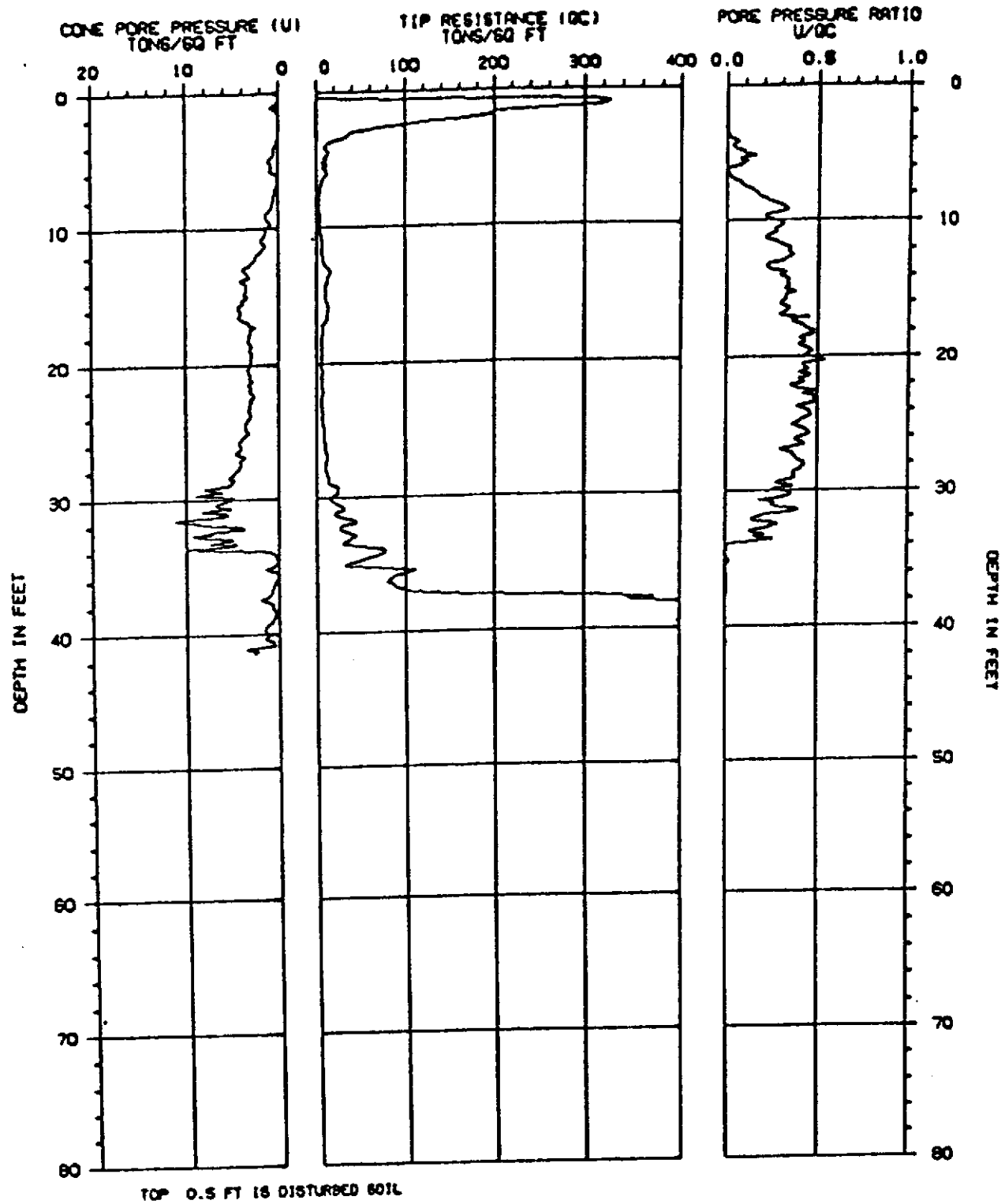
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-9

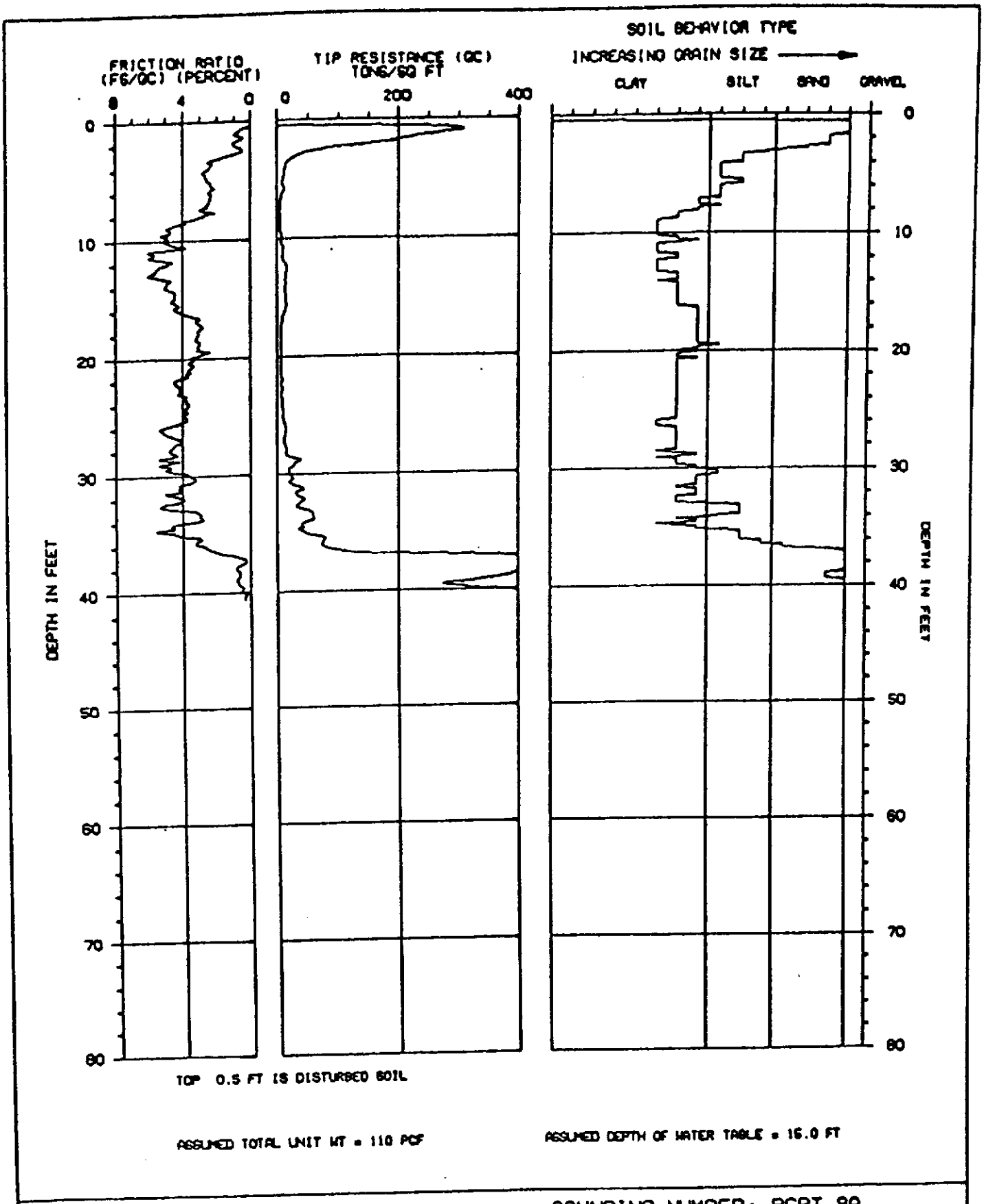
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-9A

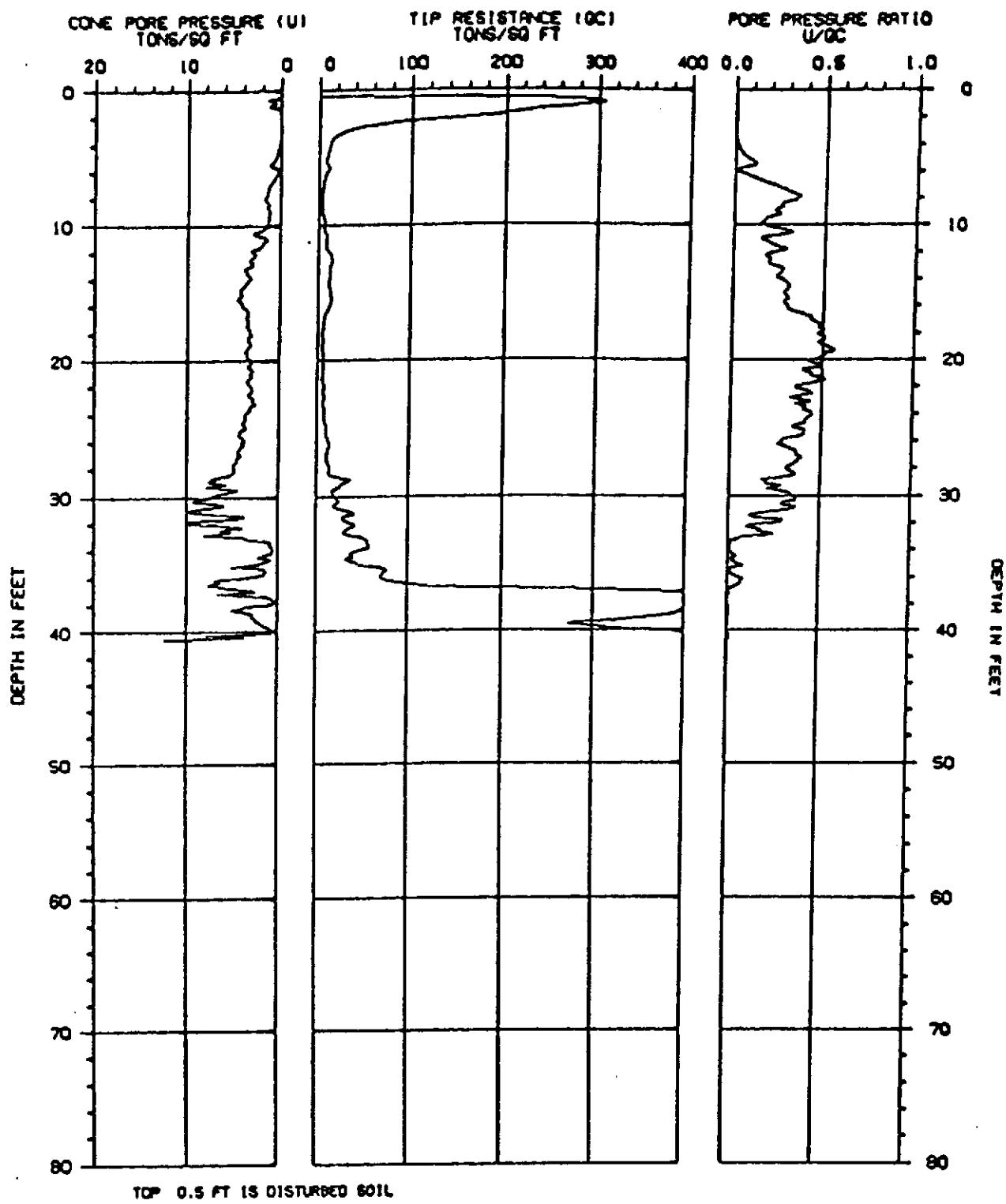
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-9A

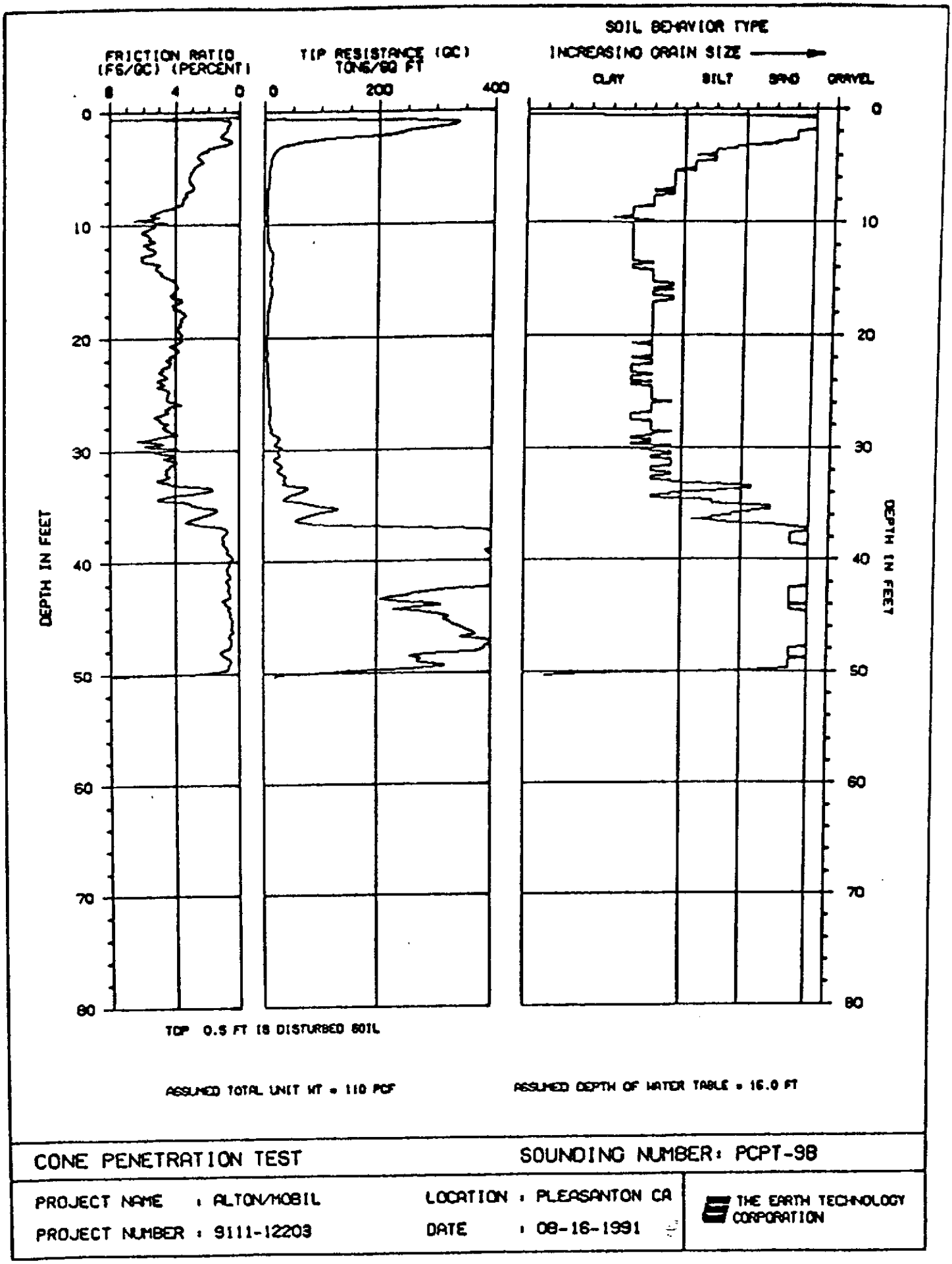
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-98

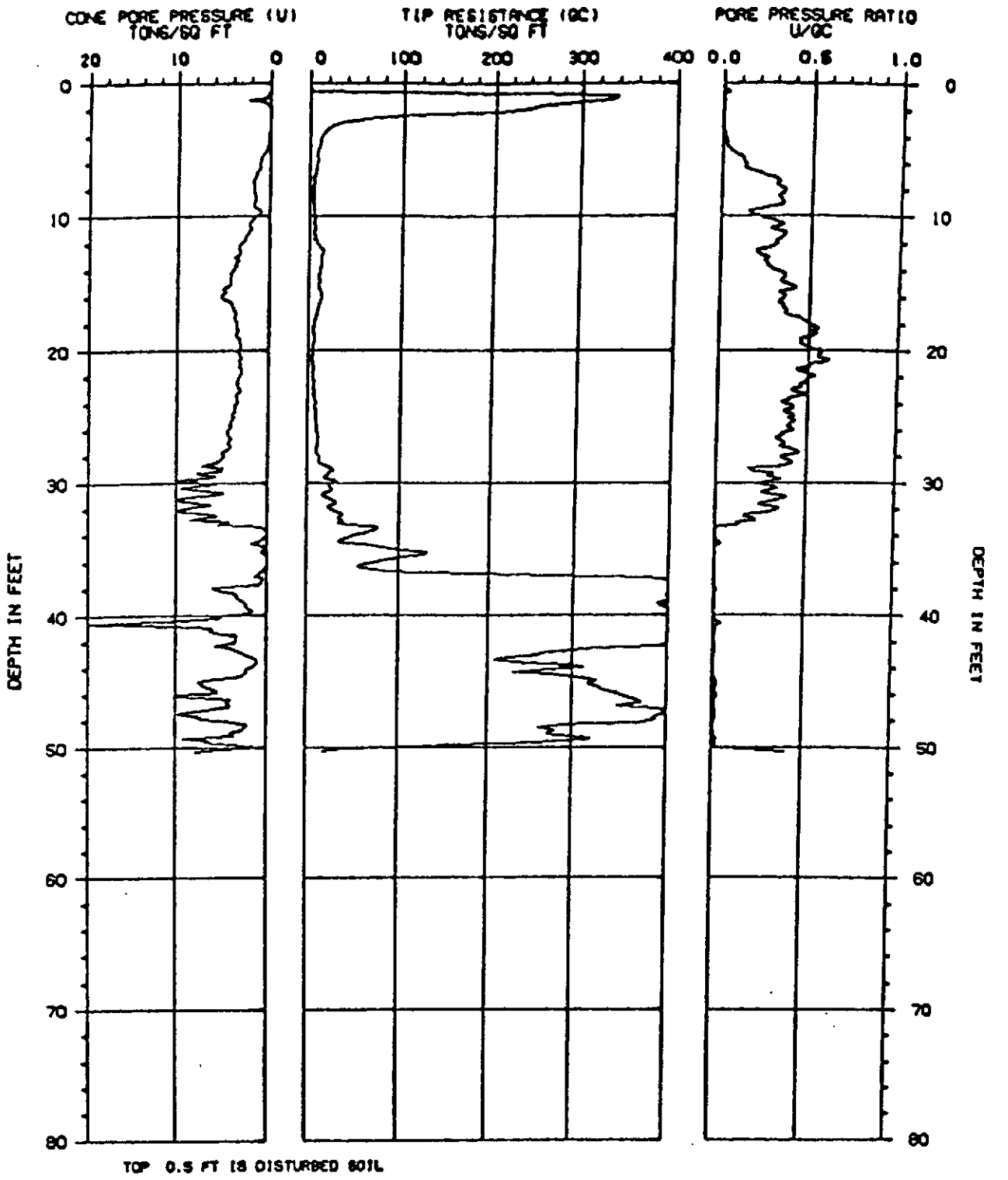
PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION



CONE PENETRATION TEST

SOUNDING NUMBER: PCPT-98

PROJECT NAME : ALTON/MOBIL

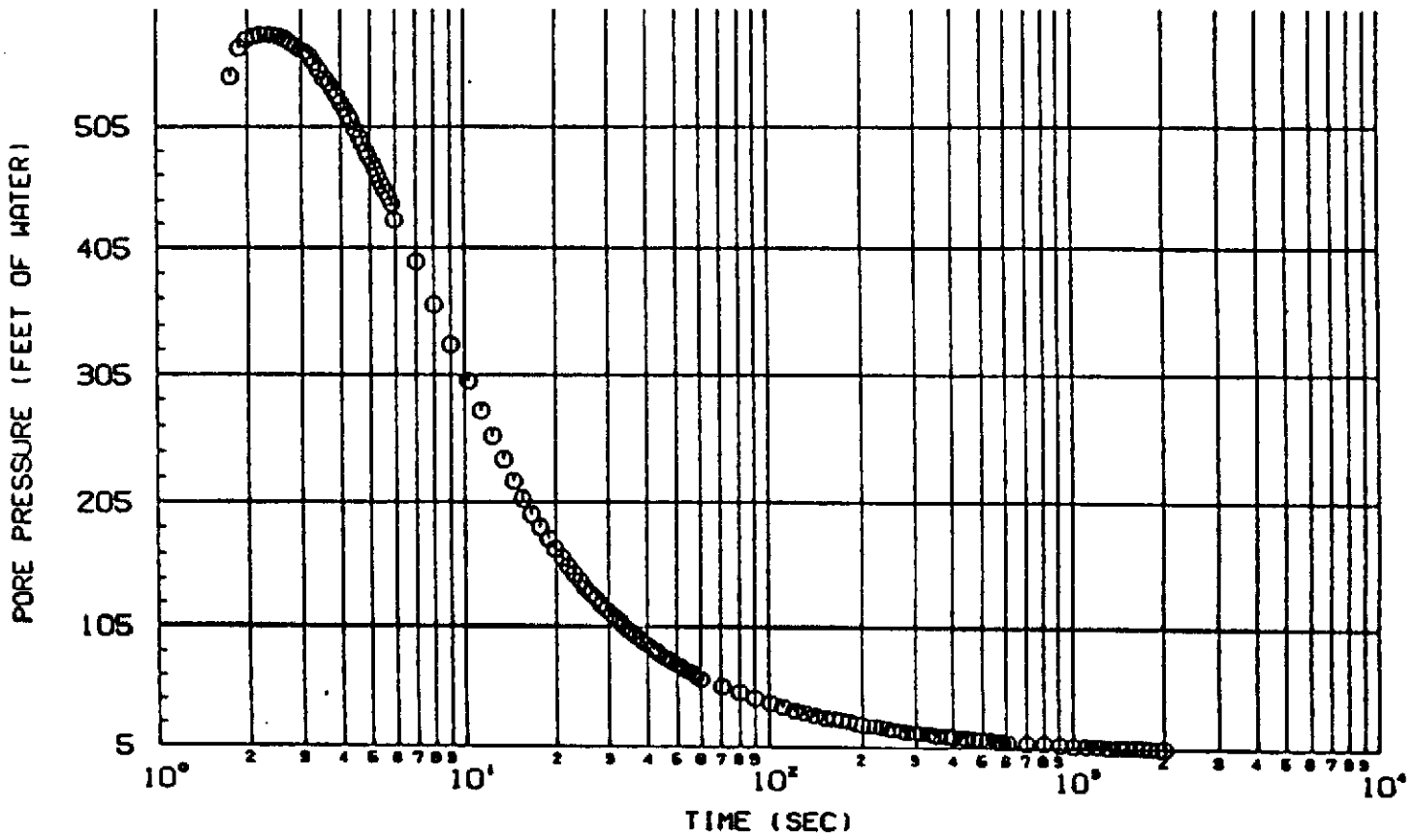
PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION

