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SITE CONCEPTUAL MODEL

for
Chevron Service Station #9-0290
1802 Webster Street
Alameda, California

Report No. 345280.02-1

Prepared for:

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October 24, 2000

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SITE CONCEPTUAL MODEL

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1.0 INTRODUCTION

At the request of Chevron Products Company (Chevron), Gettler-Ryan Inc. (GR) is submitting this report presenting the site conceptual model (SCM) for the Chevron Service Station #9-0290 located at 1802 Webster Street in Alameda, California. The purpose of this work was to evaluate whether the implementation of further environmental investigation and/or remediation related to soil and groundwater is warranted at the site. This report was prepared based on information supplied by Chevron, and describes site hydrogeological conditions and distribution of contaminants in space and time, identifies potential current and future receptors, and recommends an appropriate action plan for the site.

2.0 SITE DESCRIPTION

2.1 General

The subject site is an operating service station located at the northeastern corner of the intersection of Webster Street and Buena Vista Avenue in Alameda, California (Figure 1). Site topography is flat at the elevation of approximately 12 feet above mean see level. Four 10,000-gallon gasoline underground storage tanks (USTs) are located in the common pit in the southwestern portion of the site. A waste oil UST is located south of the station building. Two former waste oil USTs were located near the southeastern corner of the gasoline UST pit. Locations of the USTs and other pertinent site features are shown on Figure 2.

The site vicinity is used for residential, commercial, and transportation purposes. The subject site is bounded by an apartment complex to the east, Jack in The Box restaurant to the north, Webster Street to the west and Buena Vista Street to the south. One of the residential buildings at the apartment complex site is situated immediately southeast of the subject service station building. Another building is situated approximately 50 feet northeast of the subject site northern boundary. Single family houses and a 76 Service Station are located southeast and south of the subject site, respectively, across Buena Vista Avenue. The Jack in The Box restaurant building is located approximately 65 feet north of the subject property border. Commercial buildings (auto repair shop, Better Buy Liqueur Store, Fred's Wrenchhouse, KFC restaurant) and parking lots are located northwest, west, and southwest of the subject site, across Webster Street. The subject site vicinity is shown on Figure 2.

2.2 Previous Environmental Work

1981/1982 Leak Detection and Installation of Wells B-1 through B-6

A hydrocarbon leak (approximately 50 gallons of gasoline) was documented at the subject site in 1981. Six groundwater monitoring wells (B-1 through B-6) were installed at the site in January 1982 by Kleinfelder & Associates (K&A) to evaluate the extent of hydrocarbon impact to groundwater. Groundwater was encountered at a depth ranging from 3.5 to 4.5 feet below ground surface (bgs). No soil or groundwater samples were collected for laboratory analysis, however, groundwater samples were analyzed for volatile hydrocarbons using a combustible gas meter. Hydrocarbon vapor concentrations were detected in wells B-1 through B-4 at concentrations ranging from 100 to >1,000 parts per million (ppm). The 10,000-gallon regular gasoline UST was removed from service after a hole was found near the tank fill pipe.

1982 USTs Removal/Replacement, Installation of Wells A-1 and A-2, and Destruction of Well B-2

In 1982, the UST system was replaced. A gauge stick hole was observed in the bottom of the regular gasoline UST. Samples were not collected. New gasoline USTs were installed. In addition, a new diesel and two waste oil USTs were installed. Two backfill monitoring wells (A-1 and A-2) were installed at the time of UST replacement. Monitoring well B-2 was destroyed to accommodate the new UST installation.

1991 Diesel Release

On September 19, 1991, approximately 1,400 gallons of diesel were accidentally pumped into tank backfill well A-1 during UST testing activities. Product removal commenced immediately. Approximately 1,600 gallons of separate-phase hydrocarbons (SPH) were removed from well A-1. Additional 346 gallons of SPH were removed during a SPH recovery program conducted by Pacific Environmental Group Inc. (PEG) from September 1991 through July 1992. Laboratory analysis of the free product suggested that waste-oil must also have been inadvertently disposed of into well A-1. A groundwater sampling program was initiated in September 1991.