PORE PRESSURE DISSIPATION CURVES



DEPTH: ⊙ 46.3 FT

TIP-SENSING PIEZOMETRIC CPT

SOUNDING NUMBER: PCPT-1

PROJECT NAME : ALTON/MOBIL

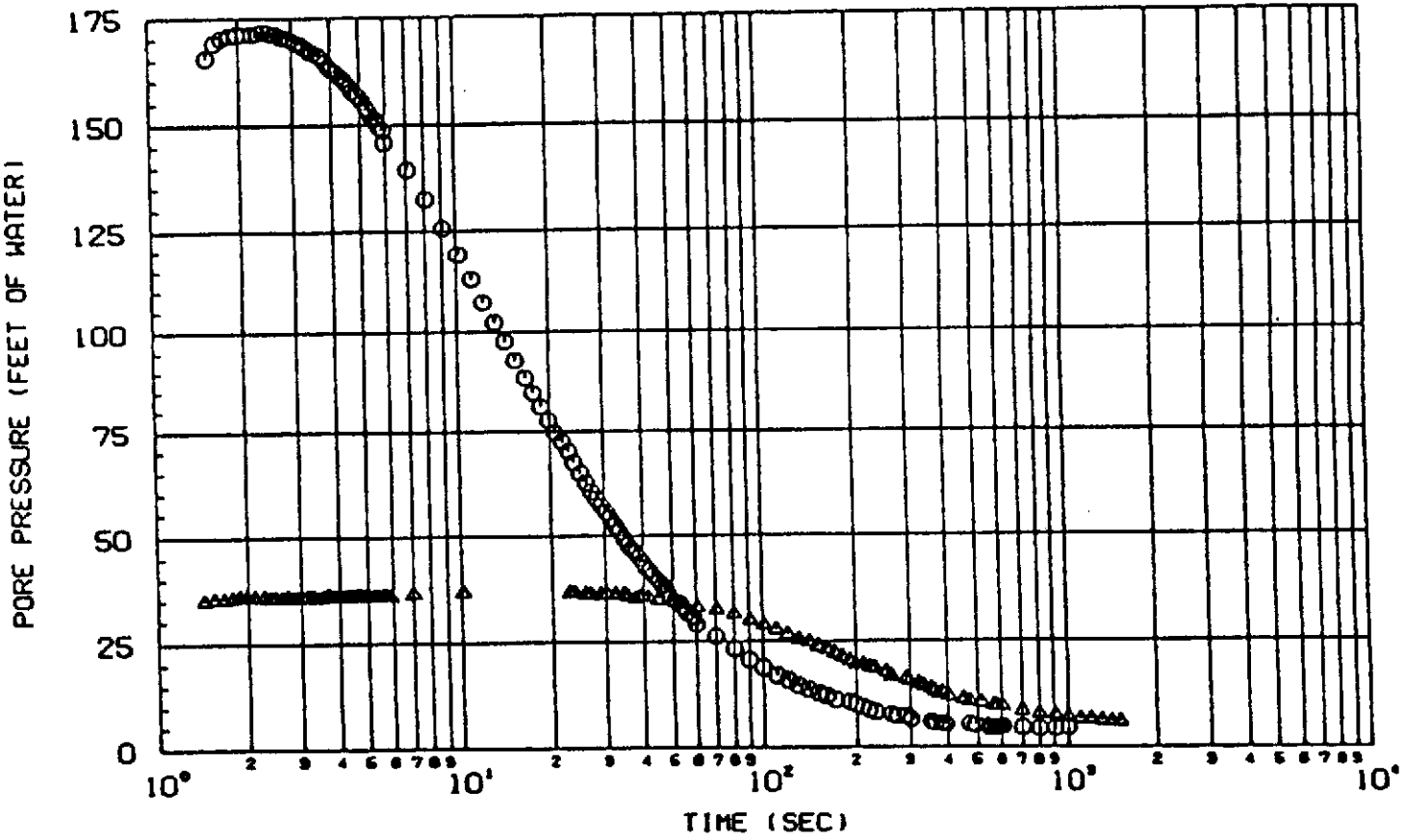
PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-16-1991

THE EARTH TECHNOLOGY CORPORATION

PORE PRESSURE DISSIPATION CURVES



DEPTH: ⊙ 50.1 FT △ 64.7 FT

TIP-SENSING PIEZOMETRIC CPT

SOUNDING NUMBER: PCPT-3

PROJECT NAME : ALTON/MOBIL

PROJECT NUMBER : 9111-12203

LOCATION : PLEASANTON CA

DATE : 08-15-1991

THE EARTH TECHNOLOGY CORPORATION

APPENDIX C

ALTON GEOSCIENCE
GENERAL FIELD PROCEDURES FOR
GROUND WATER MONITORING/RECOVERY AND
VAPOR EXTRACTION WELL CONSTRUCTION

ALTON GEOSCIENCE
GENERAL FIELD PROCEDURES FOR GROUND WATER MONITORING/RECOVERY AND VAPOR EXTRACTION WELL CONSTRUCTION

Ground water monitoring wells were constructed of clean 2- or 4-inch-diameter, flush-threaded, Schedule 40 PVC blank casing extending from grade level to a depth estimated above the highest anticipated water level, and 2- or 4-inch-diameter screened casing with 0.010-inch perforations extending to a depth of approximately 10 feet into the water table. The casings, fittings, screens, and other components of the well construction were clean before installation.

For monitoring well construction, the annular space surrounding the screened portion was backfilled with No. 3 or 2/16 Monterey sand (filter pack) to approximately 1 to 2 feet above the top of the screened section. A bentonite annular seal (approximately 1 foot thick) was placed above the filter pack. The remaining annulus was grouted with neat cement to the surface. Monument well boxes were installed slightly above grade to minimize infiltration of surface waters. Locking, watertight well caps were installed to ensure the integrity of the well.

APPENDIX D

ALTON GEOSCIENCE
GENERAL FIELD PROCEDURES
FOR
DRILLING AND SOIL SAMPLING

ALTON GEOSCIENCE
GENERAL FIELD PROCEDURES
FOR
DRILLING AND SOIL SAMPLING

Soil borings were drilled using 3-, 8-, or 11-inch-diameter continuous-flight solid- and hollow-stem augers. To avoid cross-contamination, the augers were steam cleaned prior to drilling each boring.

Samples will be collected for soil description, field hydrocarbon vapor testing, and laboratory analysis. Samples were collected at approximately 3- or 5-foot intervals from the borings drilled for this investigation.

Soil samples were retrieved ahead of the lead auger using a split-spoon or continuous sampler lined with brass or stainless steel inserts. The sampler and sample tubes were washed with an Alconox solution and rinsed before each sampling event. Upon retrieval from the sampler, the bottom sample tube was removed and securely sealed with teflon sheeting and polyurethane caps. The sample was labeled with sample identification, sample depth, geologist's initials, and date of collection. Soil samples were kept on ice prior to and during transport to a California-certified laboratory.

The remaining soil recovered was described in accordance with the Unified Soil Classification System. For each soil type, field estimates of density, moisture, color, grading, and soil type were recorded.

After the soil borings have been drilled, they were backfilled using neat cement, or converted to a monitoring well.

APPENDIX E

PERMITS AND BORING LOGS

LEGEND TO BORING LOG

PROJECT NO. 30-0065

FORMER MOBIL STATION 04-H6J
1024 MAIN STREET
PLEASANTON, CALIFORNIA
January 30-31, 1992

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

COARSE GRAINED SOILS	GRAVELS more than 1/2 of coarse fraction > No. 4 Sieve	Little or no fines	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly-graded gravels, gravel-sand mixtures
		Appreciable fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS more than 1/2 of coarse fraction < No. 4 Sieve	Little or no fines	SW	Well-graded sands, gravelly sands, little or no fines
			SP	Poorly-graded sands, gravelly sands, little or no fines
		Appreciable fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS	SILTS AND CLAYS Liquid limit < 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit > 50		MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PE	Peat, humus, swamp soils with high organic contents

SYMBOL LEGEND:

- Portland Cement
- #3 Monterey Sand
- Bentonite Pellets
- Sampling Interval
- No recovery
- Sample saved for possible analysis
- Stabilized water level
- Ground water level encountered during drilling

ppm = parts per million

CGI = Combustible gas indicator

ALTON GEOSCIENCE
Pleasanton, California

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORING

PROJECT NO. 30-0065-05 DATE DRILLED 1/30/92
CLIENT Former Mobil Station 04-H6J
LOCATION 1024 Main Street, Pleasanton, CA
LOGGED BY C. Reinheimer APPROVED BY ___

WELL NO. SB-15

FIELD SKETCH OF BORING LOCATION

SEE FIGURE 2

DRILLING METHOD Continuous Flight Auger HOLE DIAM. 4"
SAMPLER TYPE California Modified Split-Spoon
CASING DATA NA
DRILLER Clear Heart Construction

DEPTH TO WATER	43'	
DATE	1/30/92	
TIME	4:00 PM	

BLOWS PER 1/2 FOOT (in.)	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (ft.)	Well Construction	USCS	PROFILE	DESCRIPTION
				0				CONCRETE ~4-5" thick.
				2				SUB-BASE: coarse angular gravel (1-2" diameter) in sand matrix.
		ND		4				ASPHALT: ~3" thick.
								SUB-BASE: very coarse angular gravel to cobbles (1-4" diameter) and common asphalt fragments.
		ND		6				
				8		ML		CLAYEY SILT: dark brown, damp; root traces.
9,10,11, 14				10				
	0	ND		12				CLAYEY SILT: medium brown, damp, dense; root traces.
13,13, 14								
7,7,8	<6			14				
7,10, 11,17	25			16				CLAYEY SILT: dense, trace sand; root traces.
8,8,10	<25	ND		18		CL		SILT: dark brown, damp, medium dense; trace sand and clay, common root traces.
6,9,11, 11	50			20				
7,10,9, 9	75			22		ML		CLAYEY SILT: dark brown, damp, medium dense; trace sand.
6,8,8	75	62						CLAYEY SILT: medium dense; no sand.
5,6,8				24				CLAYEY SILT: medium dense; <5% subrounded to subangular gravel clasts to1cm.
7,7,8,10	75			26		CL		SILTY CLAY: dark brown, moist, very stiff; rare root traces.
7,7,9	75			28		ML		CLAYEY SILT: dark brown, moist, medium dense.
7,7,10	125			30				SILTY SAND: medium tan, moist, medium dense; fine grained sand, rare gravel, common silty clay to clayey silt partings.
7,9,9,10	>500			32		SM		SILTY SAND: light yellowish tan, moist, medium dense; medium grained sand, Fe staining.
7,8,9	>500	4100		34				SILT: medium brown, moist, medium dense; <10% clay, Fe staining.
8,8,9	>500			36		ML		
7,8,8	>500	740		38		SM		SANDY SILT: medium brown, moist, medium dense; weakly bedded.
6,8,8								

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORING

PROJECT NO. 30-0065-05 DATE DRILLED 1/30/92
CLIENT Former Mobil Station 04-H6J
LOCATION 1024 Main Street, Pleasanton, CA
LOGGED BY C. Reinheimer APPROVED BY

WELL NO. SB-15

FIELD SKETCH OF BORING LOCATION

SEE FIGURE 2

DRILLING METHOD Continuous Flight Auger HOLE DIAM. 4"
SAMPLER TYPE California Modified Split-Spoon
CASING DATA NA
DRILLER Clear Heart Construction

DEPTH TO WATER	43'
DATE	1/30/92
TIME	4:00 PM

BLOWS PER 1/2 FOOT (in.)	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (ft.)	Well Construction	USCS	PROFILE	DESCRIPTION
				38		SM		SANDY SILT: medium brown, moist, medium dense; weakly bedded.
10,14,11	250			40		SW		SAND: greenish gray, [illegible], medium dense; well sorted medium grained sand.
8,11,9,10	300			42				SAND: greenish gray, [illegible] medium dense; interbedded with thin (~2") clayey silt lenses.
5,6,8	150			44		GP		GRAVELLY SAND: greenish gray, [illegible], medium dense; medium grained gravelly sand; ~15% gravel, interbedded with Fe stained tan clayey silt lenses (~1-2" thick), gravel to ~1.5" diameter.
5,7,7,8	0			46		CL		SILTY CLAY: medium brown to red-brown, [illegible] stiff; organics and Fe staining.
				48				

Borehole terminated at 46 feet below grade.

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORING

PROJECT NO. 30-0065-05 DATE DRILLED 1/31/92
CLIENT Former Mobil Station 04-H6J
LOCATION 1024 Main Street, Pleasanton, CA
LOGGED BY C. Reinheimer APPROVED BY

WELL NO. MW-9 (SB-14)

FIELD SKETCH OF BORING LOCATION

SEE FIGURE 2

TOP OF CASING ELEVATION 348.53'

DRILLING METHOD Hollow Stem Auger HOLE DIAM. 12"
SAMPLER TYPE 2-1/2" Continous Sampler
CASING DATA N/A
DRILLER Clear Heart Construction

DEPTH TO WATER	44'	
DATE	1/31/92	
TIME	11:00 AM	

BLOWS PER 1/2 FOOT (in.)	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (ft.)	Well Construction	USCS	PROFILE	DESCRIPTION
	0			0				CONCRETE ~8-10" thick.
				2				SUB-BASE: coarse angular gravel (1-2" diameter) in sand matrix.
	0	ND		4				ASPHALT: ~2-3" thick.
								SUB-BASE: very coarse gravel to cobbles (1-4" diameter) and common asphalt fragments.
	0	ND		6				(Drill cuttings)
				8		ML		CLAYEY SILT: dark brown, damp; organic matter, rootlets, insufficient recovery to sample.
	0			10				
				12				(Drill cuttings)
	0					CL		SILTY CLAY: dark brown, damp; insufficient recovery to sample.
				14				(Drill cuttings)
	0			16				SILTY CLAY: dark brown, damp; insufficient recovery.
	0			18				SILT: dark brown, damp; <5% clay, <5% rare gravel clasts to 3/4" diameter, organics, rootlets.
	0	ND		20		ML		
				22				
				24				CLAYEY SILT: dark to medium brown, damp; organic matter, rootlets, Fe staining.
	25			26		ML		CLAYEY SILT: ~5% gravel clasts to 1-1/2"diameter.
				28		CL		SILTY CLAY: medium brown, damp; <5% gravel, Fe staining.
	20	ND		30				SANDY SILT: medium brown, damp; Fe staining.
	20			32				
	<5					SM		
	25	ND		34				SANDY SILT: olive to greenish gray, damp.
				36				
	50			38				SANDY SILT: greenish tan, moist; rare gravel.

ALTON GEOSCIENCE
LOG OF EXPLORATORY BORING

PROJECT NO. 30-0065-05 DATE DRILLED 1/31/92
CLIENT Former Mobil Station 04-H6J
LOCATION 1024 Main Street, Pleasanton, CA
LOGGED BY C. Reinheimer APPROVED BY

WELL NO. MW-9 (SB-14)

FIELD SKETCH OF BORING LOCATION

SEE FIGURE 2

TOP OF CASING ELEVATION 348.53'

DRILLING METHOD Hollow Stem Auger HOLE DIAM. 12"
SAMPLER TYPE 2-1/2" Continuous
CASING DATA NA
DRILLER Clear Heart Construction

DEPTH TO WATER	44'
DATE	1/31/92
TIME	11:00 AM

BLOWS PER 1/2 FOOT (in.)	CGI(ppm)	TPH-G (ppm)	SAMPLE	DEPTH (ft.)	Well Construction	USCS	PROFILE	DESCRIPTION
	<25			38		SM		SILTY SAND: greenish gray, moist; fine grained sand, <5% gravel.
	<5	ND		40		CL		SILTY CLAY: medium tan, moist; abundant Fe staining.
	0			42				SILTY CLAY: tan, moist; ~10% common gravel clasts to 1-1/2" diameter, up to 5% organics, abundant Fe staining.
				44	4" diam. Sch. 40 PVC 0.010" slot			CLAYEY SILT: tan to medium brown, wet; gravel present, common organics to 5%, Fe staining.
	10			46		ML		
				48		GP		GRAVELLY SAND: grayish brown, saturated; coarse grained sand, gravel to 1-1/2" diameter.
						CL		SILTY CLAY: tan, wet; Fe staining.
				50		GP		GRAVELLY SAND: gray, saturated; coarse grained sand, gravel to1-1/2" diameter.
				52		CL		SILTY CLAY: tan, wet; gravel to 1-1/2" diameter, Fe staining.
				54	End Cap	GP		SANDY GRAVEL: grayish black, saturated; very coarse grained sand, gravel to 2-1/4" diameter.
				56				Borehole terminated at 56 feet below grade.

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588 • (510) 484-2600

17 January 1992

Alton Geoscience
1000 Burnett Avenue, Suite 140
Concord, CA 94520

Gentlemen:

Enclosed is Drilling permit 92029 for a monitoring well construction project at 1024 Main Street in Pleasanton for Mobil Oil Corporation.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number.

If you have any questions, please contact Wyman Hong or me at 484-2600.

Very truly yours,

Craig A. Mayfield

Craig A. Mayfield
Water Resources Engineer

WH:mm
Enc.

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94566 • (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

1) LOCATION OF PROJECT 1024 Main Street
Pleasanton CA

2) CLIENT
Name Mobil Oil Corp.
Address 876-B Southampton Rd Phone
City Benicia CA Zip 94510

3) APPLICANT
Name Alton Geoscience
1000 Burnett Ave #140
Address Phone (510) 682-7582
City Concord CA Zip 94521

4) DESCRIPTION OF PROJECT
Water Well Construction ___ Geotechnical Investigation
Cathodic Protection ___ General
Well Destruction ___ Contamination X

5) PROPOSED WATER WELL USE
Domestic ___ Industrial ___ Irrigation ___
Municipal ___ Monitoring X Other ___

6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. 467904

WELL PROJECTS
Drill Hole Diameter 12 in. Maximum Depth 55 ft.
Casing Diameter 4 in. Number 2
Surface Seal Depth 0-3 ft.
Vapor extraction well.

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum Depth ___ ft.
Hole Diameter ___ in.

7) ESTIMATED STARTING DATE 1-27-92
ESTIMATED COMPLETION DATE 1-31-92

(8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 1-14-92

FOR OFFICE USE

PERMIT NUMBER 92029
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 16 Jan 92
Wyman Hong

219

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

APPENDIX F

ALTON GEOSCIENCE
GENERAL FIELD PROCEDURES
FOR
GROUND WATER MONITORING WELL DEVELOPMENT, SAMPLING, AND WELLHEAD SURVEY

ALTON GEOSCIENCE
GENERAL FIELD PROCEDURES
FOR
GROUND WATER MONITORING WELL DEVELOPMENT, SAMPLING, AND WELLHEAD SURVEY

Ground Water Monitoring Well Development

New ground water monitoring wells were initially developed to clean the well and to stabilize the sand, gravel, and aquifer materials around the perforated section of the well. Prior to placement of seal materials in the remaining annular space of the wells, the sand pack was stabilized using a surge block. Well development was conducted using one of several acceptable methods, such as bailing, mechanical or air lift pumping, surging, or swabbing. Well development was continued until the well was thoroughly developed and free of sand, silt, and turbidity.

Water generated from the development process was placed into labeled 55-gallon drums, pending laboratory results of the ground water samples, to determine the appropriate disposal method. Disposal of the water conformed to the applicable requirements.

Ground Water Monitoring Well Sampling

Prior to well sampling, ground water in each well was monitored for the presence/absence of free product or sheen. The depth to ground water was measured with an accuracy of 0.01 foot from the top of the PVC well casing using an electronic sounder.

To ensure the ground water sample was representative of the aquifer, the well was purged of 4 to 10 well casing volumes before sample collection. This purging was accomplished using a clean bailer or pump.

The ground water samples were collected using a clean bailer, and then carefully transferred into the appropriate clean, glass, laboratory supplied containers. The sampler wore Nitrile gloves at all times during purging and well sampling. The water samples were handled and preserved in accordance with RWQCB guidelines. The samples were clearly labeled with the well number, site identification, date and time of sample collection, and sampler's initials, and transported to a California-certified laboratory following proper preservation and chain of custody protocol.

RON ARCHER
CIVIL ENGINEER, INC.

CONSULTING • PLANNING • DESIGN • SURVEYING

4133 Mohr Ave., Suite E • Pleasanton, CA 94566
(415) 462-9372

JOB NO. 1739

OCTOBER 24,1990
* REVISED: FEBRUARY 3, 1992

PLAT SHOWING EXISTING MONITOR WELLS AT THE FORMER MOBIL STATION NO. 10-H6J, LOCATED AT 1024 MAIN STREET AT STANLEY BOULEVARD, CITY OF PLEASANTON, ALAMEDA COUNTY, CALIFORNIA.

FOR: ALTON GEOSCIENCE
PROJECT NO.30-0065-05

BENCHMARK:
A BRASS DISC STAMPED P-1257 ABOUT 0.15 MILE SOUTH ALONG SANTA RITA ROAD FROM THE CROSSING OF THE WESTERN PACIFIC RAILROAD, AT THE SOUTHWEST CORNER AND IN THE DECK OF BRIDGE ACROSS ARROYO DEL VALLE CANAL, 27.5 FEET WEST OF THE CENTER LINE OF ROAD, 6.7 FEET NORTH OF THE SOUTH END OF THE WEST CONCRETE BASE FOR GUARDRAIL, 0.8 FEET EAST OF GUARDRAIL BASE, LEVEL WITH THE DECK OF THE BRIDGE AND 6 FEET EAST OF THE WEST END OF SOUTH CONCRETE BRIDGE ABUTMENT. ELEVATION TAKEN AS 351.991

MONITOR WELL DATA TABLE

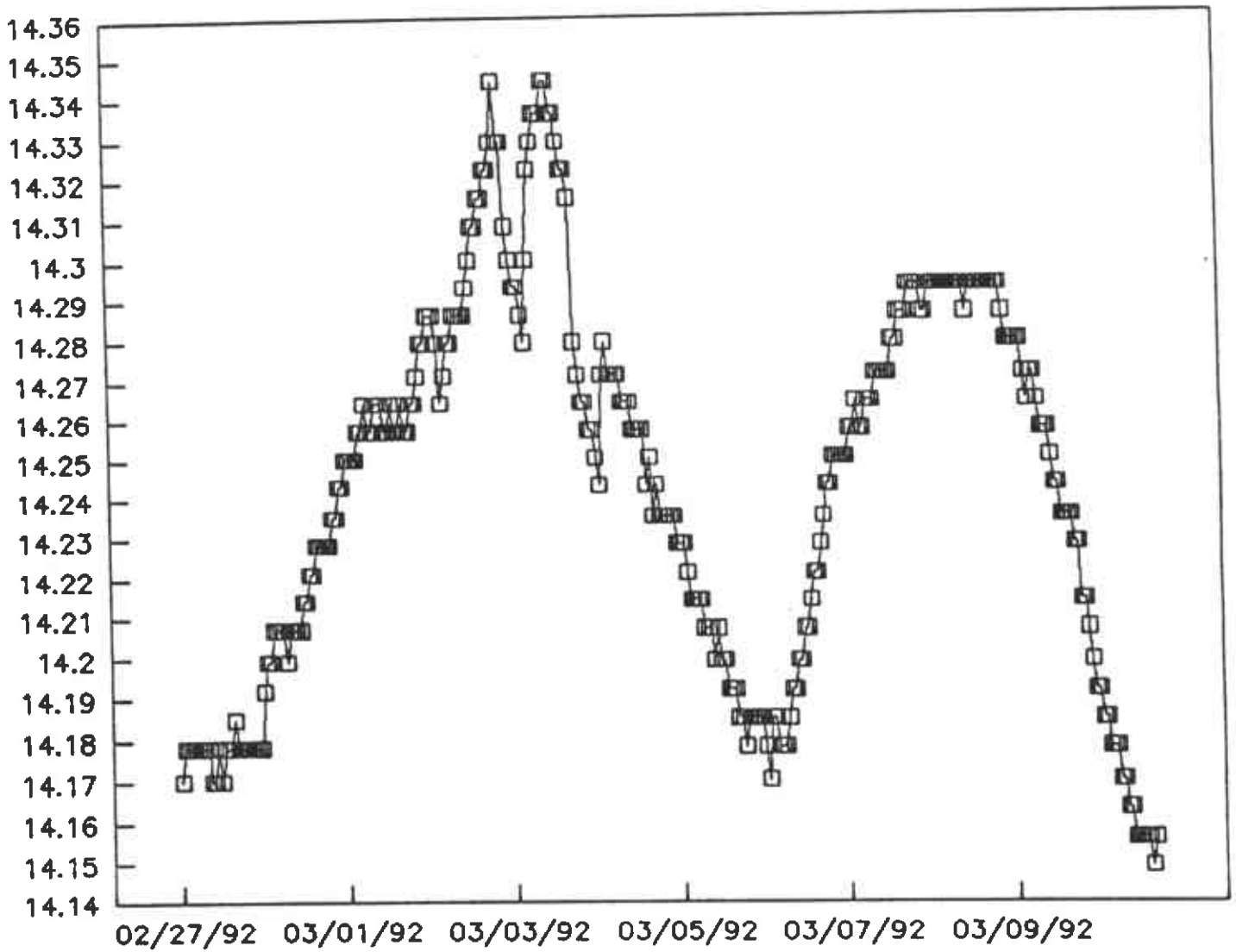
	WELL NO.	ELEVATION	DESCRIPTION
	MW1	348.03	TOP OF PVC CASING
		348.49	TOP OF BOX
	MW2	348.45	TOP OF PVC CASING
		348.72	TOP OF BOX
*	MW3	347.97	TOP OF PVC CASING
		348.27	TOP OF BOX
	MW4	348.07	TOP OF PVC CASING
		348.46	TOP OF BOX
	MW5	347.97	TOP OF PVC CASING
		348.37	TOP OF BOX
	MW6	348.23	TOP OF PVC CASING
		348.61	TOP OF BOX
	MW7	347.90	TOP OF PVC CASING
		348.40	TOP OF BOX
	MW8	348.90	TOP OF PVC CASING
		349.25	TOP OF BOX
*	MW9	348.53	TOP OF PVC CASING
		349.06	TOP OF BOX

APPENDIX G

MONITORING WELL DATA LOGS AND AQUIFER TESTING

HEIGHT OF WATER COLUMN (feet)

MW-6, 2/27/1992 to 3/1/1992

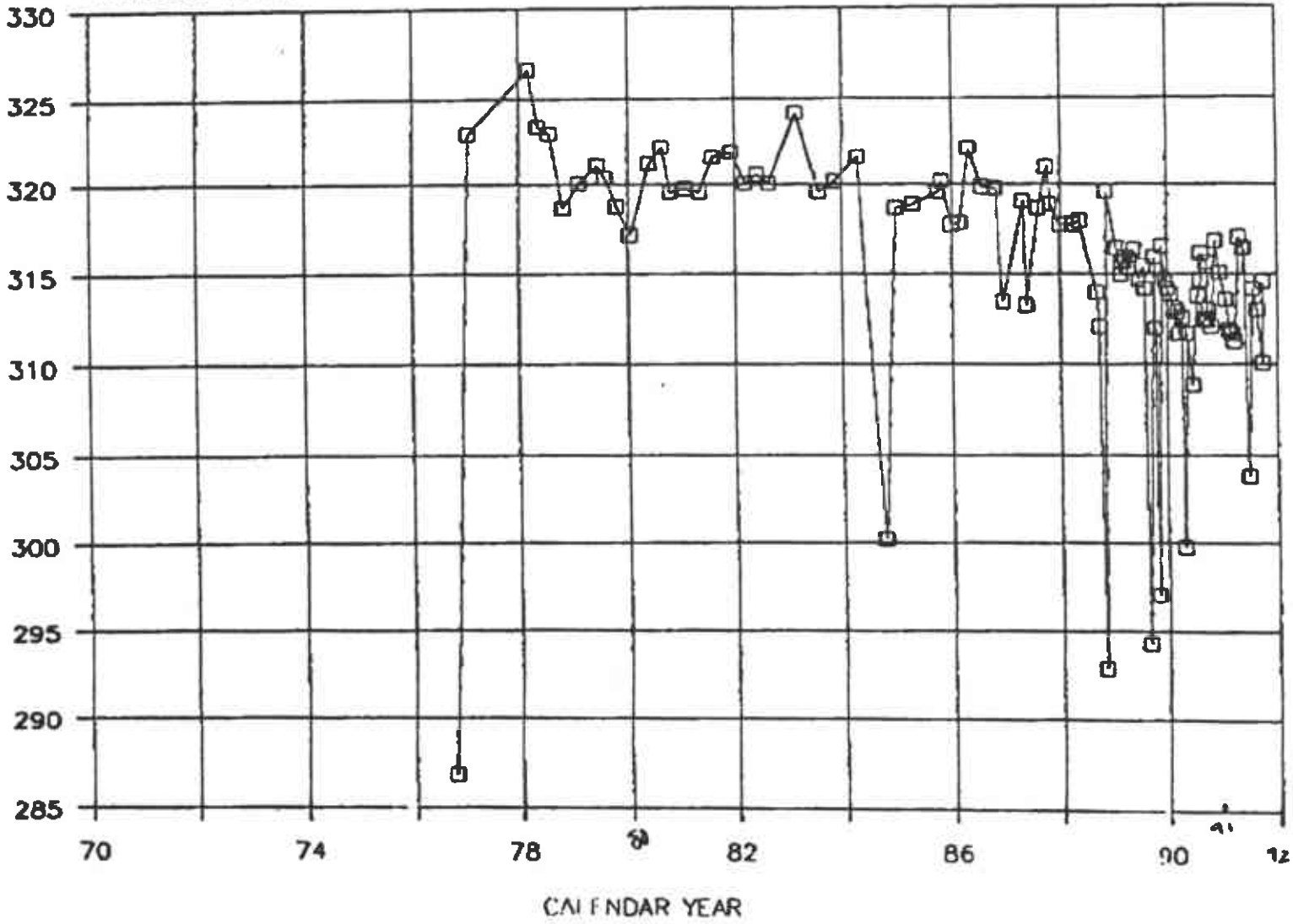


ZONE 7
WATER RESOURCES MONITORING
GROUNDWATER HYDROGRAPH

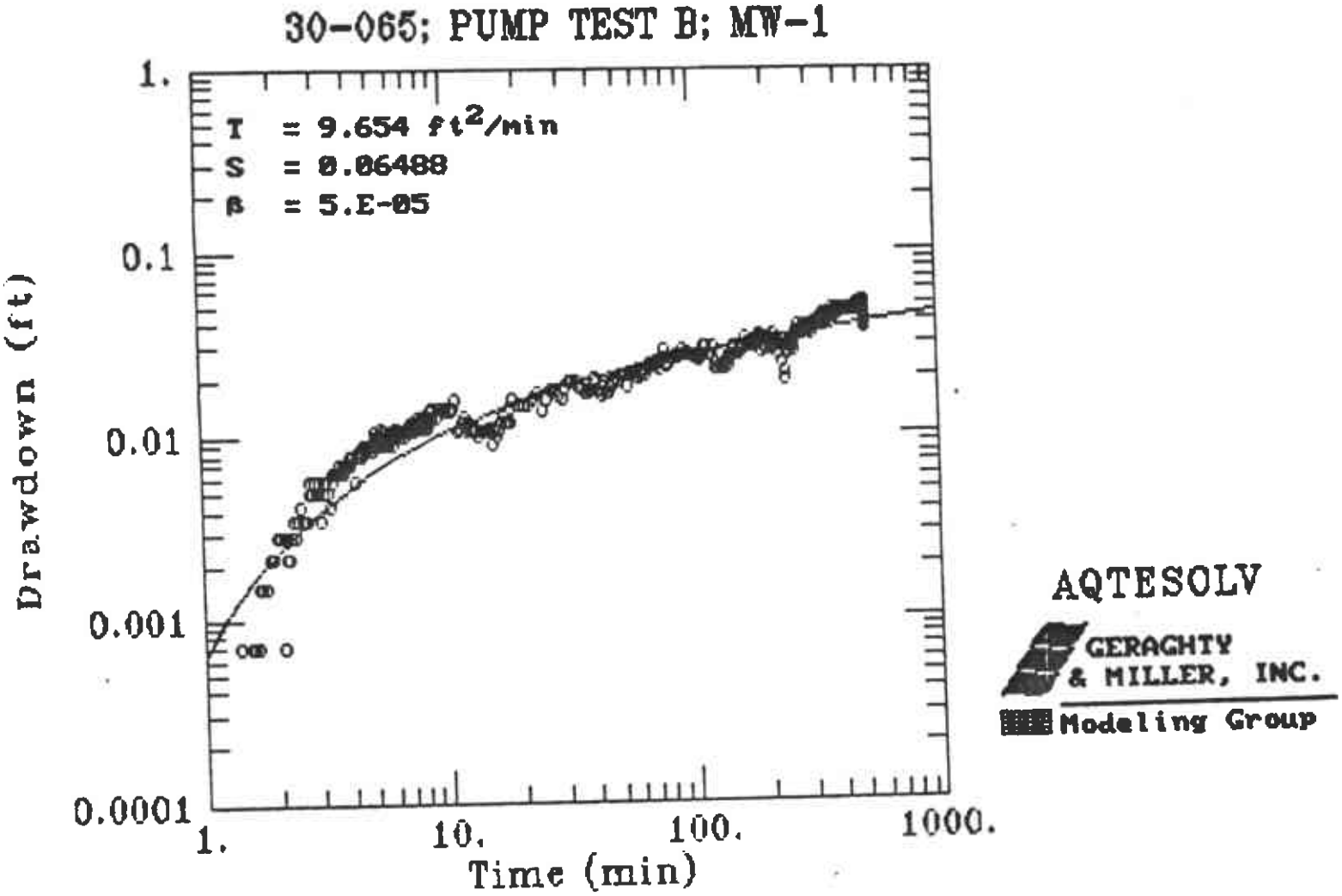
WELL 3S/1E 16P 5

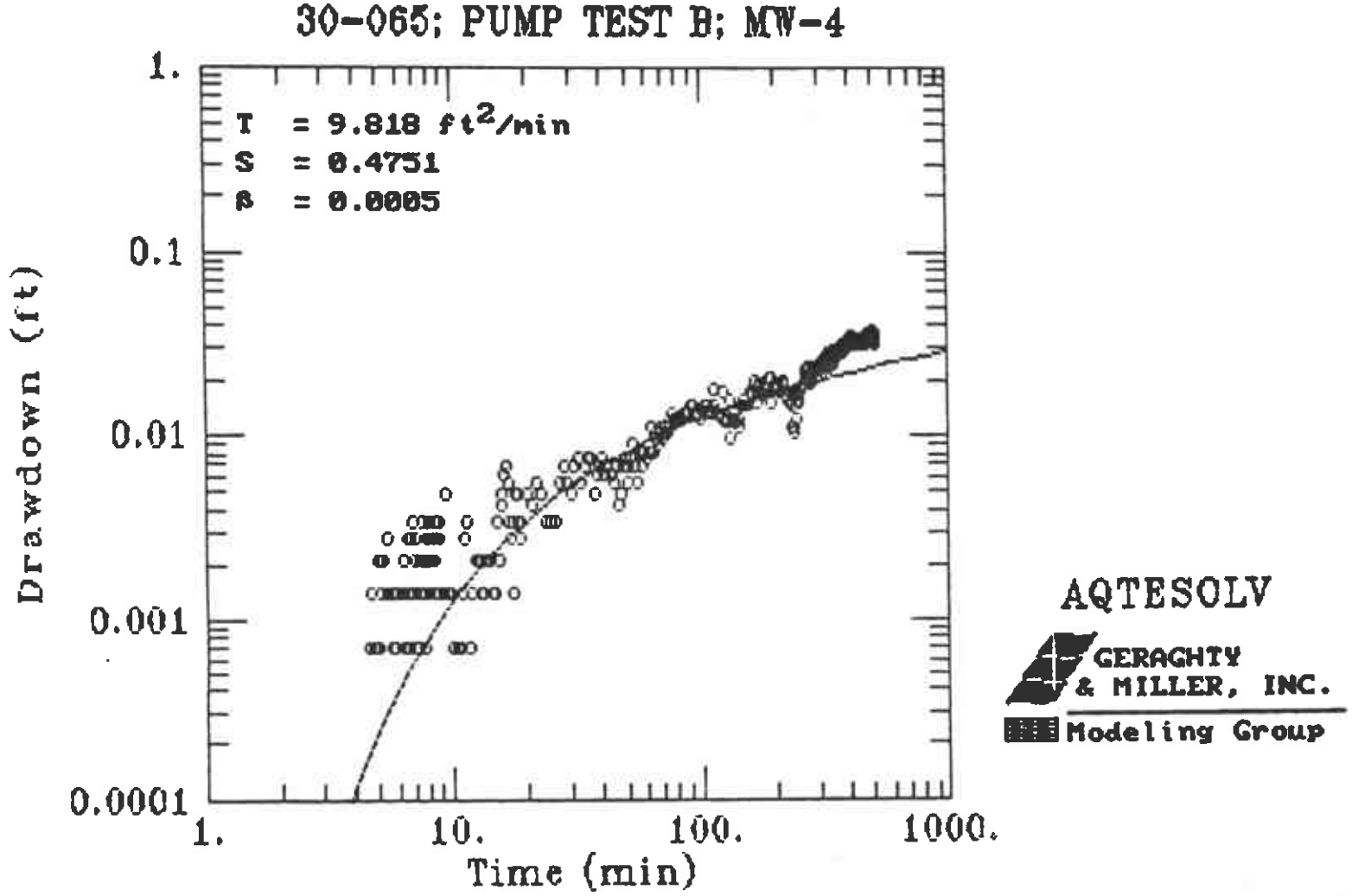
WELL DEPTH 75

WELLHEAD ELEVATION 352



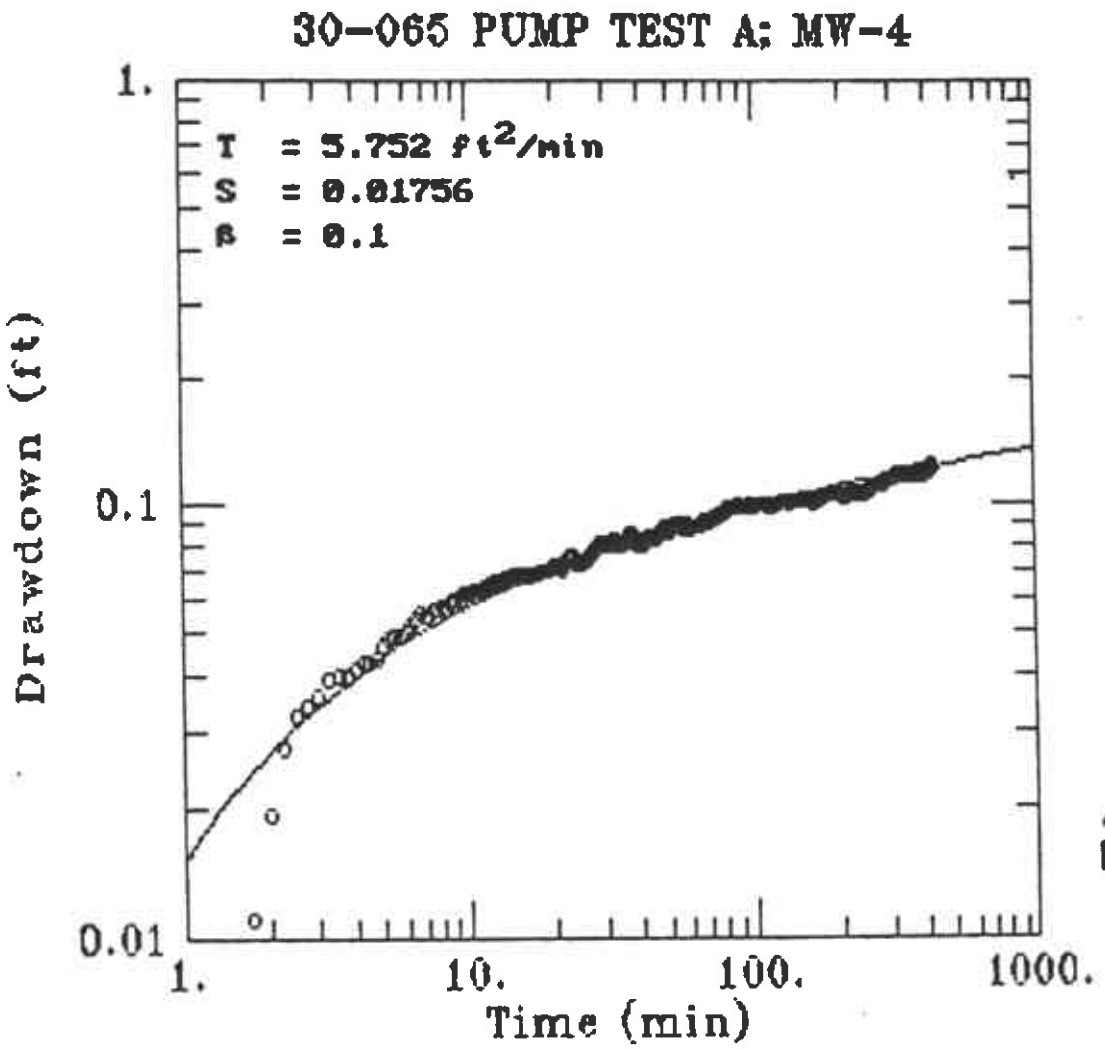
3S/1E 16P 5


30-065; PUMP TEST B; MW-1
T = 9.654 ft²/min
S = 0.06488
β = 5.E-05
1.
0.1
0.01
0.001
0.0001
Drawdown (ft)
1.
10.
100.
1000.
Time (min)
AQTESOLV
GERAGHTY & MILLER, INC.
Modeling Group