1993 Installation of Wells B-7 through B-9

In March 1993, one additional on-site groundwater monitoring well (B-8) and two off-site wells (B-7 and B-9) were installed by GTI to delineate the lateral extent of hydrocarbon impacted soil and groundwater at the site. Groundwater was encountered in borings B-7 through B-9 at 5 feet bgs. Soil samples collected from the borings at 5 feet bgs did not contain total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), or benzene, toluene, ethylbenzene or xylenes (BTEX). Soil sample results are summarized in GTI's Table 1 included in Appendix A.

Waste Oil UST and Line Removal and Destruction of Wells A-2, B-3 and B-4

In April and May 1994, Touchstone Developments (TD) collected samples during removal of one 1,000 gallon waste oil UST, one 350-gallon waste oil UST and fuel product lines. Hydrocarbons were detected in soil beneath the 1,000-gallon waste oil UST (up to 440 ppm TPHg, 410 ppm TPHd, and 77 ppm, total oil and grease [TOG]), beneath the 350-gallon waste oil UST (1,200 ppm TPHg, 580 ppm TPHd, 580 ppm TOG, and 0.64 ppm benzene), and beneath the product piping (up to 4,900 ppm TPHg and 4.6 ppm benzene). Volatile organic compounds (VOs) or semivolatile organic compounds (SVOs) were not detected in the samples collected from

the waste oil UST excavations with the exception of TCE (0.017 ppm). Sample locations are shown on TD's Figure 2 and soil sample results are summarized in TD's Table 1 included in Appendix A. Approximately 700 cubic yards of soil were excavated from the waste oil tank pits and from beneath the product lines and removed from the site. Monitoring wells A-2, B-3 and B-4 were destroyed during UST removal activities.

1995 Installation of Wells B-10 through B-13

In March 1995, four additional on-site groundwater monitoring wells (B-10 through B-13) were installed at the site by GR to further assess the extent of hydrocarbons within subsurface. Groundwater was encountered at approximately 7 feet bgs in borings B-10, B-12 and B-13 and at 1 foot bgs in boring B-11. TPHg were detected in the soil samples collected from borings B-10 through B-12 at concentrations ranging from 69 ppm to 1,900 ppm, and were not detected in the soil sample from boring B-13. TPHd (1.1 ppm to 330 ppm) were detected in samples from all borings. Benzene (0.78 ppm) was detected in the soil sample collected from boring B-10, and was reported as not detected in samples collected from other borings, however, the detection limits were raised for the samples collected from borings B-11 and B-12. MtBE was detected in the soil samples collected from borings B-11 (17 ppm) and B-12 (8.2 ppm). Soil sample results are shown in GR's Table 1 included in Appendix A. Hydrocarbon concentrations in soil in the smear zone are depicted on Figure 4.

Groundwater Monitoring and Sampling

Groundwater monitoring and sampling of site wells began in September 1991. Summary of groundwater monitoring and sampling data is presented in Blaine Tech Services, Inc. (Blaine Tech) table included in Appendix B. Historically, depth to groundwater beneath the site has ranged from 2 to 8 feet bgs. Groundwater flowed to the southeast prior to January 1993. Recently, the flow direction has been fluctuating between northeast and northwest. The gradient has ranged from 0.006 to 0.02. Potentiometric maps are included in Appendix C.

The groundwater sampling data indicate that groundwater beneath the site has been impacted by hydrocarbons at concentrations up to 40,000 parts per billion (ppb) of TPHg, 4,900 ppb of benzene, 88,000 ppb of MtBE, 22,000 ppb of TPHd, 8,000 ppb of TOG, and 68,400 ppb of motor oil. The highest dissolved hydrocarbon concentrations have been present in the vicinity of the service islands. Hydrocarbons have not been detected in off-site wells except once (low concentrations).

SPH have been present in wells A-1 and A-2 (up to 1.58 feet just after accidental diesel release), and on few occasions in wells B-3 and B-4 (up to 0.01 feet). SPH have been removed from the wells by bailing and use of absorbent pads. During the November 1999 monitoring event well A-1 contained 0.04 feet of SPH.

Hydrocarbons concentrations in on-site wells have been decreasing, with the exception of well B-6. TPHg (655 ppb) was detected in this well in November 1998 after several quarters with nondetectable results. A TPHd concentration in this well has been increasing. Well B-6 also contains an elevated concentration of MtBE compared to nearest wells in the downgradient direction.