30-065; PUMP TEST B; MW-4
T = 9.818 ft²/min
S = 0.4751
β = 0.0005
1.
0.1
0.01
0.001
0.0001
Drawdown (ft)
1.
10.
100.
1000.
Time (min)
AQTESOLV
GERAGHTY & MILLER, INC.
Modeling Group

APPENDIX H

LABORATORY REPORTS
AND
CHAIN OF CUSTODY DOCUMENTATION



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Inside Lube Room

Alton Geoscience	Client Project ID:	Mobil #10-H&J/30-0065-05	Sampled: Feb 4, 1992
5870 Stoneridge Drive, Suite 6	Sample Descript.:	Water, MW-9	Received: Feb 5, 1992
Pleasanton, CA 94588	Analysis Method:	EPA 5030/ 8015/8020	Analyzed: Feb 5, 1992
Attention: Cherie D' Andrea	Lab Number:	202-0129	Reported: Feb 14, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS WITH BTEX DISTINCTION (EPA 8015/8020)

Analyte	Detection Limit µg/L (ppb)	Sample Results µg/L (ppb)
Low to Medium Boiling Point Hydrocarbons	300	6,000
Benzene	3.0	3,000
Toluene	2.5	740
Ethyl Benzene	2.5	1,200
Xylenes	3.0	2,500

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chiello
Project Manager

SEQUOIA ANALYTICAL

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Alton Geoscience
6870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/30-0065-05
Sample Descript: Water, MW-9
Analysis Method: EPA 5030/8010
Lab Number: 202-0129

Sampled: Feb 4, 1992
Received: Feb 5, 1992
Analyzed: Feb 13, 1992
Reported: Feb 14, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	25	N.D.
Bromoform	25	N.D.
Bromomethane	25	N.D.
Carbon tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	25	N.D.
2-Chloroethylvinyl ether	25	N.D.
Chloroform	25	N.D.
Chloromethane	25	N.D.
Dibromochloromethane	25	N.D.
1,3-Dichlorobenzene	25	N.D.
1,4-Dichlorobenzene	25	N.D.
1,2-Dichlorobenzene	25	N.D.
1,1-Dichloroethane	25	56
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	25	N.D.
trans-1,3-Dichloropropene	25	N.D.
Methylene chloride	250	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	25	N.D.
Trichlorofluoromethane	25	N.D.
Vinyl chloride	25	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/30-0065-05
Sample Descript: Water
Analysis Method: California LUFT Manual, 12/87
First Sample #: 202-0129

Sampled: Feb 4, 1992
Received: Feb 5, 1992

Analyzed: Feb 9, 1992
Reported: Feb 14, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/L
202-0129	MW-9	N.D.

Detection Limits:	0.050

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Criello
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/30-0065-05

QC Sample Group: 202-0129

Reported: Feb 14, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead	Oil and Grease
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT	EPA 413.2
Analyst:	K.E.	K.E.	K.E.	K.E.	T. Marcarenas	D. Newcomb
Reporting Units:	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L
Date Analyzed:	Feb 5, 1992	Feb 5, 1992	Feb 8, 1992	Feb 5, 1992	Feb 8, 1992	Feb 4, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	202-0129	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60	5.0	100
Conc. Matrix Spike:	16	16	16	49	5.6	93
Matrix Spike % Recovery:	80	80	80	82	112	93
Conc. Matrix Spike Dup.:	18	18	18	55	5.3	95
Matrix Spike Duplicate % Recovery:	90	90	90	92	106	95
Relative % Difference:	12	12	12	8.6	5.5	2.0

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} = \frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$$

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Charle D' Andrea

Client Project ID: Mobil #10-H6J/30-0065-06
QC Sample Group: 202-0129
Reported: Feb 14, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	Feb 12, 1992	Feb 12, 1992	Feb 12, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	8.1	9.3	10
Matrix Spike % Recovery:	81	93	100
Conc. Matrix Spike Dup.:	8.2	9.7	10
Matrix Spike Duplicate % Recovery:	82	97	100
Relative % Difference:	1.2	4.2	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Alton Geoscience	Site SS #: 10-H6J	Phase of Work:
Address: 1000 Burnett Ave #140	Mobil Site Address: 1024 Main St Pleasanton	☐ A. Emrg. Response
City: Concord State: CA Zip Code: 94521	Mobil Engineer: Ed Hoefker	☐ B. Site Assessment
Telephone: 510 682-1582 FAX #: 682 892	Consultant Project #: 30-0065.05	☐ C. Remediation
Project Contact: C. D'Andrea Sampled by: Chris Reinheimer	Sequoia's Work Order Release #:	☒ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days)
☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2	HVOC's 706	Organic Lead			Comments
1. MW-9	2-4-92	WATER	10	202069A5	X			X	X	X			
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

Relinquished By:	Date: 2-4-92	Time: 9:15	Received By:	Date: 2-5-92	Time: 9:40 AM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
	Date:	Time:	Received By:	Date:	Time:

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

SEP - 3 1991

Alton Geoscience
1000 Burnett Street, Suite 140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #30-0065, 1024 Main St. Pleasanton
Matrix Descript: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 108-1051 AB

Sampled: Aug 21, 1991
Received: Aug 21, 1991
Analyzed: Aug 23, 1991
Reported: Aug 28, 1991

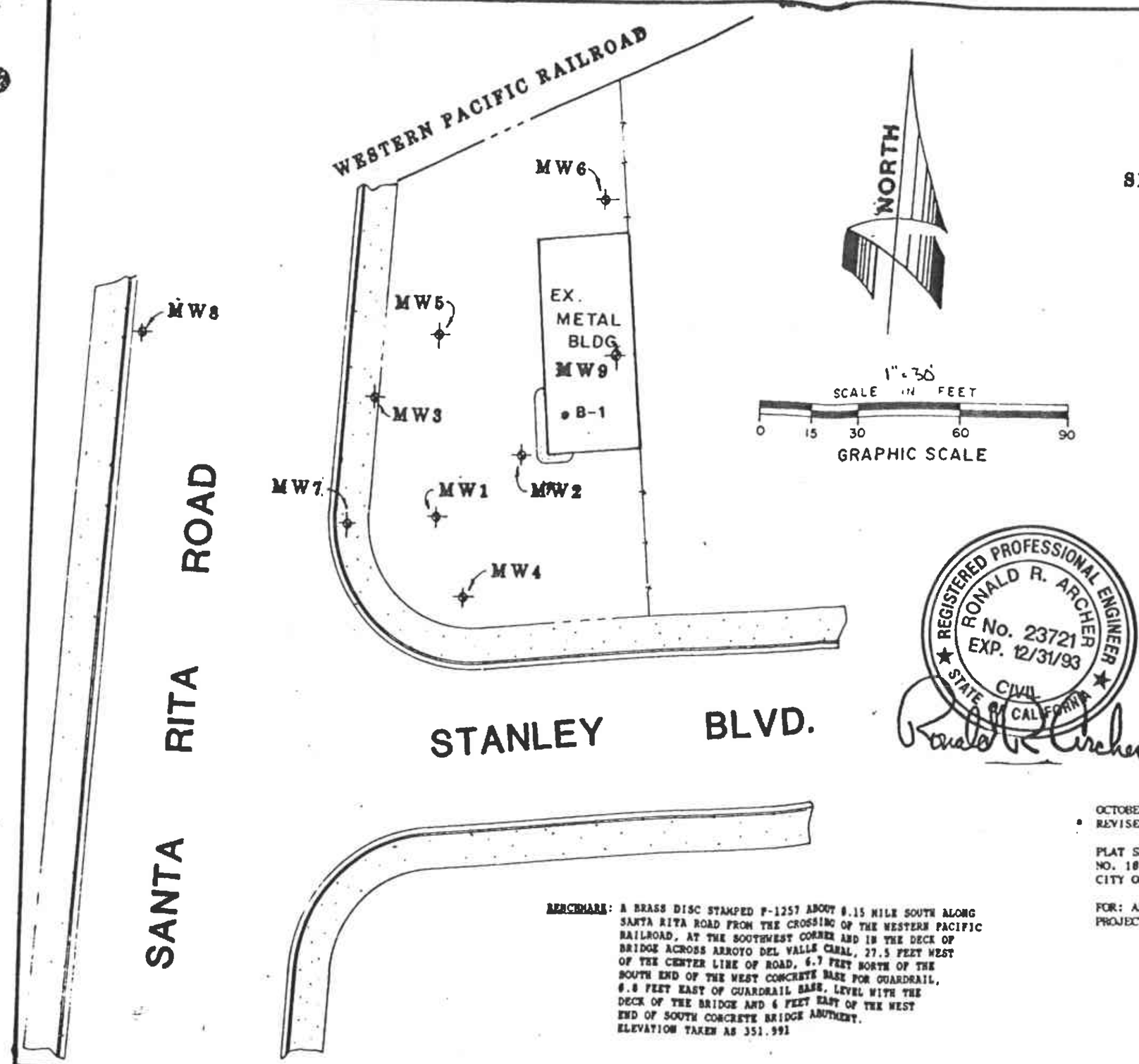
TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
1081051 AB	CPT-4	360	10	9.0	2.9	8.8
1081052 AB	CPT-9B	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		30	0.30	0.30	0.30	0.30

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager



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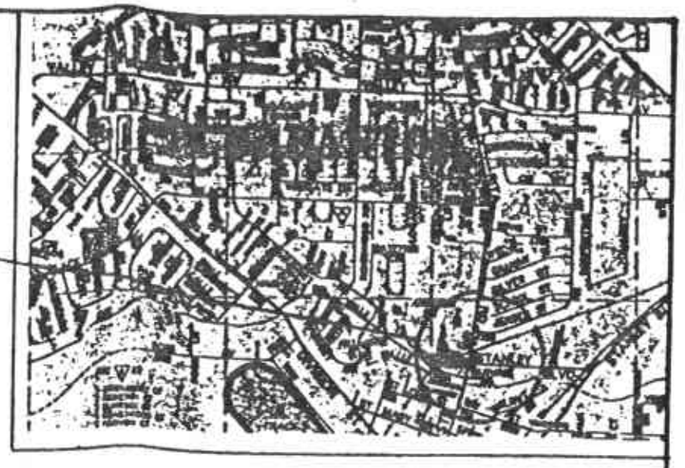
0 15 30 60 90
GRAPHIC SCALE



VICINITY MAP
NO SCALE

MONITOR WELL DATA TABLE

WELL NO.	ELEVATION	DESCRIPTION
MW1	348.83 348.49	TOP OF PVC CASING TOP OF BOX
MW2	348.45 348.72	TOP OF PVC CASING TOP OF BOX
* MW3	347.97 348.27	TOP OF PVC CASING TOP OF BOX
MW4	348.87 348.46	TOP OF PVC CASING TOP OF BOX
MW5	347.87 348.37	TOP OF PVC CASING TOP OF BOX
MW6	348.23 348.61	TOP OF PVC CASING TOP OF BOX
MW7	347.98 348.48	TOP OF PVC CASING TOP OF BOX
MW8	348.98 349.25	TOP OF PVC CASING TOP OF BOX
* MW9	348.53 349.06	TOP OF PVC CASING TOP OF BOX

REGISTERED PROFESSIONAL ENGINEER
RONALD R. ARCHER
No. 23721
EXP. 12/31/93
CIVIL
STATE OF CALIFORNIA

BENCHMARK: A BRASS DISC STAMPED F-1257 ABOUT 0.15 MILE SOUTH ALONG SANTA RITA ROAD FROM THE CROSSING OF THE WESTERN PACIFIC RAILROAD, AT THE SOUTHWEST CORNER AND IN THE DECK OF BRIDGE ACROSS ARROYO DEL VALLE CANAL, 27.5 FEET WEST OF THE CENTER LINE OF ROAD, 6.7 FEET NORTH OF THE SOUTH END OF THE WEST CONCRETE BASE FOR GUARDRAIL, 6.8 FEET EAST OF GUARDRAIL BASE, LEVEL WITH THE DECK OF THE BRIDGE AND 6 FEET EAST OF THE WEST END OF SOUTH CONCRETE BRIDGE ABUTMENT.
ELEVATION TAKEN AS 351.991

OCTOBER 24,1990
* REVISED: FEBRUARY 3, 1992

JOB NO. 1739

PLAT SHOWING EXISTING MONITOR WELLS AT THE FORMER MOBIL STATION NO. 10-116J, LOCATED AT 1024 MAIN STREET AT STANLEY BOULEVARD, CITY OF PLEASANTON, ALAMEDA COUNTY, CALIFORNIA.

FOR: ALTON GEOSCIENCE
PROJECT NO.38-8865-85

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Alton Geoscience
1000 Burnett Street, Suite 140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #30-0065, 1024 Main St.

QC Sample Group: 1081051-52

Reported: Aug 28, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA8015/8020	EPA8015/8020	EPA8015/8020	EPA8015/8020
Analyst:	RH/JF	RH/JF	RH/JF	RH/JF
Reporting Units:	ug/l	ug/l	ug/l	ug/l
Date Analyzed:	Aug 23, 1991	Aug 23, 1991	Aug 23, 1991	Aug 23, 1991
QC Sample #:	108-0586	108-0586	108-0586	108-0586
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	22	20	22	71
Matrix Spike % Recovery:	110	100	110	120
Conc. Matrix Spike Dup.:	21	19	20	67
Matrix Spike Duplicate % Recovery:	110	95	100	110
Relative % Difference:	4.7	5.1	9.5	5.8

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

ALTON GEOSCIENCE
1000 BURNETT ST., #140
CONCORD, CA 94520 (415) 682-1582

CHAIN of CUSTODY RECORD

PAGE 1 of 1

DATE: 8-16-91

RESULTS DUE BY:

PROJECT NUMBER: 30-0065 PROJECT NAME AND ADDRESS: Mobil 1024 Main Pleasanton

PROJECT MANAGER: Cherie D'Andrea SAMPLER'S SIGNATURE: [signature] LABORATORY:

REMARKS OR SPECIAL INSTRUCTIONS:
DIRECT BILLING TO MOBIL OIL
10 DAY T.A.T.
NOTE: PLASTIC LITERS ARE NOT FULL

NOTE: PLEASE INDICATE VERBAL REQUESTS FOR ADDITIONAL ANALYSES IN THIS BOX.

SAMPLE NUMBER	SAMPLE DATE/TIME	LOCATION/ DESCRIPTION	SAMPLE MATERIAL	SAMPLE TYPE: GRAB	SAMPLE TYPE: COMP.	NUMBER OF CONTAINERS	SAMPLE PREP. 3510: SOLV. EXTR.	SAMPLE PREP. 3810: HEAD SPACE	SAMPLE PREP. 5030: PURGE & TRAP	SOIL ANALYSIS 418.1: TPHC (IR)	SOIL ANALYSIS 8010: HALOCARBONS	SOIL ANALYSIS 8020: BTXE	SOIL ANALYSIS DHS METHOD: TPHC (GC)	SOIL ANALYSIS 7420: TOTAL Pb	WATER ANALYSIS 418.1: TPHC (IR)	WATER ANALYSIS 601: HALOCARBONS	WATER ANALYSIS 602: BTXE	WATER ANALYSIS DHS METHOD: TPHC (GC)	WATER ANALYSIS 7421: TOTAL Pb	WATER ANALYSIS 8020/8015 TPH-d/BTXE
CPT-4	8/21 9:00A		WATER	↓						10810051					AF				X	X
CPT-9B CPT-9	2:15P		↓	↓						10810052					AF				X	X

TOTAL NO. OF CONTAINERS:

RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	METHOD OF SHIPMENT:
[signature]	[signature]	8/21/91	
RELINQUISHED BY: [signature]	RECEIVED BY: [signature]	DATE/TIME: 8/21/91 3:30	SHIPPED BY:
RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	COURIER:

SEQUOIA ANALYTICAL
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(415) 686-9600 • FAX (415) 686-9689

SEP - 3 1991

Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-0065
Matrix Descript: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 108-0757 AE

Sampled: 8/14,15/91
Received: Aug 16, 1991
Analyzed: Aug 21, 1991
Reported: Aug 27, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
108-0757 AE	CPT-7	670	8.6	3.2	1.3	1.7
108-0758 AE	CPT-6	N.D.	0.34	0.41	N.D.	0.46
108-0759 AE	CPT-8	N.D.	N.D.	0.34	N.D.	0.40
108-0760 AC	CPT-2	N.D.	N.D.	N.D.	N.D.	N.D.
108-0761 AE	PCPT-3	360	16	32	5.8	50
108-0762 AE	PCPT-1	88	4.0	0.32	0.39	0.49
Detection Limits:		30	0.30	0.30	0.30	0.30

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Alton Geoscience
1000 Burnett Street, Suite 140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #30-0065, 1024 Main St.
Sample Descript: Water Pleasanton
Analysis for: EPA 7421-Total Lead
First Sample #: 108-1051

Sampled: Aug 21, 1991
Received: Aug 21, 1991
Extracted: Aug 27, 1991
Analyzed: Aug 27, 1991
Reported: Aug 28, 1991

LABORATORY ANALYSIS FOR: EPA 7421-Total Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
108-1051	CPT-4	0.0050	0.075
108-1052	CPT-9B	0.0050	0.0099

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

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1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Alton Geoscience
1000 Burnett Street, Suite 140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #30-0065, 1024 Main St.

QC Sample Group: 1081051-52

Reported: Aug 28, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Lead
Method:	EPA 7421
Analyst:	S.Foster
Reporting Units:	mg/L
Date Analyzed:	Aug 27, 1991
QC Sample #:	108-0023
Sample Conc.:	N.D.
Spike Conc. Added:	0.10
Conc. Matrix Spike:	0.086
Matrix Spike % Recovery:	86
Conc. Matrix Spike Dup.:	0.091
Matrix Spike Duplicate % Recovery:	91
Relative % Difference:	5.6

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-0065

QC Sample Group: 1080757-62

Reported: Aug 27, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA8015/8020	EPA8015/8020	EPA8015/8020	EPA8015/8020
Analyst:	RH/JF	RH/JF	RH/JF	RH/JF
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Aug 21, 1991	Aug 21, 1991	Aug 21, 1991	Aug 21, 1991
QC Sample #:	108-0872	108-0872	108-0872	108-0872
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	20	20	21	65
Matrix Spike % Recovery:	100	100	110	110
Conc. Matrix Spike Dup.:	21	20	22	67
Matrix Spike Duplicate % Recovery:	110	100	110	110
Relative % Difference:	4.9	0	4.7	3.0

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$

SEQUOIA ANALYTICAL
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(415) 686-9600 • FAX (415) 686-9689

Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-0065

QC Sample Group: 1080757-62

Reported: Aug 27, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Lead

Method:	EPA 7421
Analyst:	T. Mascarenas
Reporting Units:	mg/L
Date Analyzed:	Aug 26, 1991
QC Sample #:	108-1083
Sample Conc.:	N.D.
Spike Conc. Added:	0.0050
Conc. Matrix Spike:	0.0039
Matrix Spike % Recovery:	78
Conc. Matrix Spike Dup.:	0.0040
Matrix Spike Duplicate % Recovery:	80
Relative % Difference:	2.5

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Julia R. Malerstein
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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Alton Geoscience	Client Project ID:	30-0065	Sampled: 8/14,15/91
1000 Burnett St., #140	Sample Descript:	Water	Received: Aug 16, 1991
Concord, CA 94520	Analysis for:	EPA 7421- Lead	Extracted: Aug 26, 1991
Attention: Cherie D'Andrea	First Sample #:	108-0757 F	Analyzed: Aug 26, 1991
			Reported: Aug 27, 1991

LABORATORY ANALYSIS FOR: EPA 7421- Lead

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
108-0757 F	CPT-7	0.0050	N.D.
108-0758 F	CPT-6	0.0050	0.038
108-0759 F	CPT-2	0.0050	0.040
108-0761 F	PCPT-3	0.0050	0.080
108-0762 F	PCPT-1	0.0050	0.020

Analytes reported as N.D. were not present above the stated limit of detection.

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Julia R. Malerstein
Project Manager

ALTON GEOSCIENCE
1000 BURNETT ST., #140
CONCORD, CA 94520 (415) 682-1582

CHAIN of CUSTODY RECORD

PAGE 1 of 1

DATE: 8/16/91
RESULTS DUE BY: 8/23/91

PROJECT NUMBER: 30-0065
PROJECT NAME AND ADDRESS: Former Mobil S.S. 1024 Main St. Pleasanton
PROJECT MANAGER: CHERIE D'ANDREA
SAMPLER'S SIGNATURE: Cherie D'Andrea
LABORATORY: Sequoia

REMARKS OR SPECIAL INSTRUCTIONS:
DIRECT BILLING TO MOBIL OIL-
5 DAY T.A.T.
NOTE: Plastic Liters are not full.

NOTE: PLEASE INDICATE VERBAL REQUESTS FOR ADDITIONAL ANALYSES IN THIS BOX.

SAMPLE NUMBER	SAMPLE DATE/TIME	LOCATION/ DESCRIPTION	SAMPLE MATERIAL	SAMPLE TYPE: GRAB	SAMPLE TYPE: COMP.	NUMBER OF CONTAINERS
	8/14/91 11:20	CPT-7	Water			5 VOAs 1 P.L.
	8/14/91 11:15	CPT-6	Water			5 VOAs 1 P.L.
	8/14/91 14:15	CPT-8	Water			5 VOAs 1 P.L.
	8/15/91 6:05	CPT-2	Water			5 VOAs
	8/15/91 11:00	PCPT-3	Water			5 VOAs 1 P.L.
	8/15/91 2:45	PCPT-1	Water			5 VOAs 1 P.L.
						TOTAL NO. OF CONTAINERS:

	SAMPLE PREP.				SOIL ANALYSIS						WATER ANALYSIS					
	3510: SOLV. EXTR.	3810: HEAD SPACE	5030: PURGE & TRAP		418.1: TPHC (IR)	8010: HALOCARBONS	8020: BTXE / TPH-G	DHS METHOD: TPHC (GC)	7420: TOTAL Pb		418.1: TPHC (IR)	601: HALOCARBONS	602: BTXE	DHS METHOD: TPHC (GC)	7421: TOTAL Pb	
							X		X		1080		757			
							X		X				758			
							X		X				759			
							X						760			
							X		X				761			
							X		X				762			

RELINQUISHED BY: Cherie D'Andrea	RECEIVED BY:	DATE/TIME: 8/16 1345	METHOD OF SHIPMENT:
RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	SHIPPED BY:
RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	COURIER:

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(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled:	Jan 8, 1992
1000 Burnett St., #140	Matrix Descript:	Water	Received:	Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jan 9, 1992
Attention: Cherie D'Andrea	First Sample #:	201-0197	Reported:	Jan 17, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
201-0197	MW-4	3,400	600	880	220	1,100
201-0200	MW-3	680	8.9	26	8.5	72
Detection Limits:		**60**	**0.60**	**0.60**	**0.60**	**0.60**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Scott A. Chieffo
Project Manager

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Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled:	Jan 8, 1992
1000 Burnett St., #140	Matrix Descript:	Water	Received:	Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jan 9, 1992
Attention: Cherie D'Andrea	First Sample #:	201-0198	Reported:	Jan 17, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
201-0198	MW-1	2,400	270	370	18	340
Detection Limits:		**300**	**3.0**	**3.0**	**3.0**	**3.0**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Arthur G. Burton
Laboratory Director

2010197.ALG <11>

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Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled:	Jan 8, 1992
1000 Burnett St., #140	Matrix Descript:	Water	Received:	Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jan 9, 1992
Attention: Cherie D'Andrea	First Sample #:	201-0199	Reported:	Jan 17, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
201-0199	MW-6	370	81	3.9	4.5	2.9
Detection Limits:		**150**	**1.5**	**1.5**	**1.5**	**1.5**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL
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Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled:	Jan 8, 1992
1000 Burnett St., #140	Matrix Descript:	Water	Received:	Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jan 9, 1992
Attention: Cherie D'Andrea	First Sample #:	201-0201	Reported:	Jan 17, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
201-0201	MW-7	220	7.8	1.7	N.D.	0.55
Detection Limits:		**30**	**0.30**	**0.30**	**0.30**	**0.30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled:	Jan 8, 1992
1000 Burnett St., #140	Sample Descript:	Wastewater, MW-4	Received:	Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 601	Analyzed:	Jan 15, 1992
Attention: Cherie D'Andrea	Lab Number:	201-0197	Reported:	Jan 17, 1992

PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	2.5	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
Dichlorodifluoromethane	10	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	9.2
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Scott A. Chieffo
Project Manager

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Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled: Jan 8, 1992
1000 Burnett St., #140	Sample Descript:	Wastewater, MW-1	Received: Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 601	Analyzed: Jan 15, 1992
Attention: Cherie D'Andrea	Lab Number:	201-0198	Reported: Jan 17, 1992

PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	2.5	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	2.5	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	2.5	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
Dichlorodifluoromethane	10	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	14
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	10	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience	Client Project ID:	Mobil #10-HGJ/30-0065-05	Sampled: Jan 8, 1992
1000 Burnett St., #140	Sample Descript:	Wastewater, MW-6	Received: Jan 9, 1992
Concord, CA 94520	Analysis Method:	EPA 601	Analyzed: Jan 15, 1992
Attention: Cherie D'Andrea	Lab Number:	201-0199	Reported: Jan 17, 1992

PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	0.50	N.D.
Bromoform	1.0	N.D.
Bromomethane	1.0	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
Dichlorodifluoromethane	2.0	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	5.4
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	1.0	N.D.
trans-1,3-Dichloropropene	1.0	N.D.
Methylene chloride	2.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	1.0	N.D.
Vinyl chloride	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-HGJ/30-0065-05
Sample Descript: Water
Analysis Method: California LUFT Manual, 12/87
First Sample #: 201-0197

Sampled: Jan 8, 1992
Received: Jan 9, 1992
Analyzed: Jan 16, 1992
Reported: Jan 17, 1992

ORGANIC LEAD

Sample Number	Sample Description	Sample Results mg/kg (ppm)
201-0197	MW-4	N.D.
201-0198	MW-1	N.D.
201-0199	MW-6	N.D.

Detection Limits:	0.050

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-HGJ/30-0065-05

QC Sample Group: 2010197-201

Reported: Jan 17, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Organic Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	LUFT
Analyst:	K.N.	K.N.	K.N.	K.N.	K. Anderson
Reporting Units:	ug/L	ug/L	ug/L	ug/L	mg/L
Date Analyzed:	Jan 9, 1992	Jan 9, 1992	Jan 9, 1992	Jan 9, 1992	Jan 16, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	201-0197
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60	10
Conc. Matrix Spike:	19	19	20	60	11
Matrix Spike % Recovery:	95	95	100	100	110
Conc. Matrix Spike Dup.:	18	18	19	57	13
Matrix Spike Duplicate % Recovery:	90	90	95	95	130
Relative % Difference:	5.4	5.4	5.1	5.1	17

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-HGJ/30-0065-05

QC Sample Group: 2010197-201

Reported: Jan 17, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	Jan 15, 1992	Jan 15, 1992	Jan 15, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	8.7	10	10
Matrix Spike % Recovery:	87	100	100
Conc. Matrix Spike Dup.:	8.6	10	9.7
Matrix Spike Duplicate % Recovery:	86	100	97
Relative % Difference:	1.0	0.0	3.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

ALTON GEOSCIENCE
1000 BURNETT ST., #140
CONCORD, CA 94520 (415) 682-1582

CHAIN of CUSTODY RECORD

PAGE 1 of 1

DATE: 1/8/92
RESULTS DUE BY: STAT

PROJECT NUMBER: 30-0065-05
PROJECT NAME AND ADDRESS: Mobil 1024 Main St., Pleasanton #10-HGJ

PROJECT MANAGER: Cherie De Andrea
SAMPLER'S SIGNATURE: [signature]
LABORATORY: Sequoia

REMARKS OR SPECIAL INSTRUCTIONS:
DIRECT BILLING TO MOBIL OIL.
ATTN: Ed Hoepker

NOTE: PLEASE INDICATE VERBAL REQUESTS FOR ADDITIONAL ANALYSES IN THIS BOX.

SAMPLE NUMBER	SAMPLE DATE/TIME	LOCATION/ DESCRIPTION	SAMPLE MATERIAL	SAMPLE TYPE: GRAB	SAMPLE TYPE: COMP.	NUMBER OF CONTAINERS	SAMPLE PREP.: 3510: SOLV. EXTR.	SAMPLE PREP.: 3810: HEAD SPACE	SAMPLE PREP.: 5030: PURGE & TRAP	SAMPLE PREP.	SOIL ANALYSIS: 418.1: TPHC (IR)	SOIL ANALYSIS: 8010: HALOCARBONS	SOIL ANALYSIS: 8020: BTXE	SOIL ANALYSIS: DHS METHOD: TPHC (GC)	SOIL ANALYSIS: 7420: TOTAL Pb	SOIL ANALYSIS	WATER ANALYSIS: 418.1: TPHC (IR)	WATER ANALYSIS: 601: HALOCARBONS	WATER ANALYSIS: 602: BTXE + TPH-G 8015	WATER ANALYSIS: DHS METHOD: TPHC (GC)	WATER ANALYSIS: 7421: TOTAL Pb	WATER ANALYSIS: ORGanic Lead
MW-4	1/8/92/1215	2010197AJ	6 HCl pres 4 un pres. 7 vou	X		10												X	X			X
MW-1	1/8/92/1400	198AJ	↓	↓		↓												↓	↓			↓
MW-6	1/8/92/1500	199AJ	↓	↓		↓												↓	↓			↓
MW-3	1/8/92/1509	200AF	6 HCl pres Voas	↓		6												↓	↓			
MW-7	1/8/92/1518	201AB	2 HCl pres voa	↓		2													↓			

TOTAL NO. OF CONTAINERS: 38

RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	METHOD OF SHIPMENT:
[signature]	[signature]	1/9/92 10:08	
RELINQUISHED BY: [signature]	RECEIVED BY: Karen [signature]	DATE/TIME: 1/9/92 1038	SHIPPED BY:
RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	COURIER:

SEQUOIA ANALYTICAL

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AUG 29 1991

Alton Geoscience	Client Project ID:	30-006S	Sampled: Aug 6, 1991
1000 Burnett St., #140	Matrix Descript:	Water	Received: Aug 7, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed: 8/13,16/91
Attention: Cherie D'Andrea	First Sample #:	108-0357 A-C	Reported: Aug 21, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
108-0357 A-C	MW-1	2,600	310	340	110	340
Detection Limits:		**600**	**6.0**	**6.0**	**6.0**	**6.0**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Belinda C. Vega
Laboratory Director

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(415) 686-9600 • FAX (415) 686-9689

Alton Geoscience	Client Project ID:	30-006S	Sampled: Aug 6, 1991
1000 Burnett St., #140	Matrix Descript:	Water	Received: Aug 7, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed: 8/13,16/91
Attention: Cherie D'Andrea	First Sample #:	108-0358 A-C	Reported: Aug 21, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
108-0358 A-C	MW-6	1,600	220	10	5.2	14
Detection Limits:		**60**	**0.60**	**0.60**	**0.60**	**0.60**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Laboratory Director

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Alton Geoscience	Client Project ID:	30-006S	Sampled: Aug 6, 1991
1000 Burnett St., #140	Matrix Descript:	Water	Received: Aug 7, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed: 8/13,16/91
Attention: Cherie D'Andrea	First Sample #:	108-0359 A-C	Reported: Aug 21, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
108-0359 A-C	MW-4	8,900	320	420	220	650
Detection Limits:		**300**	**3.0**	**3.0**	**3.0**	**3.0**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Laboratory Director

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Alton Geoscience	Client Project ID:	30-006S	Sampled: Aug 6, 1991
1000 Burnett St., #140	Matrix Descript:	Water	Received: Aug 7, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed: 8/13,16/91
Attention: Cherie D'Andrea	First Sample #:	108-0360 A-C	Reported: Aug 21, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)
108-0360 A-C	MW-2	160,000	16,000	25,000	4,300	19,000
Detection Limits:		**60,000**	**600**	**600**	**600**	**600**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-006S

QC Sample Group: 1080357-60

Reported: Aug 21, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA8015/8020	EPA8015/8020	EPA8015/8020	EPA8015/8020
Analyst:	R.H./J.F.	R.H./J.F.	R.H./J.F.	R.H./J.F.
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Aug 13, 1991	Aug 13, 1991	Aug 13, 1991	Aug 13, 1991
QC Sample #:	BLK081391	BLK081391	BLK081391	BLK081391
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	20	20	21	62
Matrix Spike % Recovery:	100	100	110	100
Conc. Matrix Spike Dup.:	20	20	21	64
Matrix Spike Duplicate % Recovery:	100	100	110	110
Relative % Difference:	0	0	0	3.2

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Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-006S

QC Sample Group: 1080357-60

Reported: Aug 21, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA8015/8020	EPA8015/8020	EPA8015/8020	EPA8015/8020
Analyst:	R.H./J.F.	R.H./J.F.	R.H./J.F.	R.H./J.F.
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Aug 16, 1991	Aug 16, 1991	Aug 16, 1991	Aug 16, 1991
QC Sample #:	BLK081691	BLK081691	BLK081691	BLK081691
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	23	22	24	78
Matrix Spike % Recovery:	120	110	120	130
Conc. Matrix Spike Dup.:	22	21	23	77
Matrix Spike Duplicate % Recovery:	110	110	120	130
Relative % Difference:	4.4	4.7	4.3	1.3

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Belinda C. Vega
Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Alton Geoscience	Client Project ID:	30-006S	Sampled: Aug 6, 1991
1000 Burnett St., #140	Sample Descript:	Water	Received: Aug 7, 1991
Concord, CA 94520	Analysis for:	Total Lead (EPA 7421)	Extracted: Aug 8, 1991
Attention: Cherie D'Andrea	First Sample #:	108-0357 G-H	Analyzed: Aug 12, 1991
			Reported: Aug 21, 1991

LABORATORY ANALYSIS FOR: Total Lead (EPA 7421)

Sample Number	Sample Description	Detection Limit mg/L	Sample Result mg/L
108-0357 G-H	MW-1	0.0050	N.D.
108-0358 G	MW-6	0.0050	N.D.
108-0359 G-H	MW-4	0.0050	N.D.
108-0360 G-H	MW-2	0.0050	0.33

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-006S

QC Sample Group: 1080357-60

Reported: Aug 21, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Lead
Method:	EPA 7421
Analyst:	N. Herrera
Reporting Units:	mg/L
Date Analyzed:	Aug 12, 1991
QC Sample #:	108-0157
Sample Conc.:	N.D.
Spike Conc. Added:	0.10
Conc. Matrix Spike:	0.086
Matrix Spike % Recovery:	86
Conc. Matrix Spike Dup.:	0.087
Matrix Spike Duplicate % Recovery:	87
Relative % Difference:	1.2

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Laboratory Director

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Alton Geoscience	Client Project ID:	30-006S	Sampled:	Aug 6, 1991
1000 Burnett St., #140	Sample Descript:	Water, MW-1	Received:	Aug 7, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	8/19-20/91
Attention: Cherie D'Andrea	Lab Number:	108-0357	Reported:	Aug 21, 1991

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	25	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	25	N.D.
Chlorobenzene	25	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	25	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	25	N.D.
1,2-Dichlorobenzene	25	N.D.
1,3-Dichlorobenzene	25	N.D.
1,4-Dichlorobenzene	25	N.D.
1,1-Dichloroethane	25	N.D.
1,2-Dichloroethane	25	N.D.
1,1-Dichloroethene	25	N.D.
cis-1,2-Dichloroethene	25	N.D.
trans-1,2-Dichloroethene	25	N.D.
1,2-Dichloropropane	25	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	100	N.D.
1,1,2,2-Tetrachloroethane	25	N.D.
Tetrachloroethene	25	N.D.
1,1,1-Trichloroethane	25	N.D.
1,1,2-Trichloroethane	25	N.D.
Trichloroethene	25	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Alton Geoscience	Client Project ID:	30-006S	Sampled:	Aug 6, 1991
1000 Burnett St., #140	Sample Descript:	Water, MW-6	Received:	Aug 7, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8010	Analyzed:	8/19-20/91
Attention: Cherie D'Andrea	Lab Number:	108-0358	Reported:	Aug 21, 1991

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	5.0	N.D.
Bromoform	10	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	10	N.D.
2-Chloroethylvinyl ether	10	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	8.3
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	10	N.D.
trans-1,3-Dichloropropene	10	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	10	N.D.
Vinyl chloride	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-006S
Sample Descript: Water, MW-4
Analysis Method: EPA 5030/8010
Lab Number: 108-0359

Sampled: Aug 6, 1991
Received: Aug 7, 1991
Analyzed: 8/19-20/91
Reported: Aug 21, 1991

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	20	N.D.
Bromoform	40	N.D.
Bromomethane	40	N.D.
Carbon tetrachloride	20	N.D.
Chlorobenzene	20	N.D.
Chloroethane	40	N.D.
2-Chloroethylvinyl ether	40	N.D.
Chloroform	20	N.D.
Chloromethane	40	N.D.
Dibromochloromethane	20	N.D.
1,2-Dichlorobenzene	20	N.D.
1,3-Dichlorobenzene	20	N.D.
1,4-Dichlorobenzene	20	N.D.
1,1-Dichloroethane	20	N.D.
1,2-Dichloroethane	20	N.D.
1,1-Dichloroethene	20	N.D.
cis-1,2-Dichloroethene	20	N.D.
trans-1,2-Dichloroethene	20	N.D.
1,2-Dichloropropane	20	N.D.
cis-1,3-Dichloropropene	40	N.D.
trans-1,3-Dichloropropene	40	N.D.
Methylene chloride	80	N.D.
1,1,2,2-Tetrachloroethane	20	N.D.
Tetrachloroethene	20	N.D.
1,1,1-Trichloroethane	20	N.D.
1,1,2-Trichloroethane	20	N.D.
Trichloroethene	20	N.D.
Trichlorofluoromethane	40	N.D.
Vinyl chloride	40	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-006S
Sample Descript: Water, MW-2
Analysis Method: EPA 5030/8010
Lab Number: 108-0360

Sampled: Aug 6, 1991
Received: Aug 7, 1991
Analyzed: 8/19-20/91
Reported: Aug 21, 1991

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane	200	N.D.
Bromoform	400	N.D.
Bromomethane	400	N.D.
Carbon tetrachloride	200	N.D.
Chlorobenzene	200	N.D.
Chloroethane	400	N.D.
2-Chloroethylvinyl ether	400	N.D.
Chloroform	200	N.D.
Chloromethane	400	N.D.
Dibromochloromethane	200	N.D.
1,2-Dichlorobenzene	200	N.D.
1,3-Dichlorobenzene	200	N.D.
1,4-Dichlorobenzene	200	N.D.
1,1-Dichloroethane	200	N.D.
1,2-Dichloroethane	200	N.D.
1,1-Dichloroethene	200	N.D.
cis-1,2-Dichloroethene	200	N.D.
trans-1,2-Dichloroethene	200	N.D.
1,2-Dichloropropane	200	N.D.
cis-1,3-Dichloropropene	400	N.D.
trans-1,3-Dichloropropene	400	N.D.
Methylene chloride	800	N.D.
1,1,2,2-Tetrachloroethane	200	N.D.
Tetrachloroethene	200	N.D.
1,1,1-Trichloroethane	200	N.D.
1,1,2-Trichloroethane	200	N.D.
Trichloroethene	200	N.D.
Trichlorofluoromethane	400	N.D.
Vinyl chloride	400	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Alton Geoscience
1000 Burnett St., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: 30-006S