Bio-parameters were measured in on-site wells in 1998 for evaluation of intrinsic bioremediation processes at the site. The results are summarized in Blaine Tech *Additional Analyses* table included in Appendix B. The comparison of bio-parameters and BTEX concentrations in the on-site wells is shown on the graphs included in Appendix D.

The May 1999 sampling data confirmed that groundwater beneath the site is not impacted by VOs or SVOs. Concentrations of metals in groundwater beneath the site were nondetectable (cadmium and lead), below maximum contaminant levels (MCLs) for drinking water (zinc) or only slightly above MCLs (chromium and nickel). The analytical results for metals are summarized in Blaine Tech *Additional Analyses* table included in Appendix B.

2.2 Geology and Hydrogeology

The subject site is located on Alameda Island at the northeastern shore of San Francisco Bay, approximately 1/4 mile south of the Oakland Inner Harbor and 1½ mile north of San Francisco Bay. As mapped by E.J. Helley and others (1979, *Flatland Deposits of the San Francisco Bay Region, California: U.S. Geological Survey Professional Paper 943)*, soil in the site vicinity consists of Holocene-age estuarine deposits consisting of unconsolidated dark plastic carbonaceous clay and silty clay (Bay Mud) overlying Pleistocene-age beach and dune sand deposits consisting of loose well sorted fine to medium sand (Merrit Sand). The nearest surface waters are the Oakland Inner Harbor and San Francisco Bay.

Historical groundwater monitoring data indicate that the shallow groundwater depth beneath the site has ranged from 2 to 8 feet bgs, and groundwater flow direction has fluctuated between southeast, northeast, and northwest. The gradient has ranged from 0.006 to 0.02. The boring logs indicate that the subject site is primarily underlain by fine sand to silty sand to the total depth explored of 18 feet bgs. Boring logs and geologic cross sections are included in Appendix E.

3.0 UNDERGROUND UTILITY SURVEY

GR conducted an underground utility study for the subject site in February 2000. The purpose of this study was to investigate the presence of preferential migration pathways and conduits in the vicinity of the subject site and to evaluate the probability of the hydrocarbon plume encountering these preferential pathways and conduits. The survey included review of underground utility maps and a site reconnaissance.

Plans showing sanitary and storm sewer lines in the vicinity of the subject site were obtained from the City of Alameda Department of Public Works (CADPW). Plans showing water lines were obtained from the East Bay Municipal Utility District (EBMUD). Pacific Gas and Electric Company (PG&E), and telephone companies were contacted to mark locations of their underground cables in the site vicinity. A site reconnaissance was conducted to confirm utility locations. The utility survey indicated that various underground utilities are present in the vicinity of the subject site including water, sanitary sewer, storm sewer, gas, electrical and telephone lines. Locations, flow directions, diameters, and depths of the underground lines in the vicinity of the subject site are shown on Figure 2.

Based on the plans reviewed, underground utilities in Webster Street include two 8-inch-diameter sanitary sewer lines, three water lines (6-, 24-, and 2-inch-diameter lines), a storm drain (18-inch-diameter line), and gas, electrical, and telephone lines. The sanitary sewer and storm drain lines in Webster Street slope to the north. The sanitary sewer lines are buried at the approximate depth of 8 feet bgs. The storm drain line is buried at the approximate depth of 5 feet bgs.

The underground utilities in Buena Vista Avenue include a storm drain line (12-inch-diameter line), two water lines (6-inch-diameter line west of Webster Street, and 12-inch-diameter lines east of Webster Street), two 8-inch-diameter sanitary sewer lines (east and west of Webster Street), and gas, electrical, and telephone lines. The sanitary sewer lines in Buena Vista Avenue slope to the west (east of Webster Street) or east (west of Webster Street) and connect to the sewer lines running along Webster Street. These lines are buried at the approximate depth of 8 feet bgs. The storm drain lines run across the street (sloping to the south) then toward the storm drain in Webster Street. A similar pattern of storm and sanitary sewer lines is present beneath Eagle Street located downgradient of the subject site.

Specific depths of water, electrical, gas, and telephone lines were not available. However, gas, electrical, and telephone lines are usually buried shallower than 5 feet bgs. According to the EBMUD, water lines are usually buried between 3 and 5 feet bgs.