QC Sample Group: 1080357-60

Reported: Aug 21, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloroethene	Chloro-benzene	Benzene	Toluene	Chloro-benzene (PID)
Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	S.L	S.L	S.L	S.L	S.L	S.L
Reporting Units:	ppb	ppb	ppb	ppb	ppb	ppb
Date Analyzed:	Aug 20, 1991	Aug 20, 1991	Aug 20, 1991	Aug 20, 1991	Aug 20, 1991	Aug 20, 1991
QC Sample #:	108-0645	108-0645	108-0645	108-0645	108-0645	108-0645
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	10	10	10
Conc. Matrix Spike:	8.6	11	11	10	9.0	9.3
Matrix Spike % Recovery:	86	110	110	100	90	93
Conc. Matrix Spike Dup.:	7.0	9.2	11	9.7	8.7	9.2
Matrix Spike Duplicate % Recovery:	70	92	110	97	87	92
Relative % Difference:	20	18	0	3.0	3.4	1.1

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Belinda C. Vega
Laboratory Director

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05
Matrix Descript: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 205-0094

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: 5/6, 5/7/92
Reported: May 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons ug/L (ppb)	Benzene ug/L (ppb)	Toluene ug/L (ppb)	Ethyl Benzene ug/L (ppb)	Xylenes ug/L (ppb)
205-0094	MW-2	71,000	9,200	19,000	3,700	15,000
Detection Limits:		**3,000**	**30**	**30**	**30**	**30**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil#04-H6J / 30-0065-05
Matrix Descript: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 205-0095

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: 5/6, 5/7/92
Reported: May 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons ug/L (ppb)	Benzene ug/L (ppb)	Toluene ug/L (ppb)	Ethyl Benzene ug/L (ppb)	Xylenes ug/L (ppb)
205-0095	MW-1	1,300	150	120	12	160
Detection Limits:		**60**	**0.60**	**0.60**	**0.60**	**0.60**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil#04-H6J / 30-0065-05
Matrix Descript: Water
Analysis Method: EPA 5030/8015/8020
First Sample #: 205-0097

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: 5/6, 5/7/92
Reported: May 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons ug/L (ppb)	Benzene ug/L (ppb)	Toluene ug/L (ppb)	Ethyl Benzene ug/L (ppb)	Xylenes ug/L (ppb)
205-0097	MW-9	5,600	1,000	120	410	350
Detection Limits:		**300**	**3.0**	**3.0**	**3.0**	**3.0**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chiello
Project Manager

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil#04-H6J / 30-0065-05
Sample Descript: Water, MW-6
Analysis Method: EPA 5030/8010
Lab Number: 205-0093

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: May 7, 1992
Reported: May 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	0.50	N.D.
Carbon tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	0.50	N.D.
2-Chloroethylvinyl ether	0.50	N.D.
Chloroform	0.50	N.D.
Chloromethane	0.50	N.D.
Dibromochloromethane	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	7.0
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	0.50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05
Sample Descript: Water, MW-2
Analysis Method: EPA 5030/8010
Lab Number: 205-0094

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: May 8, 1992
Reported: May 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	50	N.D.
Chlorobenzene	50	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	50	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	50	420
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	50	N.D.
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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Project Manager

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05
Sample Descript: Water, MW-1
Analysis Method: EPA 5030/8010
Lab Number: 205-0095

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: May 8, 1992
Reported: May 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	2.5	N.D.
Bromoform	2.5	N.D.
Bromomethane	2.5	N.D.
Carbon tetrachloride	2.5	N.D.
Chlorobenzene	2.5	N.D.
Chloroethane	2.5	N.D.
2-Chloroethylvinyl ether	2.5	N.D.
Chloroform	2.5	N.D.
Chloromethane	2.5	N.D.
Dibromochloromethane	2.5	N.D.
1,3-Dichlorobenzene	2.5	N.D.
1,4-Dichlorobenzene	2.5	N.D.
1,2-Dichlorobenzene	2.5	N.D.
1,1-Dichloroethane	2.5	N.D.
1,2-Dichloroethane	2.5	4.3
1,1-Dichloroethene	2.5	N.D.
cis-1,2-Dichloroethene	2.5	N.D.
trans-1,2-Dichloroethene	2.5	N.D.
1,2-Dichloropropane	2.5	N.D.
cis-1,3-Dichloropropene	2.5	N.D.
trans-1,3-Dichloropropene	2.5	N.D.
Methylene chloride	25	N.D.
1,1,2,2-Tetrachloroethane	2.5	N.D.
Tetrachloroethene	2.5	N.D.
1,1,1-Trichloroethane	2.5	N.D.
1,1,2-Trichloroethane	2.5	N.D.
Trichloroethene	2.5	N.D.
Trichlorofluoromethane	2.5	N.D.
Vinyl chloride	2.5	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Scott A. Chieffo
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Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05
Sample Descript: Water, MW-4
Analysis Method: EPA 5030/8010
Lab Number: 205-0096

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: May 8, 1992
Reported: May 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	50	N.D.
Chlorobenzene	50	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	50	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	N.D.
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	50	N.D.
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05
Sample Descript.: Water, MW-9
Analysis Method: EPA 5030/8010
Lab Number: 205-0097

Sampled: Apr 30, 1992
Received: May 1, 1992
Analyzed: May 7, 1992
Reported: May 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	20	N.D.
Bromoform	20	N.D.
Bromomethane	20	N.D.
Carbon tetrachloride	20	N.D.
Chlorobenzene	20	N.D.
Chloroethane	20	N.D.
2-Chloroethylvinyl ether	20	N.D.
Chloroform	20	N.D.
Chloromethane	20	N.D.
Dibromochloromethane	20	N.D.
1,3-Dichlorobenzene	20	N.D.
1,4-Dichlorobenzene	20	N.D.
1,2-Dichlorobenzene	20	N.D.
1,1-Dichloroethane	20	N.D.
1,2-Dichloroethane	20	N.D.
1,1-Dichloroethene	20	N.D.
cis-1,2-Dichloroethene	20	N.D.
trans-1,2-Dichloroethene	20	N.D.
1,2-Dichloropropane	20	N.D.
cis-1,3-Dichloropropene	20	N.D.
trans-1,3-Dichloropropene	20	N.D.
Methylene chloride	200	N.D.
1,1,2,2-Tetrachloroethane	20	N.D.
Tetrachloroethene	20	N.D.
1,1,1-Trichloroethane	20	N.D.
1,1,2-Trichloroethane	20	N.D.
Trichloroethene	20	N.D.
Trichlorofluoromethane	20	N.D.
Vinyl chloride	20	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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Project Manager

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Alton Geoscience
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Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05

QC Sample Group: 2050093-0097

Reported: May 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	K.E.	K.E.	K.E.	K.E.
Reporting Units:	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	May 6, 1992	May 6, 1992	May 6, 1992	May 6, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	21	21	22	68
Matrix Spike % Recovery:	105	105	110	113
Conc. Matrix Spike Dup.:	20	20	20	62
Matrix Spike Duplicate % Recovery:	100	100	100	103
Relative % Difference:	4.9	4.9	9.5	9.2

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$$

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Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05

QC Sample Group: 2050093-0097

Reported: May 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	J.F.	J.F.	J.F	J.F.
Reporting Units:	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	May 7, 1992	May 7, 1992	May 7, 1992	May 7, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	20	20	20	60
Conc. Matrix Spike:	22	23	20	63
Matrix Spike % Recovery:	110	115	100	105
Conc. Matrix Spike Dup.:	20	23	22	65
Matrix Spike Duplicate % Recovery:	100	115	110	108
Relative % Difference:	9.5	0.0	9.5	3.1

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #04-H6J / 30-0065-05

QC Sample Group: 2050093-0097

Reported: May 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	May 7, 1992	May 7, 1992	May 7, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	8.0	9.8	8.5
Matrix Spike % Recovery:	80	98	85
Conc. Matrix Spike Dup.:	8.0	12	8.6
Matrix Spike Duplicate % Recovery:	80	120	86
Relative % Difference:	0.0	20	1.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} = \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$$

SEQUOIA ANALYTICAL

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil#04-H6J / 30-0065-05

QC Sample Group: 2050093-0097

Reported: May 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	ug/L	ug/L	ug/L
Date Analyzed:	May 8, 1992	May 8, 1992	May 8, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10
Conc. Matrix Spike:	8.2	10	8.9
Matrix Spike % Recovery:	82	100	89
Conc. Matrix Spike Dup.:	7.8	10	8.8
Matrix Spike Duplicate % Recovery:	78	100	88
Relative % Difference:	5.0	0.0	1.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\%\ \text{Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{(\text{Conc. of M.S. + Conc. of M.S.D.}) / 2} \times 100$$

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City:
Concord:
Sacramento: (916) 92[illegible]

Consulting Firm Name: ALTON GEOSCIENCE	Site SS #: Former # 04-HGJ	Phase of Work:
Address: 5870 Stoneridge Dr., Ste. 6	Mobil Site Address: 1024 MAIN ST. PLEASANTON	☐ A. Emrg. Response
City: PLEASANTON State: CA Zip Code: 94588	Mobil Engineer: Ed Hoepker	☐ B. Site Assessment
Telephone: 510-734-8134 FAX #: 510-734-8420	Consultant Project #: 30-0065-05	☐ C. Remediation
Project Contact: Cherie D'Andrea Sampled by: Andy Block	Sequoia's Work Order Release #: —	☒ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days)
☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2	HVOC 8010				Comments
1. MW-6	4/30/92/1345	W	6	205093AF	X				X				
2. MW-2	4/30/92/1355	W	6	94AF	X				X				
3. MW-1	4/30/92/1405	W	6	95AF	X				X				
4. MW-4	4/30/92/1525	W	6	96AF	X				X				
5. MW-9	4/30/92/1610	W	6	97AF	X				X				
6.													
7.													
8.													
9.													
10.													

Relinquished By:	Date: 5-1-92	Time: 1:40PM	Received By:	Date: 5-1-92	Time: 1:40PM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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FEB 13 1992

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 202-0009

Sampled: 1/30-1/31/92
Received: Feb 3, 1992
Analyzed: Feb 4, 1992
Reported: Feb 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
202-0009	SB-15(11.5-12)	N.D.	N.D.	0.011	N.D.	0.014
202-0010	SB-15(17.5-18)	N.D.	N.D.	N.D.	N.D.	N.D.
202-0014	SB-14(19.5-20)	N.D.	N.D.	N.D.	N.D.	N.D.
202-0015	SB-14(29.5-30)	N.D.	N.D.	N.D.	N.D.	N.D.
202-0016	SB-14(34.5-35)	N.D.	N.D.	N.D.	N.D.	N.D.
202-0017	SB-14(39.5-40)	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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FEB 13 '92

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 202-0011

Sampled: Jan 30, 1992
Received: Feb 3, 1992
Analyzed: Feb 4, 1992
Reported: Feb 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
202-0011	SB-15(25-25.5)	6.2	0.013	1.3	0.16	1.0
Detection Limits:		**2.0**	**0.010**	**0.010**	**0.010**	**0.010**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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FEB 13 1992

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Matrix Descript: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 202-0012

Sampled: Jan 30, 1992
Received: Feb 3, 1992
Analyzed: Feb 4, 1992
Reported: Feb 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
202-0012	SB-15(34-34.5)	4,100	51	270	130	540
Detection Limits:		**100**	**0.50**	**0.50**	**0.50**	**0.50**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

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FEB 13 [illegible]

Alton Geoscience	Client Project ID:	Mobil #10-H6J/ 30-0065-05	Sampled:	Jan 30, 1992
5870 Stoneridge Drive, Suite 6	Matrix Descript:	Soil	Received:	Feb 3, 1992
Pleasanton, CA 94588	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Feb 4, 1992
Attention: Cherie D' Andrea	First Sample #:	202-0013	Reported:	Feb 11, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
202-0013	SB-15(37-37.5)	740	7.2	29	18	73
Detection Limits:		**50**	**0.25**	**0.25**	**0.25**	**0.25**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Project Manager

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FEB 13 ...

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Matrix Descript: Soil
Analysis Method: SM 5520 E&F (Gravimetric)
First Sample #: 202-0009

Sampled: 1/30-1/31/92
Received: Feb 3, 1992
Extracted: Feb 4, 1992
Analyzed: Feb 7, 1992
Reported: Feb 11, 1992

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
202-0009	SB-15(11.5-12)	N.D.
202-0010	SB-15(17.5-18)	N.D.
202-0011	SB-15(25-25.5)	N.D.
202-0012	SB-15(34-34.5)	N.D.
202-0013	SB-15(37-37.5)	N.D.
202-0014	SB-14(19.5-20)	N.D.
202-0015	SB-14(29.5-30)	N.D.
202-0016	SB-14(34.5-35)	N.D.
202-0017	SB-14(39.5-40)	N.D.

Detection Limits:	**30**

Analytes reported as N.D. were not present above the stated limit of detection.

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[illegible]

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil, SB-15(11.5-12)
Analysis Method: EPA 5030/8010
Lab Number: 202-0009

Sampled: Jan 30, 1992
Received: Feb 3, 1992
Analyzed: Feb 9, 1992
Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil, SB-15(17.5-18)
Analysis Method: EPA 5030/8010
Lab Number: 202-0010

Sampled: Jan 30, 1992
Received: Feb 3, 1992
Analyzed: Feb 9, 1992
Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil, SB-15(25-25.5)
Analysis Method: EPA 5030/8010
Lab Number: 202-0011

Sampled: Jan 30, 1992
Received: Feb 3, 1992
Analyzed: Feb 9, 1992
Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	23
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil, SB-15(34-34.5)
Analysis Method: EPA 5030/8010
Lab Number: 202-0012

Sampled: Jan 30, 1992
Received: Feb 3, 1992
Analyzed: Feb 9, 1992
Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	50	N.D.
Bromoform	50	N.D.
Bromomethane	50	N.D.
Carbon tetrachloride	50	N.D.
Chlorobenzene	50	N.D.
Chloroethane	50	N.D.
2-Chloroethylvinyl ether	50	N.D.
Chloroform	50	N.D.
Chloromethane	50	N.D.
Dibromochloromethane	50	N.D.
1,2-Dichlorobenzene	50	N.D.
1,3-Dichlorobenzene	50	N.D.
1,4-Dichlorobenzene	50	N.D.
1,1-Dichloroethane	50	N.D.
1,2-Dichloroethane	50	390
1,1-Dichloroethene	50	N.D.
cis-1,2-Dichloroethene	50	N.D.
trans-1,2-Dichloroethene	50	N.D.
1,2-Dichloropropane	50	N.D.
cis-1,3-Dichloropropene	50	N.D.
trans-1,3-Dichloropropene	50	N.D.
Methylene chloride	500	N.D.
1,1,2,2-Tetrachloroethane	50	N.D.
Tetrachloroethene	50	N.D.
1,1,1-Trichloroethane	50	N.D.
1,1,2-Trichloroethane	50	N.D.
Trichloroethene	50	N.D.
Trichlorofluoromethane	50	N.D.
Vinyl chloride	50	N.D.

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Alton Geoscience	Client Project ID:	Mobil #10-H6J/ 30-0065-05	Sampled:	Jan 30, 1992
5870 Stoneridge Drive, Suite 6	Sample Descript:	Soil, SB-15(37-37.5)	Received:	Feb 3, 1992
Pleasanton, CA 94588	Analysis Method:	EPA 5030/8010	Analyzed:	Feb 9, 1992
Attention: Cherie D' Andrea	Lab Number:	202-0013	Reported:	Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	65
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience	Client Project ID:	Mobil #10-H6J/ 30-0065-05	Sampled: Jan 31, 1992
5870 Stoneridge Drive, Suite 6	Sample Descript:	Soil, SB-14(19.5-20)	Received: Feb 3, 1992
Pleasanton, CA 94588	Analysis Method:	EPA 5030/8010	Analyzed: Feb 9, 1992
Attention: Cherie D' Andrea	Lab Number:	202-0014	Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience	Client Project ID:	Mobil #10-H6J/ 30-0065-05	Sampled:	Jan 31, 1992
5870 Stoneridge Drive, Suite 6	Sample Descript:	Soil, SB-14(29.5-30)	Received:	Feb 3, 1992
Pleasanton, CA 94588	Analysis Method:	EPA 5030/8010	Analyzed:	Feb 9, 1992
Attention: Cherie D' Andrea	Lab Number:	202-0015	Reported:	Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil, SB-14(34.5-35)
Analysis Method: EPA 5030/8010
Lab Number: 202-0016

Sampled: Jan 31, 1992
Received: Feb 3, 1992
Analyzed: Feb 9, 1992
Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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FEB 19 ...

Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil, SB-14(39.5-40)
Analysis Method: EPA 5030/8010
Lab Number: 202-0017

Sampled: Jan 31, 1992
Received: Feb 3, 1992
Analyzed: Feb 10, 1992
Reported: Feb 11, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	5.0	N.D.
Bromomethane	5.0	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	5.0	N.D.
2-Chloroethylvinyl ether	5.0	N.D.
Chloroform	5.0	N.D.
Chloromethane	5.0	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	5.0	N.D.
trans-1,3-Dichloropropene	5.0	N.D.
Methylene chloride	50	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	5.0	N.D.
Vinyl chloride	5.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Alton Geoscience	Client Project ID:	Mobil #10-H6J/ 30-0065-05	Sampled: Jan 30, 1992
5870 Stoneridge Drive, Suite 6	Sample Descript:	Soil, SB-15(37-37.5)	Received: Feb 3, 1992
Pleasanton, CA 94588			Extracted: 2/4-2/5/92
Attention: Cherie D' Andrea	Lab Number:	202-0013	Reported: Feb 11, 1992

INORGANIC PERSISTENT AND BIOACCUMULATIVE TOXIC SUBSTANCES

	Soluble Threshold Limit Concentration Waste Extraction Test			Total Threshold Limit Concentration		
Analyte	STLC Max. Limit (mg/L)	Detection Limit (mg/L)	Analysis Result (mg/L)	TTLC Max. Limit (mg/kg)	Detection Limit (mg/kg)	Analysis Result (mg/kg)
Antimony	15	0.10	0.14	500	5.0	19
Arsenic	5.0	0.10	-	500	5.0	N.D.
Barium	100	0.10	10	10,000	5.0	140
Beryllium	0.75	0.010	-	75	0.50	N.D.
Cadmium	1.0	0.010	-	100	0.50	N.D.
Chromium (VI)	5.0	0.0050	-	500	0.050	-
Chromium (III)	560	0.010	-	2,500	0.50	57
Cobalt	80	0.050	-	8,000	2.5	15
Copper	25	0.010	-	2,500	0.50	21
Lead	5.0	0.10	0.38	1,000	5.0	16
Mercury	0.20	0.00020	-	20	0.010	0.040
Molybdenum	350	0.050	-	3,500	2.5	N.D.
Nickel	20	0.050	0.38	2,000	2.5	85
Selenium	1.0	0.10	-	100	5.0	N.D.
Silver	5.0	0.010	-	500	0.50	N.D.
Thallium	7.0	0.10	-	700	5.0	N.D.
Vanadium	24	0.050	0.23	2,400	2.5	35
Zinc	250	0.010	-	5,000	0.50	54
Asbestos	-	10	-	10,000	100	-
Fluoride	180	0.10	-	18,000	1.0	-

TTLC results are reported as mg/kg of wet weight. Asbestos results are reported as fibers/g.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience	Client Project ID:	Mobil #10-H6J/ 30-0065-05	Sampled: Jan 31, 1992
5870 Stoneridge Drive, Suite 6	Sample Descript:	Soil, SB-14(39.5-40)	Received: Feb 3, 1992
Pleasanton, CA 94588			Extracted: 2/4-2/5/92
Attention: Cherie D' Andrea	Lab Number:	202-0017	Reported: Feb 11, 1992

INORGANIC PERSISTENT AND BIOACCUMULATIVE TOXIC SUBSTANCES

Analyte	Soluble Threshold Limit Concentration (Waste Extraction Test) STLC Max. Limit (mg/L)	Detection Limit (mg/L)	Analysis Result (mg/L)	Total Threshold Limit Concentration TTLC Max. Limit (mg/kg)	Detection Limit (mg/kg)	Analysis Result (mg/kg)
Antimony	15	0.10	0.10	500	5.0	22
Arsenic	5.0	0.10	-	500	5.0	N.D.
Barium	100	0.10	6.1	10,000	5.0	200
Beryllium	0.75	0.010	-	75	0.50	0.54
Cadmium	1.0	0.010	-	100	0.50	N.D.
Chromium (VI)	5.0	0.0050	-	500	0.050	-
Chromium (III)	560	0.010	-	2,500	0.50	63
Cobalt	80	0.050	-	8,000	2.5	18
Copper	25	0.010	0.28	2,500	0.50	25
Lead	5.0	0.10	0.31	1,000	5.0	16
Mercury	0.20	0.00020	-	20	0.010	0.0060
Molybdenum	350	0.050	-	3,500	2.5	N.D.
Nickel	20	0.050	0.39	2,000	2.5	89
Selenium	1.0	0.10	-	100	5.0	N.D.
Silver	5.0	0.010	-	500	0.50	N.D.
Thallium	7.0	0.10	-	700	5.0	N.D.
Vanadium	24	0.050	0.20	2,400	2.5	38
Zinc	250	0.010	-	5,000	0.50	65
Asbestos	-	10	-	10,000	100	-
Fluoride	180	0.10	-	18,000	1.0	-

TTLC results are reported as mg/kg of wet weight. Asbestos results are reported as fibers/g.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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1900 Bates Avenue • Suite LM • Concord, California 94520
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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05
Sample Descript: Soil
Analysis for: Total Organic Carbon
First Sample #: 202-0013

Sampled: 1/30-1/31/92
Received: Feb 3, 1992
Extracted: Feb 6, 1992
Analyzed: Feb 6, 1992
Reported: Feb 11, 1992

LABORATORY ANALYSIS FOR: Total Organic Carbon

Sample Number	Sample Description	Detection Limit mg/kg	Sample Result mg/kg
202-0013	SB-15(37-37.5)	33	330
202-0017	SB-14(39.5-40)	33	140

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05

QC Sample Group: 2020009-17

Reported: Feb 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Oil and Grease	Total Organic Carbon
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	SM5520	EPA 415.2
Analyst:	K.N.	K.N.	K.N.	K.N.	D. Newcomb	M. Fazzio
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Feb 4, 1992	Feb 4, 1992	Feb 4, 1992	Feb 4, 1992	Feb 4, 1992	Feb 6, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	202-0145
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	70
Spike Conc. Added:	0.40	0.40	0.40	1.2	5000	7300
Conc. Matrix Spike:	0.44	0.44	0.48	1.4	4700	8200
Matrix Spike % Recovery:	110	110	120	116	94	111
Conc. Matrix Spike Dup.:	0.42	0.42	0.45	1.3	4700	8000
Matrix Spike Duplicate % Recovery:	105	105	112	108	94	109
Relative % Difference:	4.6	4.6	6.4	7.4	0.0	2.5

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Alton Geoscience
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Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05

QC Sample Group: 2020009-17

Reported: Feb 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Antimony	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992
QC Sample #:	202-0505	202-0505	202-0505	202-0505	202-0505	202-0505	202-0505
Sample Conc.:	N. D.	36	N. D.	N. D.	4.0	3.0	6.6
Spike Conc. Added:	100	100	100	100	100	100	100
Conc. Matrix Spike:	110	140	100	110	110	110	110
Matrix Spike % Recovery:	110	104	100	110	106	107	103
Conc. Matrix Spike Dup.:	110	140	100	110	110	110	110
Matrix Spike Duplicate % Recovery:	110	104	100	110	106	107	103
Relative % Difference:	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}}$	x 100
Relative % Difference:	$\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}}$	x 100

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Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05

QC Sample Group: 2020009-17

Reported: Feb 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Molybdenum	Nickel	Silver	Thallium	Vanadium	Zinc	Arsenic
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992
QC Sample #:	202-0505	202-0505	202-0505	202-0505	202-0505	202-0505	202-0505
Sample Conc.:	N. D.	3.9	N. D.	N. D.	12	20	N. D.
Spike Conc. Added:	100	100	100	100	100	100	100
Conc. Matrix Spike:	100	110	110	120	120	120	100
Matrix Spike % Recovery:	100	106	110	120	108	100	100
Conc. Matrix Spike Dup.:	110	110	110	120	120	130	110
Matrix Spike Duplicate % Recovery:	110	106	110	120	108	110	110
Relative % Difference:	9.5	0.0	0.0	0.0	0.0	8.0	9.5

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05

QC Sample Group: 2020009-17

Reported: Feb 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Selenium	Lead	Mercury	Nickel	Vanadium	Barium	Copper
Method:	EPA 6010	EPA 6010	EPA 7471	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7
Analyst:	C. Medefesser	C. Medefesser	J. Martinez	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/L	mg/L
Date Analyzed:	Feb 5, 1992	Feb 5, 1992	Feb 5, 1992	Feb 7, 1992	Feb 7, 1992	Feb 7, 1992	Feb 7, 1992
QC Sample #:	202-0505	202-0505	202-0093	201-4858	201-4858	201-4858	201-4858
Sample Conc.:	N. D.	5.2	N. D.	N. D.	N. D.	0.26	0.11
Spike Conc. Added:	100	100	0.10	5.0	5.0	5.0	5.0
Conc. Matrix Spike:	99	110	0.10	4.0	4.1	4.4	4.7
Matrix Spike % Recovery:	99	105	100	80	82	83	92
Conc. Matrix Spike Dup.:	100	110	'0.10	4.1	4.2	4.5	4.8
Matrix Spike Duplicate % Recovery:	100	105	100	82	84	85	94
Relative % Difference:	1.0	0.0	0.0	2.5	2.4	2.2	2.1

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\%\ \text{Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05

QC Sample Group: 2020009-17

Reported: Feb 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Lead	Antimony
Method:	EPA 200.7	EPA 200.7
Analyst:	C. Medefesser	C. Medefesser
Reporting Units:	mg/L	mg/L
Date Analyzed:	Feb 7, 1992	Feb 7, 1992
QC Sample #:	201-4858	201-4858
Sample Conc.:	N. D.	N. D.
Spike Conc. Added:	5.0	5.0
Conc. Matrix Spike:	4.4	4.4
Matrix Spike % Recovery:	88	88
Conc. Matrix Spike Dup.:	4.2	4.4
Matrix Spike Duplicate % Recovery:	84	88
Relative % Difference:	4.7	0.0

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Alton Geoscience
5870 Stoneridge Drive, Suite 6
Pleasanton, CA 94588
Attention: Cherie D' Andrea

Client Project ID: Mobil #10-H6J/ 30-0065-05

QC Sample Group: 2020009-17

Reported: Feb 11, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010
Analyst:	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	mg/kg	mg/kg	mg/kg
Date Analyzed:	Feb 9, 1992	Feb 9, 1992	Feb 9, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	•
Conc. Matrix Spike:	8.0	9.7	10
Matrix Spike % Recovery:	80	97	100
Conc. Matrix Spike Dup.:	7.5	9.9	10
Matrix Spike Duplicate % Recovery:	75	99	100
Relative % Difference:	6.5	2.0	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Alton Geoscience	Site SS #: 10-HGJ	Phase of Work:	
Address: 1000 Burnett Ave #140	Mobil Site Address: 1024 Main St Pleasanton	☐ A. Emrg. Response	
City: Concord State: CA Zip Code: 94521	Mobil Engineer: Ed. Hoepker	☒ B. Site Assessment	
Telephone: 510 682 1582 FAX #: 510 682 8921	Consultant Project #: 30-0065-05	☐ C. Remediation	
Project Contact: C. D'Andrea Sampled by: Chris Reinheimer	Sequoia's Work Order Release #:	☐ D. Monitoring	
		☐ E. OGC/Claims	

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days) TRPH gravimetric method
☐ Other ________

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2 5520E	HVOC	CAM TLC metals	Organic Carbon	HOLD	Comments
1.	SB-15 30.5-31	1-30-92	Soil	1									X	8015/8020 9010
2.	SB-15 32.5-33			1									X	
3.	SB-15 34.5-35			1	2020012	X			X	X				
4.	SB-15 35.5-36			1									X	
5.	SB-15 37-37.5			1	2020013	X			X	X	X	X		
6.	SB-15 38-38.5			1									X	
7.	SB-15 41.5-42			1									X	
8.	~~SB-15 43.5-44~~													
9.	~~SB-15 44.5-45.5~~													
10.														

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Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Alton Geoscience	Site SS #: 10-HGJ	Phase of Work:
Address: 1000 Burnett Ave #140	Mobil Site Address: 1024 Main St Pleasanton	☐ A. Emrg. Response
City: Concord State: CA Zip Code: 94521	Mobil Engineer: Ed Hoepker	☒ B. Site Assessment
Telephone: 510 6821582 FAX #: 510 689 8721	Consultant Project #: 30-0065-05	☐ C. Remediation
Project Contact: C. D'Andrea Sampled by: Chris Reinheimer	Sequoia's Work Order Release #:	☐ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days) ☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease	HVOC	CAM TTLC metals	Organic carbon	KOC	EPA Methods Comments
SB-14 1. 17.5-20	1-31-92	Soil	1	2020014	X			X	X				8015/8020 8-10
SB-14 2. 24.5-25			1									X	
SB-14 3. 28.5-29			1									X	
SB-14 4. 29.5-30			1	2020015	X			X	X				
SB-14 5. 32.5-33			1									X	
SB-14 6. 34.5-35			1	2020016	X			X	X				
SB-14 7. 37-37.5			1									X	
SB-14 8. 38-38.5			1									X	
SB-14 9. 39.5-40			1	2020017	X			X	X	X	X		
SB-14 10. 41.5-42			1									X	

Relinquished By:	Date: 2-3-92	Time: 10:55	Received By:	Date: 2-3-92	Time: 21:05 PM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Alton Geoscience		Site SS #: 10-4165	Phase of Work:
Address: 1000 Burnett Ave #140		Mobil Site Address: 1024 Main St Pleasanton	☐ A. Emrg. Response
City: Concord	State: CA	Zip Code: 94521	☒ B. Site Assessment
Telephone: 510 682 1582	FAX #: 510 682 8921	Mobil Engineer: Ed Hoepker	☐ C. Remediation
Project Contact: C. D'Andrea	Sampled by: Chris Peinhegner	Consultant Project #: 30-0065-05	☐ D. Monitoring
		Sequoia's Work Order Release #:	☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days)
☐ Other _____

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2 Soxhlet	HVOC	Chromium VI	TLC organic carbon	LUFT 5	Comments
SB-14 1. 44.5-45	1-31-92	Soil	1									X	8015/8020 +10
SB-14 2. 49.5-50													
SB-14 3. 49-49.5													
SB-14 4. 52.5-53			1									X	
SB-14 5. 54-54.5			1									X	
6.													
7.													
8.													
9.													
10.													

Relinquished By:	Date: 2-3-92	Time: 10:35	Received By:	Date: 2-3-92	Time: 2120 PM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment _____

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Allen Geoscience		Site SS #: 10-HGJ	Phase of Work:
Address: 1000 Burnett Ave #140		Mobil Site Address: 1024 Main St Pleasanton	☐ A. Emrg. Response
City: Concord State: CA Zip Code: 94521		Mobil Engineer: Ed Hoepker	☒ B. Site Assessment
Telephone: 510 682 1582	FAX #: 510 682 8921	Consultant Project #: 50-0065-05	☐ C. Remediation
Project Contact: C D'Andrea	Sampled by: Chris Reinheimer	Sequoia's Work Order Release #:	☐ D. Monitoring
			☐ E. OGC/Claims

Turnaround Time: ☒ Standard TAT (5 - 10 Working Days) ☐ Other ______

TRPH gravimetric method → Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease ~~EPA 418.1~~ SM 5520	HVOC	CAM metals TTLC	Organic carbon	HOLD	Comments
1. SB-15 11.5-12	1-30-92	Soil	1	2020009	X			X	X				8015/8020 8010
2. SB-15 14.5-15	↓	↓	1	~~0010~~								X	
3. SB-15 15.5-16			1	~~0011~~								X	
4. SB-15 17.5-18			1	2020010	X			X	X				
5. SB-15 20-20.5			1									X	
6. SB-15 22-22.5			1									X	
7. SB-15 23.5-24			1									X	
8. SB-15 25-25.5			1	2020011	X			X	X				
9. SB-15 27.5-28			1									X	
10. SB-15 29-29.5	↓	↓	1									X	

Relinquished By: [signature]	Date: 2-3-92	Time: 10:55	Received By: [signature]	Date: 2-3-92	Time: 2:20 PM
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

Method of Shipment

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

OCT 30 1991

Alton Geoscience	Client Project ID:	Former Mobil #10H6J-Pleasanton	Sampled:	Oct 24, 1991
1000 Burnett Street, Suite 140	Matrix Descript:	Soil	Received:	Oct 25, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	10/25-28/91
Attention: Jerry Nieder-Westermann	First Sample #:	110-1039	Reported:	Oct 28, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1039	PS-7@6'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1040	PS-7@10'*	11	0.041	0.015	0.47	1.5
110-1041	PS-7@13'*	17	0.11	0.76	0.65	2.0
110-1044	PS-9@11'	16	0.12	0.0040	0.51	1.2
110-1046	PS-10@3'*	4.3	0.0064	0.064	N.D.	0.38
110-1050	PS-11@14'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1051	SP-7 A,B,C,D*	1.7	0.0093	0.082	0.0073	0.044
Detection Limits:		1.0	0.0050	0.0050	0.0050	0.0050

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

Please Note:
* The above samples appear to contain gasoline.

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience	Client Project ID:	Former Mobil #10H6J-Pleasanton	Sampled:	Oct 24, 1991
1000 Burnett Street, Suite 140	Matrix Descript:	Soil	Received:	Oct 25, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	10/25-28/91
Attention: Jerry Nieder-Westermann	First Sample #:	110-1042	Reported:	Oct 28, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1042	PS-8@8.5'*	4,000	2.6	130	100	650
110-1043	PS-8@13'*	630	2.3	40	16	93
Detection Limits:		**100**	**0.50**	**0.50**	**0.50**	**0.50**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

Please Note:
*The above samples appear to contain gasoline.

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Alton Geoscience	Client Project ID:	Former Mobil #10H6J-Pleasanton	Sampled:	Oct 24, 1991
1000 Burnett Street, Suite 140	Matrix Descript:	Soil	Received:	Oct 25, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	10/25-28/91
Attention: Jerry Nieder-Westermann	First Sample #:	110-1045	Reported:	Oct 28, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1045	PS-9@14.5'*	310	0.88	15	9.6	50
Detection Limits:		**10**	**0.050**	**0.050**	**0.050**	**0.050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

Please Note:
*The above samples appear to contain gasoline.

SEQUOIA ANALYTICAL

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Alton Geoscience	Client Project ID:	Former Mobil #10H6J-Pleasanton	Sampled:	Oct 24, 1991
1000 Burnett Street, Suite 140	Matrix Descript:	Soil	Received:	Oct 25, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	10/25-28/91
Attention: Jerry Nieder-Westermann	First Sample #:	110-1047	Reported:	Oct 28, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1047	PS-10@7'	60	0.29	N.D.	0.82	6.7
Detection Limits:		**5.0**	**0.025**	**0.025**	**0.025**	**0.025**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Julia R. Malerstein
Project Manager

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Alton Geoscience	Client Project ID:	Former Mobil #10H6J-Pleasanton	Sampled:	Oct 24, 1991
1000 Burnett Street, Suite 140	Matrix Descript:	Soil	Received:	Oct 25, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	10/25-28/91
Attention: Jerry Nieder-Westermann	First Sample #:	110-1048	Reported:	Oct 28, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1048	PS-10@16'*	670	1.9	38	16	100
Detection Limits:		**50**	**0.25**	**0.25**	**0.25**	**0.25**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

Please Note:
*The above sample appears to contain gasoline.

SEQUOIA ANALYTICAL

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Alton Geoscience	Client Project ID:	Former Mobil #10H6J-Pleasanton	Sampled:	Oct 24, 1991
1000 Burnett Street, Suite 140	Matrix Descript:	Soil	Received:	Oct 25, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	10/25-28/91
Attention: Jerry Nieder-Westermann	First Sample #:	110-1049	Reported:	Oct 28, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1049	PS-11@2'	N.D.	N.D.	0.16	N.D.	0.050
Detection Limits:		**2.5**	**0.013**	**0.013**	**0.013**	**0.013**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Julia R. Malerstein
Project Manager

1101039.ALG <6>

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Alton Geoscience
1000 Burnett Street, Suite 140
Concord, CA 94520
Attention: Jerry Nieder-Westermann

Client Project ID: Former Mobil# 10H6J-Pleasanton

QC Sample Group: 1101039-51

Reported: Oct 28, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	R.H./J.F.	R.H./J.F.	R.H./J.F.	R.H./J.F.
Reporting Units:	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Date Analyzed:	Oct 25, 1991	Oct 25, 1991	Oct 25, 1991	Oct 25, 1991
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.4	0.4	0.4	1.2
Conc. Matrix Spike:	0.37	0.35	0.34	1.2
Matrix Spike % Recovery:	92	88	85	100
Conc. Matrix Spike Dup.:	0.37	0.35	0.34	1.2
Matrix Spike Duplicate % Recovery:	92	88	85	100
Relative % Difference:	0	0	0	0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

for Arthur G. Burton
Laboratory Director

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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1000 BURNETT ST., #140
CONCORD, CA 94520 (415) 682-1582

CHAIN of CUSTODY RECORD

PAGE #1 of 2

DATE: 10/24/91

RESULTS DUE BY: 10/27/91

PROJECT NUMBER: 30-0065

PROJECT NAME AND ADDRESS: Former Mobil Station 10-HLS Pleasanton, CA

PROJECT MANAGER: CHERIE D'ANDREA

SAMPLER'S SIGNATURE: Cheri D'And

LABORATORY: Sequoia Anal.

REMARKS OR SPECIAL INSTRUCTIONS:
DIRECT BILLING TO MOBIL OIL
24 HR RUSH (Report on Monday)
* Analyze TABCD as one composite sample

NOTE: PLEASE INDICATE VERBAL REQUESTS FOR ADDITIONAL ANALYSES IN THIS BOX.

SAMPLE NUMBER	SAMPLE DATE/TIME	LOCATION/ DESCRIPTION	SAMPLE MATERIAL	SAMPLE TYPE: GRAB	SAMPLE TYPE: COMP.	NUMBER OF CONTAINERS: tubes, 1 5X4"	SAMPLE PREP. 3510: SOLV. EXTR.	SAMPLE PREP. 3810: HEAD SPACE	SAMPLE PREP. 5030: PURGE & TRAP	SOIL ANALYSIS 418.1: TPHC (IR)	SOIL ANALYSIS 8010: HALOCARBONS	SOIL ANALYSIS 8020: BTXE/TPH-g 8015	SOIL ANALYSIS DHS METHOD: TPHC (GC)	SOIL ANALYSIS 7420: TOTAL Pb	WATER ANALYSIS 418.1: TPHC (IR)	WATER ANALYSIS 601: HALOCARBONS	WATER ANALYSIS 602: BTXE	WATER ANALYSIS DHS METHOD: TPHC (GC)	WATER ANALYSIS 7421: TOTAL Pb
PS-7E6'	10/24/91 11:00	Pipeline Trench	Soil	X		1						X		7420	1039				
PS-7E10'	10/24/91 11:20	Pipeline Trench				1									1040				
PS-7E13'	10/24/91 11:40	Pipeline Trench				1									1041				
PS-8E8.5'	10/24/91 11:50					1									1042				
PS-8E13'	10/24/91 12:10					1									1043				
PS-9E11'	10/24/91 1:20					1									1044				
PS-9E14.5'	10/24/91 1:30					1									1045				
PS-10E3'	10/24/91 1:50					1									1046				
PS-10E7'	10/24/91 2:10					1									1047				
					TOTAL NO. OF CONTAINERS:														

RELINQUISHED BY: Cheri D'And 10/25/91 11:25	RECEIVED BY: Russell Graeler	DATE/TIME: 10/25/91 11:25	METHOD OF SHIPMENT:
RELINQUISHED BY: Russell Graeler 10/25/91 1200	RECEIVED BY:	DATE/TIME: 10/25/91 1220	SHIPPED BY:
RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	COURIER:

ALTON GEOSCIENCE
1000 BURNETT ST., #140
CONCORD, CA 94520 (415) 682-1582

CHAIN of CUSTODY RECORD

DATE: 10/24/91
RESULTS DUE BY: 10/27/91

PROJECT NUMBER: 30-0065
PROJECT NAME AND ADDRESS: Former Mobil Station 10-HGJ 1024 Main St., Pleasanton
PROJECT MANAGER: CHERIE D'ANDREA
SAMPLER'S SIGNATURE: Cherie D'Andrea
LABORATORY: Sequoia Analy.

REMARKS OR SPECIAL INSTRUCTIONS:
DIRECT BILLING TO MOBIL OIL
24 HR RUSH - (Report on Monday)
* Analyze 7ABCD as one composite sample

NOTE: PLEASE INDICATE VERBAL REQUESTS FOR ADDITIONAL ANALYSES IN THIS BOX.