4.0 SITE CONCEPTUAL MODEL

The site conceptual model was prepared based on the site assessment and quarterly monitoring and sampling data collected at the site to date. A pictorial representation of the site conceptual model is presented on Figure 3.

4.1 Release Scenario and Plume Characterization

A hydrocarbon leak was documented at the subject site in 1981. Environmental investigations conducted at the site indicated that soil and shallow groundwater beneath the site have been impacted by petroleum hydrocarbons. The potential primary sources of release (USTs) were replaced in 1982. In September 1991, approximately 1,400 gallons of diesel fuel were accidentally released into tank backfill well A-1. Product removal commenced immediately, and to date more free product was recovered from well A-1 than had been pumped into this well indicating that an additional release occurred. Laboratory analyses of free product indicated that waste oil must also have been inadvertently disposed of into well A-1. In 1994, two waste oil USTs (1,000-gallon UST and 350-gallon UST) were removed and fuel product lines were replaced. Hydrocarbons were detected in soil samples collected from beneath USTs and product piping. Approximately 700 cubic yards of soil were excavated from the vicinity of the former waste oil USTs and fuel product piping and properly disposed of off-site.

Hydrocarbon impacted soil (up to 580 ppm of TPHd, 4,900 ppm of TPHg, 4.6 of benzene, and 17 ppm of MtBE) is present beneath the subject site within the smear zone (2 to 8 feet bgs) over the area of the dissolved hydrocarbon plume (Figure 4). The most impacted soil appears to be present in the vicinity of the dispenser islands and UST complex. The lateral extent of hydrocarbon impacted soil has been delineated except to the north. Hydrocarbons are present in soil at the northern (downgradient) property boundary (in boring B-10) at concentrations of 330 ppm of TPHd, 69 ppm of TPHg and 0.75 ppm benzene. Soil at the northern property boundary does not contain MtBE.

Groundwater beneath the subject site has been monitored and sampled since September 1991 through the network of thirteen groundwater monitoring wells and two tank backfill wells. The groundwater sampling data indicate that groundwater beneath the subject site has been impacted by petroleum hydrocarbons at concentrations up to 40,000 ppb of TPHg, 4,900 ppb of benzene, 88,000 ppb of MtBE, 22,000 ppb of TPHd, 8,000 ppb of TOG, and 68,400 ppb of motor oil. VOs or SVOs are not present in groundwater beneath the subject site. Metals are not detected (cadmium, lead) or at low concentrations (chromium, zinc, nickel). The dissolved hydrocarbon plume appears to be contained in the vicinity of the USTs and dispensers islands. Hydrocarbon concentrations

in the on-site wells have been decreasing since the groundwater monitoring began, with the exception of upgradient well B-6. The groundwater sampling data from B-6 suggests that an off-site source may be involved. The lateral extent of hydrocarbon impacted groundwater beneath the subject site has been delineated to the west and east and has not been delineated to the north and south (Figures 5 through 8).

Based on the bio-parameter analyses, it appears that intrinsic bioremediation is occurring in the groundwater plume beneath the site, particularly in the area of wells B-11 and B-12. It appears that natural plume containment through natural attenuation processes such as sorption, dispersion, volatilization through the unsaturated zone, and bio-degradation have facilitated concentration decrease and limited hydrocarbon migration.

4.2 Potential Environmental Receptors

The hydrocarbon plume extends beneath the area, which currently is used for commercial purposes (gasoline sale) and transportation (Webster Street). Most of this area is paved with asphalt or concrete. The Chevron building is present within the plume area. The edges of the plume may extend beneath the Jack in The Box restaurant, however, the hydrocarbon concentrations in this area are expected to be low (if any). The nearest residential buildings (situated on the parcel bordering the subject site to the east) are outside the plume as evidenced by nondetectable hydrocarbon concentrations in wells B-8 and B-9. Water producing wells are not present at the subject site, however, it is unknown if water producing wells are present in the vicinity of the subject site.