SAMPLE NUMBER	SAMPLE DATE/TIME	LOCATION/ DESCRIPTION	SAMPLE MATERIAL	SAMPLE TYPE: GRAB	SAMPLE TYPE: COMP.	NUMBER OF CONTAINERS (Tubes 1½x4")	SAMPLE PREP.: 3510: SOLV. EXTR.	3810: HEAD SPACE	5030: PURGE & TRAP		SOIL ANALYSIS: 418.1: TPHC (IR)	8010: HALOCARBONS	8020: BTXE/TPH-G 8015	DHS METHOD: TPHC (GC)	7420: TOTAL Pb		WATER ANALYSIS: 418.1: TPHC (IR)	601: HALOCARBONS	602: BTXE	DHS METHOD: TPHC (GC)	7421: TOTAL Pb	Lab No.
PS-10@16'	10/24/91 2:30	Pipeline Trench	Soil	X		1							*									1101048
PS-11@2'	10/24/91 2:50	↓	↓	X		1							↓									1049
PS-11@14'	10/24/91 3:20	↓	↓	X		1							↓									1050
SP-7A	10/24/91 3:30	Stockpile Soil	Soil		X	Composite 4 samples to analyze as one *							↓									1101051 A-D
SP-7B	10/24/91 3:35	↓	↓		X								↓									
SP-7C	10/24/91 3:40				X								↓									
SP-7D	10/24/91 3:45	↓	↓		X								↓									

TOTAL NO. OF CONTAINERS:

RELINQUISHED BY:	RECEIVED BY:	DATE/TIME:	
Cherie D'Andrea 10/25/91 7:25	Russell Goode	10/25/91 7:25	METHOD OF SHIPMENT:
Russell Goode 10/25/91 18:00	[signature]	10/25 12:00	SHIPPED BY:
			COURIER:

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NOV 05 1991

Alton Geoscience	Client Project ID:	Mobil #10-H6J-1024 Main St., Pleasanton	Sampled:	Oct 25, 1991
1000 Burnett Avenue, Suite 140	Matrix Descript:	Soil	Received:	Oct 28, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Oct 28, 1991
Attention: Cherie D'Andrea	First Sample #:	110-1081	Reported:	Oct 29, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1081	PS-12@3'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1082	PS-12@13.5'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1083	PS-12@15'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1084	PS-14@5'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1085	PS-14@10.0'	3.3	0.029	0.016	0.027	0.073
110-1086	PS-14@14'	1.1	N.D.	N.D.	0.0064	0.018
110-1089	PS-17@5.0'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1090	PS-17@10'	1.3	N.D.	N.D.	N.D.	N.D.
110-1091	PS-17@14'	2.5	N.D.	N.D.	0.024	0.027
110-1092	PS-18@2'	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		1.0	0.0050	0.0050	0.0050	0.0050

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

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Alton Geoscience	Client Project ID:	Mobil # 10-H6J-1024 Main St., Pleasanton	Sampled:	Oct 25, 1991
1000 Burnett Avenue, Suite 140	Matrix Descript:	Soil	Received:	Oct 28, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Oct 28, 1991
Attention: Cherie D'Andrea	First Sample #:	110-1093	Reported:	Oct 29, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1093	PS-18@5'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1094	PS-18@7'	N.D.	N.D.	N.D.	N.D.	N.D.
110-1095	PS-18@10'	22	0.011	0.062	0.097	0.74
110-1096	PS-18@14'	N.D.	N.D.	N.D.	N.D.	N.D.

Detection Limits:	1.0	0.0050	0.0050	0.0050	0.0050

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

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Alton Geoscience	Client Project ID:	Mobil #10-H6J-1024 Main St., Pleasanton	Sampled:	Oct 25, 1991
1000 Burnett Avenue, Suite 140	Matrix Descript:	Soil	Received:	Oct 28, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Oct 28, 1991
Attention: Cherie D'Andrea	First Sample #:	110-1087	Reported:	Oct 29, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1087	PS-16@8'	1,500	N.D.	38	59	310
Detection Limits:		**50**	**0.25**	**0.25**	**0.25**	**0.25**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

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Julia R. Malerstein
Project Manager

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Alton Geoscience	Client Project ID:	Mobil # 10-H6J-1024 Main St., Pleasanton	Sampled:	Oct 25, 1991
1000 Burnett Avenue, Suite 140	Matrix Descript:	Soil	Received:	Oct 28, 1991
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Oct 28, 1991
Attention: Cherie D'Andrea	First Sample #:	110-1088	Reported:	Oct 29, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
110-1088	PS-16@12.5'	2,900	10	360	120	560
Detection Limits:		**100**	**0.50**	**0.50**	**0.50**	**0.50**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

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Alton Geoscience
1000 Burnett Avenue, Suite 140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil#10-H6J-1024 Main St., Pleasanton

QC Sample Group: 1101081-96

Reported: Oct 29, 1991

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020
Analyst:	R.H./J.F.	R.H./J.F.	R.H./J.F.	R.H./J.F.
Reporting Units:	ug/L	ug/L	ug/L	ug/L
Date Analyzed:	Oct 26, 1991	Oct 26, 1991	Oct 26, 1991	Oct 26, 1991
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2
Conc. Matrix Spike:	0.40	0.41	0.43	1.3
Matrix Spike % Recovery:	100	102	108	108
Conc. Matrix Spike Dup.:	0.42	0.42	0.44	1.3
Matrix Spike Duplicate % Recovery:	105	105	110	108
Relative % Difference:	4.9	2.4	2.3	0

Laboratory blank contained the following analytes: None Detected

SEQUOIA ANALYTICAL

Julia R. Malerstein
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Atlas Geoscience	Site SS #: 18-467	Phase of Work:
Address: 528 Oxford Circle	Mobil Site Address: 1024 Main St, Pleasanton	☐ A. Emrg. Response
City: Dublin State: CA Zip Code: 94520	Mobil Engineer: Mr. Ed. Hoepker	☐ B. Site Assessment
Telephone: (510) 682-1582 FAX #: 682-8921	Consultant Project #: 30-0065	☐ C. Remediation
Project Contact: Cherie D'Andrea Sampled by: Gerry Nieder-Westermann	Sequoia's Work Order Release #:	☐ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☐ Standard TAT (5 - 10 Working Days) Pg 2 of 3
☒ Other 24 hr Rush

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2	[illegible]	Comments
[illegible]	10/25 11:10	Soil	1		X					
2. B-16 @ 8'	11:50									1101087
3. B-16 @ 12.5'	12:40									88
4. B-17 @ 5'	1:20									89
5. B-17 @ 10'	1:30									90
6. B-17 @ 14'	1:40									91
7. B-18 @ 2'	1:50									92
8. B-18 @ 5'	2:00									93
9. B-18 @ 7'	2:10									94
10. B-18 @ 10'	2:20									95

Relinquished By: [illegible]	Date: 10/25/91	Time: 5:00	Received By: M. Mitchell	Date: 10-25	Time: 1800
Relinquished By: M. Mitchell	Date: 10-25	Time: 6:30	Received By: Bob Melson	Date: 10-25	Time: 1800
Relinquished By: Bob Melson	Date: 10/25	Time: 7:25	Received By: [illegible]	Date: 10/25	Time: 1930

Method of Shipment _____

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: AMW Geoscience	Site SS #: 10-HGJ	Phase of Work:
Address: 7528 Oxford Circle	Mobil Site Address: 1024 Main St, Pleasanton	☐ A. Emrg. Response
City: Dublin State: CA Zip Code: 94520	Mobil Engineer: Ed Hoepker	☐ B. Site Assessment
Telephone: (510) 682-1582 FAX #: 682-8921	Consultant Project #: 30-0065	☐ C. Remediation
Project Contact: Cherie D'Andrea Sampled By: Gerry Wieder-Westermann	Sequoia's Work Order Release #:	☐ D. Monitoring
		☐ E. OGC/Claims

Turnaround Time: ☐ Standard TAT (5 - 10 Working Days) PJ 3-3
☑ Other 24 hr Rush

Analyses Requested

	Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2					Comments
✓	1. PS-18 @ 14'	10/25/91 4:30	Soil	1		X								1101096
	2.													
	3.													
	4.													
	5.													
	6.													
	7.													
	8.													
	9.													
	10.													

Relinquished By:	Date: 10-26-91	Time: 5100	Received By:	Date: 10-26	Time: 1800
Relinquished By:	Date: 10-26	Time:	Received By:	Date: 10-26	Time: 18:00
Relinquished By:	Date: 10-26	Time: 1925	Received By:	Date: 10/25	Time: 1930

Method of Shipment _____

Page ...

Mobil Chain of Custody

SEQUOIA ANALYTICAL

Redwood City: (415) 364-9600
Concord: (510) 686-9600
Sacramento: (916) 921-9600

Consulting Firm Name: Alton Geoscience	Site SS #: 10-R6J
Address: 1000 Burnett Ave, Ste 140	Mobil Site Address: 104 Main St. Pleasanton
City: Concord State: CA Zip Code: 94520	Mobil Engineer: Ed Hoeptner
Telephone: (510) 682-1582 FAX #: (510) 682-8421	Consultant Project #: 30-0065
Project Contact: Cheric Andrews / Pete Lange Sampled by: Gerry Nieforth-Westerman	Sequoia's Work Order Release #:

Phase of Work:
- ☐ A. Emrg. Response
- ☐ B. Site Assessment
- ☐ C. Remediation
- ☐ D. Monitoring
- ☐ E. OGC/Claims

Turnaround Time: ☐ Standard TAT (5 - 10 Working Days) ☒ Other 24 hr

Pg 1 of 3

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Description	# of Containers	Sequoia's Sample #	TPH Gas/BTEX	TPH Diesel	TRPH by I.R. EPA 418.1	Oil & Grease EPA 413.2	~~STLC~~				Comments
✓ 1. PS-12 @ 3'	10/25/91 10:00	Soil	1		X								1101081
✓ 2. PS-12 @ 10.5'	10:10		1		X								82
✓ 3. PS-12 @ 15'	10:20		1		X								83
[redacted]	10:30		1					~~X~~					
✓ [redacted]	10:40		1					~~X~~					
✓ 6. PS-14 @ 5'	10:50		1		X								1101084
✓ 7. PS-14 @ 10'	11:00		1		X								85
✓ 8. PS-14 @ 14'	11:10		1		X								86
[redacted]	11:20		1					~~X~~					
[redacted]	11:30		1					~~X~~					

Relinquished By: [signature]	Date: 10/25/91	Time: 5:00	Received By: M. Mitchell	Date: 10-25	Time: 18:00
Relinquished By: M. Mitchell	Date: 10-25	Time: 6:30	Received By: Bob Melson	Date: 10-25	Time: 18:00
Relinquished By: Bob Melson	Date: 10-25	Time: 7:25	Received By: [signature]	Date: 10/25	Time: 19:30

Method of Shipment ________

Page of

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Alton Geoscience	Client Project ID:	Mobil #10-H6J/30-0065-05	Sampled: Jan 21, 1992
1000 Burnett Ave., #140	Matrix Descript:	Soil	Received: Jan 22, 1992
Concord, CA 94520	Analysis Method:	EPA 5030/8015/8020	Analyzed: 1/24,1/27/92
Attention: Cherie D'Andrea	First Sample #:	201-0624	Reported: Jan 30, 1992

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
201-0624	SB-14 3-3.5	N.D.	N.D.	N.D.	N.D.	N.D.
201-0625	SB-14 6-6.5	N.D.	N.D.	N.D.	N.D.	N.D.
201-0626	SB-15 3-3.5	N.D.	N.D.	N.D.	N.D.	N.D.
201-0627	SB-15 6-6.5	N.D.	N.D.	N.D.	N.D.	N.D.
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience
1000 Burnett Ave., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05
Matrix Descript: Soil
Analysis Method: EPA 413.2 (I.R.)
First Sample #: 201-0625

Sampled: Jan 21, 1992
Received: Jan 22, 1992
Extracted: Jan 29, 1992
Analyzed: Jan 29, 1992
Reported: Jan 30, 1992

TOTAL RECOVERABLE OIL & GREASE

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
201-0625	SB-14 6-6.5	N.D.

Detection Limits:	3.3

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

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Alton Geoscience
1000 Burnett Ave., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05
Sample Descript: Soil, SB-14 6-6.5
Analysis Method: EPA 5030/8010
Lab Number: 201-0625

Sampled: Jan 21, 1992
Received: Jan 22, 1992
Analyzed: Jan 27, 1992
Reported: Jan 30, 1992

HALOGENATED VOLATILE ORGANICS (EPA 8010)

Analyte	Detection Limit µg/kg	Sample Results µg/kg
Bromodichloromethane	5.0	N.D.
Bromoform	10	N.D.
Bromomethane	10	N.D.
Carbon tetrachloride	5.0	N.D.
Chlorobenzene	5.0	N.D.
Chloroethane	10	N.D.
2-Chloroethylvinyl ether	10	N.D.
Chloroform	5.0	N.D.
Chloromethane	10	N.D.
Dibromochloromethane	5.0	N.D.
1,2-Dichlorobenzene	5.0	N.D.
1,3-Dichlorobenzene	5.0	N.D.
1,4-Dichlorobenzene	5.0	N.D.
1,1-Dichloroethane	5.0	N.D.
1,2-Dichloroethane	5.0	N.D.
1,1-Dichloroethene	5.0	N.D.
cis-1,2-Dichloroethene	5.0	N.D.
trans-1,2-Dichloroethene	5.0	N.D.
1,2-Dichloropropane	5.0	N.D.
cis-1,3-Dichloropropene	10	N.D.
trans-1,3-Dichloropropene	10	N.D.
Methylene chloride	20	N.D.
1,1,2,2-Tetrachloroethane	5.0	N.D.
Tetrachloroethene	5.0	N.D.
1,1,1-Trichloroethane	5.0	N.D.
1,1,2-Trichloroethane	5.0	N.D.
Trichloroethene	5.0	N.D.
Trichlorofluoromethane	10	N.D.
Vinyl chloride	10	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Alton Geoscience	Client Project ID:	Mobil #10-H6J/30-0065-05	Sampled: Jan 21, 1992
1000 Burnett Ave., #140	Sample Descript:	Soil, SB-14 6-6.5	Received: Jan 22, 1992
Concord, CA 94520			Extracted: 1/22-1/24/92
Attention: Cherie D'Andrea	Lab Number:	201-0625	Reported: Jan 30, 1992

INORGANIC PERSISTENT AND BIOACCUMULATIVE TOXIC SUBSTANCES

Analyte	Soluble Threshold Limit Concentration (Waste Extraction Test) STLC Max. Limit (mg/L)	Detection Limit (mg/L)	Analysis Result (mg/L)	Total Threshold Limit Concentration TTLC Max. Limit (mg/kg)	Detection Limit (mg/kg)	Analysis Result (mg/kg)
Antimony	15	0.050	-	500	5.0	13
Arsenic	5	0.010	-	500	5.0	N.D.
Barium	100	0.10	9.0	10,000	5.0	370
Beryllium	0.75	0.010	-	75	0.50	0.51
Cadmium	1	0.010	-	100	0.50	N.D.
Chromium (VI)	5	0.0050	-	500	0.050	N.D.
Chromium (III)	560	0.010	-	2,500	0.50	48
Cobalt	80	0.050	-	8,000	2.5	18
Copper	25	0.010	0.45	2,500	0.50	33
Lead	5.0	0.10	N.D.	1,000	5.0	11
Mercury	0.2	0.00020	-	20	0.010	0.050
Molybdenum	350	0.050	-	3,500	2.5	N.D.
Nickel	20	0.050	0.48	2,000	2.5	75
Selenium	1	0.010	-	100	5.0	N.D.
Silver	5	0.010	-	500	0.50	N.D.
Thallium	7	0.50	-	700	5.0	N.D.
Vanadium	24	0.050	0.18	2,400	2.5	39
Zinc	250	0.010	-	5,000	0.50	71
Asbestos	-	10	-	10,000	100	-
Fluoride	180	0.10	-	18,000	1.0	-

TTLC results are reported as mg/kg of wet weight. Asbestos results are reported as fibers/g.
Analytes reported as N.D. were not present above the stated limit of detection.

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Scott A. Chieffo
Project Manager

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Alton Geoscience
1000 Burnett Ave., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05

QC Sample Group: 2010624-627

Reported: Jan 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes	Lead
Method:	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 8015/8020	EPA 200.7
Analyst:	K.N.	K.N.	K.N.	K.N.	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/L
Date Analyzed:	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 27, 1992
QC Sample #:	Matrix Blank	Matrix Blank	Matrix Blank	Matrix Blank	201-2443
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	0.40	0.40	0.40	1.2	1.0
Conc. Matrix Spike:	0.31	0.32	0.32	1.1	0.76
Matrix Spike % Recovery:	78	80	80	92	76
Conc. Matrix Spike Dup.:	0.33	0.33	0.34	1.2	0.83
Matrix Spike Duplicate % Recovery:	82	82	85	100	83
Relative % Difference:	6.2	3.1	6.0	8.6	8.8

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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Alton Geoscience
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Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05

QC Sample Group: 2010624-627

Reported: Jan 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene	1,1-Dichloroethene	Trichloro-ethene	Chloro-benzene
Method:	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010	EPA 8010
Analyst:	A. Fulcher	A. Fulcher	A. Fulcher	M. Nguyen	M. Nguyen	M. Nguyen
Reporting Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Date Analyzed:	Jan 27, 1992	Jan 27, 1992	Jan 27, 1992	Jan 28, 1992	Jan 28, 1992	Jan 28, 1992
QC Sample #:	Matix Blank	Matix Blank	Matix Blank	Matix Blank	Matix Blank	Matix Blank
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	5.0	5.0	5.0	10	10	10
Conc. Matrix Spike:	5.5	5.3	5.7	9.4	10	9.8
Matrix Spike % Recovery:	110	106	114	94	100	98
Conc. Matrix Spike Dup.:	6.0	6.4	6.0	8.2	10	9.8
Matrix Spike Duplicate % Recovery:	120	128	120	82	100	98
Relative % Difference:	8.7	19	5.1	14	0.0	0.0

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery:	Conc. of M.S. - Conc. of Sample / Spike Conc. Added	x 100
Relative % Difference:	Conc. of M.S. - Conc. of M.S.D. / (Conc. of M.S. + Conc. of M.S.D.) / 2	x 100

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Alton Geoscience
1000 Burnett Ave., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05

QC Sample Group: 2010624-627

Reported: Jan 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Antimony	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992
QC Sample #:	201-3003	201-3003	201-3003	201-3003	201-3003	201-3003	201-3003
Sample Conc.:	13	370	0.51	N. D.	48	18	33
Spike Conc. Added:	100	5000	100	100	100	100	100
Conc. Matrix Spike:	100	5700	92	92	140	110	150
Matrix Spike % Recovery:	87	107	91	92	92	92	117
Conc. Matrix Spike Dup.:	95	5100	92	89	140	110	150
Matrix Spike Duplicate % Recovery:	82	95	91	89	92	92	117
Relative % Difference:	5.1	11	0.0	3.3	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\%\ \text{Recovery:} = \frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} = \frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$$

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Alton Geoscience
1000 Burnett Ave., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05

QC Sample Group: 2010624-627

Reported: Jan 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Molybdenum	Nickel	Silver	Thallium	Vanadium	Zinc	Arsenic
Method:	EPA 6010	EPA 6010	EPA 6010	EPA 7841	EPA 6010	EPA 6010	EPA 7060
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Date Analyzed:	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992
QC Sample #:	201-3003	201-3003	201-3003	201-3003	201-3003	201-3003	201-3003
Sample Conc.:	N. D.	75	N. D.	N. D.	39	71	N. D.
Spike Conc. Added:	100	100	100	100	100	100	5000
Conc. Matrix Spike:	94	160	99	110	150	150	4000
Matrix Spike % Recovery:	94	85	99	110	111	79	80
Conc. Matrix Spike Dup.:	94	160	99	110	150	150	4000
Matrix Spike Duplicate % Recovery:	94	85	99	110	110	79	80
Relative % Difference:	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

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Alton Geoscience
1000 Burnett Ave., #140
Concord, CA 94520
Attention: Cherie D'Andrea

Client Project ID: Mobil #10-H6J/30-0065-05

QC Sample Group: 2010624-627

Reported: Jan 30, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Selenium	Lead	Mercury	Barium	Copper	Nickel	Vanadium
Method:	EPA 6010	EPA 6010	EPA 7471	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7
Analyst:	C. Medefesser	C. Medefesser	J. Martinez	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
Reporting Units:	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/L	mg/L
Date Analyzed:	Jan 24, 1992	Jan 24, 1992	Jan 24, 1992	Jan 27, 1992	Jan 27, 1992	Jan 27, 1992	Jan 27, 1992
QC Sample #:	201-3003	201-3003	201-3003	201-2443	201-2443	201-2443	201-2443
Sample Conc.:	N. D.	11	0.050	N. D.	0.13	N. D.	N. D.
Spike Conc. Added:	5000	100	0.10	1.0	1.0	1.0	1.0
Conc. Matrix Spike:	4300	110	0.14	0.79	1.0	0.80	0.82
Matrix Spike % Recovery:	86	99	90	79	87	80	82
Conc. Matrix Spike Dup.:	4200	99	0.14	0.84	1.0	0.86	0.88
Matrix Spike Duplicate % Recovery:	84	88	90	84	87	86	88
Relative % Difference:	2.4	11	0.0	6.1	0.0	7.2	7.1

SEQUOIA ANALYTICAL

Scott A. Chieffo
Project Manager

% Recovery: $\frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$

Relative % Difference: $\frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$