The potential exposure receptors are current and future workers and customers of the Chevron station and Jack in The Box restaurant, motorists, pedestrians, and utility maintenance workers. The potential exposure mediums are ambient air, indoor air in commercial buildings, and soil and groundwater in potential future excavation areas. The major exposure pathway is hydrocarbon volatilization from smear zone soils and groundwater to ambient and indoor air. A dermal contact with hydrocarbon impacted soil and groundwater is the potential exposure pathway for utility maintenance workers (if utilities are present within the plume area). Water producing wells (if present within the plume area) may also be the potential plume receptors.

3.3 Other Environmental Issues

The lateral extent of hydrocarbon impacted soil and groundwater has not been fully delineated to the north (downgradient direction), especially beneath Webster Street, where several underground utilities are present.

Due to shallow groundwater (2 to 8 feet bgs), the underground utility trenches (up to 8 feet deep) may act as preferential pathways and conduits that could enhance contaminant migration.

The well survey has not been conducted, therefore it is not known if water producing wells (potential receptors or vertical conduits) exist in the vicinity of the site.

Based on the groundwater monitoring data collected from upgradient well B-6, the 76 Service Station site appears to be a potential additional source of hydrocarbons in the vicinity of the subject Chevron site.

4.0 DISCUSSION AND RECOMMENDATION

Site conditions consist of petroleum impacted soil and groundwater. Hydrocarbon impacted soil appears to be present within the smear zone between 2 and 8 feet bgs. Concentrations of hydrocarbons in groundwater beneath the site have been decreasing with the exception of upgradient well B-6. Intrinsic bioremediation appears to be occurring in the groundwater plume beneath the subject site, particularly in the area of wells B-11 and B-12. Natural attenuation processes appear to facilitate concentration decreases and limited hydrocarbon migration.

The dissolved hydrocarbon plume has been delineated to the east and west (crossgradient), however , the plume has not been delineated to the north (downgradient) and south (upgradient). The 76 Service Station site located upgradient of the subject site may be a potential secondary source of hydrocarbons beneath the southern portion of the Chevron site. The eastern edge of the plume may extend beneath Webster Street, where underground utilities are present. Due to shallow groundwater, the utility trenches may act as the preferential pathways and conduits that could enhance contaminant migration. It is not known if water producing wells (potential plume receptors or vertical conduits) are present in the subject site vicinity.

Since the primary sources have been removed and the plume appears to be shrinking, natural attenuation may be the preferable approach to remediate the site. However, before this approach is considered, potential threats to human health and the environment must be evaluated. The existing site data are not sufficient to perform an appropriate risk evaluation for the identified receptors (human receptors in the Chevron service station building, and in the Jack in The Box restaurant at the adjacent property). Therefore, GR recommends additional environmental investigation to obtain site specific data to be used in risk evaluation:

- Investigate groundwater condition beneath Webster Street by hand-augering eight off-site borings to groundwater (approximately 6 feet bgs) and obtaining soil and grab groundwater samples from the borings to delineate the downgradient extent of the Chevron plume and to determine if the utility trenches act as preferential pathways for plume migration. 11 hand augered boring proposed.

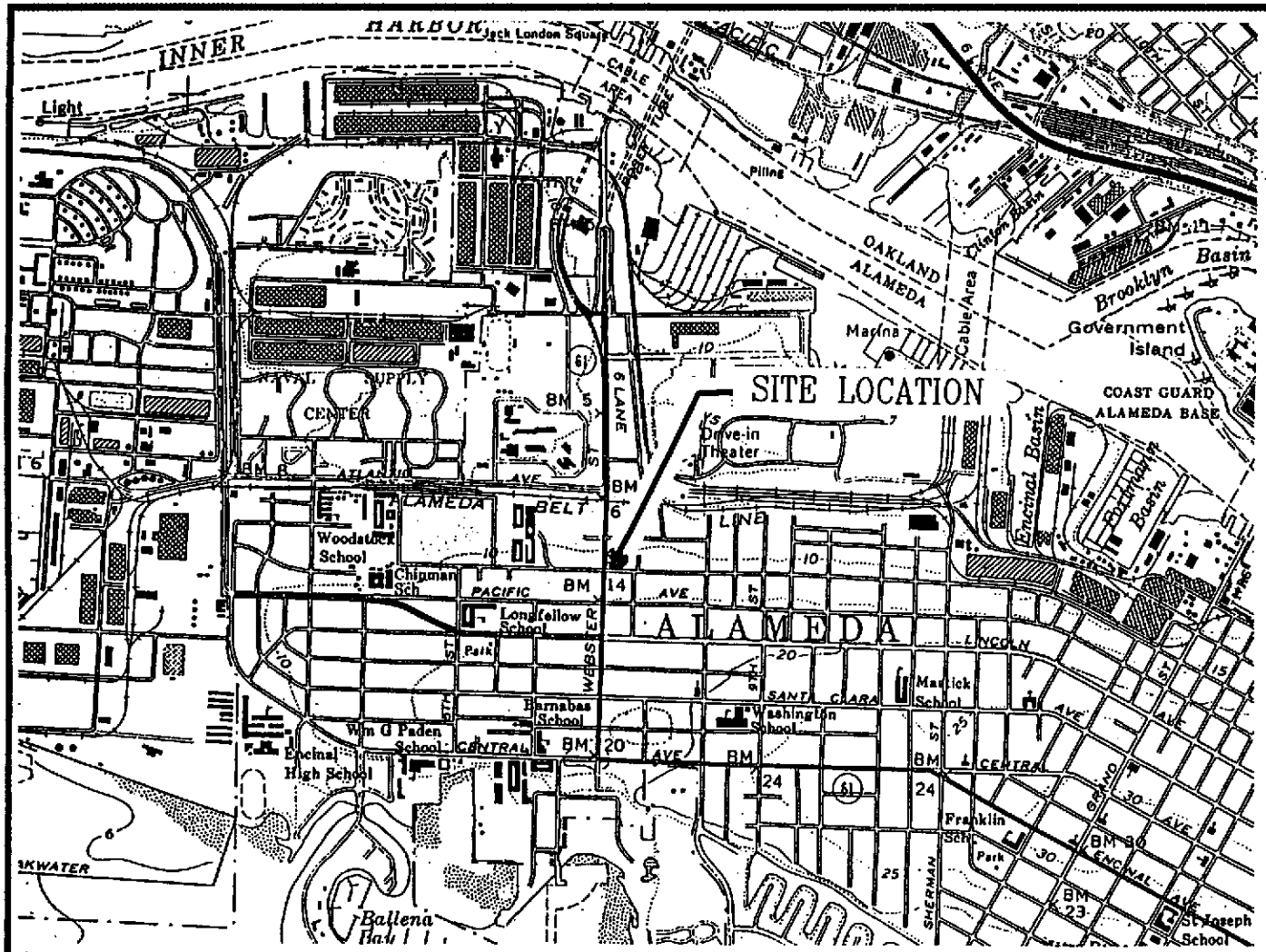
see Fig 2

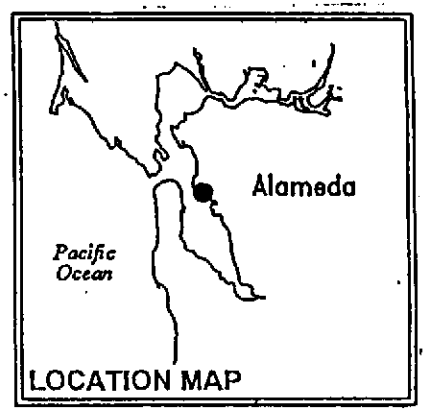
- Investigate soil condition near the station building by hand-augering three on-site borings and collecting unsaturated soil samples from the borings for analyses to be used in risk evaluation for the existing service station building. what about soil vapor samples for

- Perform ½ -mile radius well survey to evaluate the presence of wells which may be potential receptors or vertical conduits for hydrocarbon impacted groundwater present beneath the subject site. - just done by BP Oxocat

GR recommends conducting the Risk Based Corrective Action (RBCA) planning as described in ASTME-1739 based on the data collected from the borings to evaluate whether further evaluation and/or active remediation is necessary at the site.

what about some SB at Jack in Box site -





N

0 2000

Scale in Feet

Base Map: USGS Topographic Map

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VICINITY MAP
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

FIGURE
1

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5280			

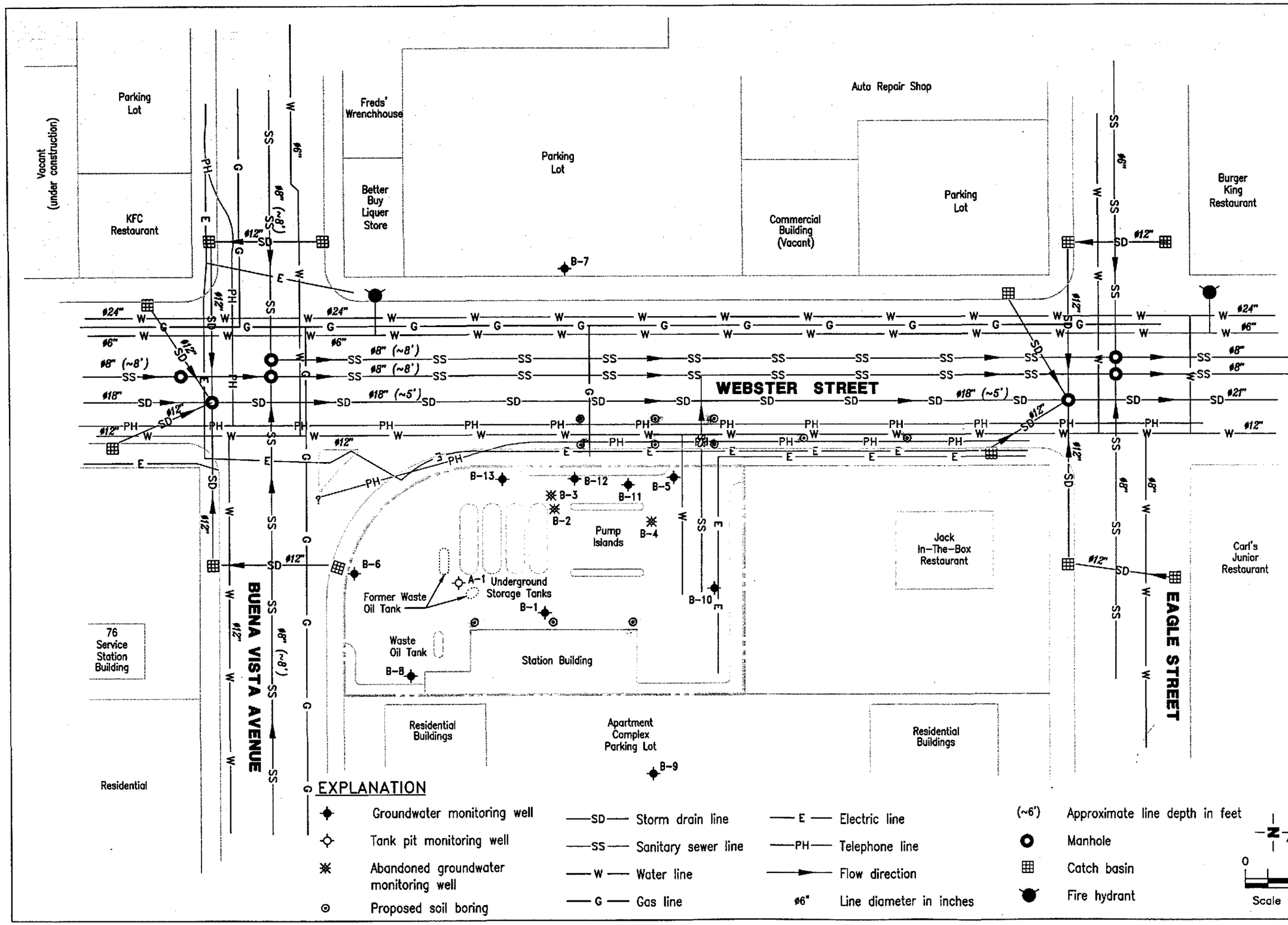

FIGURE 2

SITE PLAN/UTILITY MAP
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

DATE 03/00

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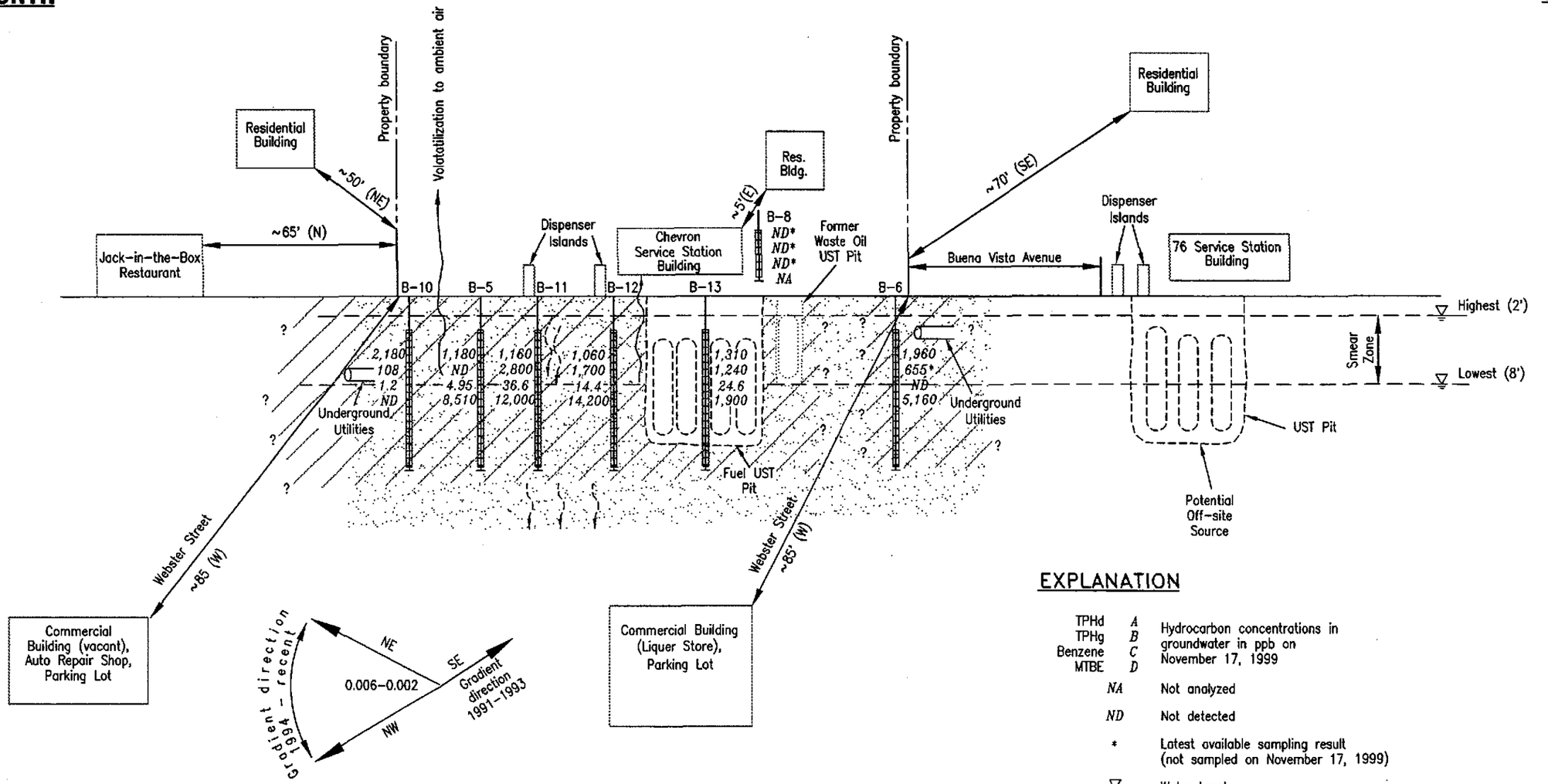
NORTH **SOUTH**



EXPLANATION

TPHd TPHg Benzene MTBE	*A* *B* *C* *D*	Hydrocarbon concentrations in groundwater in ppb on November 17, 1999
NA		Not analyzed
ND		Not detected
*		Latest available sampling result (not sampled on November 17, 1999)
		Water Level
		Sand to silty sand
		Hydrocarbon plume
		Hydrocarbon volatilization from soil and groundwater
		Leaching to shallow/deep groundwater

10
0
30
Scale in Feet
(Vertical Exaggeration: 3x)

FIGURE 3

SITE CONCEPTUAL MODEL
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

DATE 03/00

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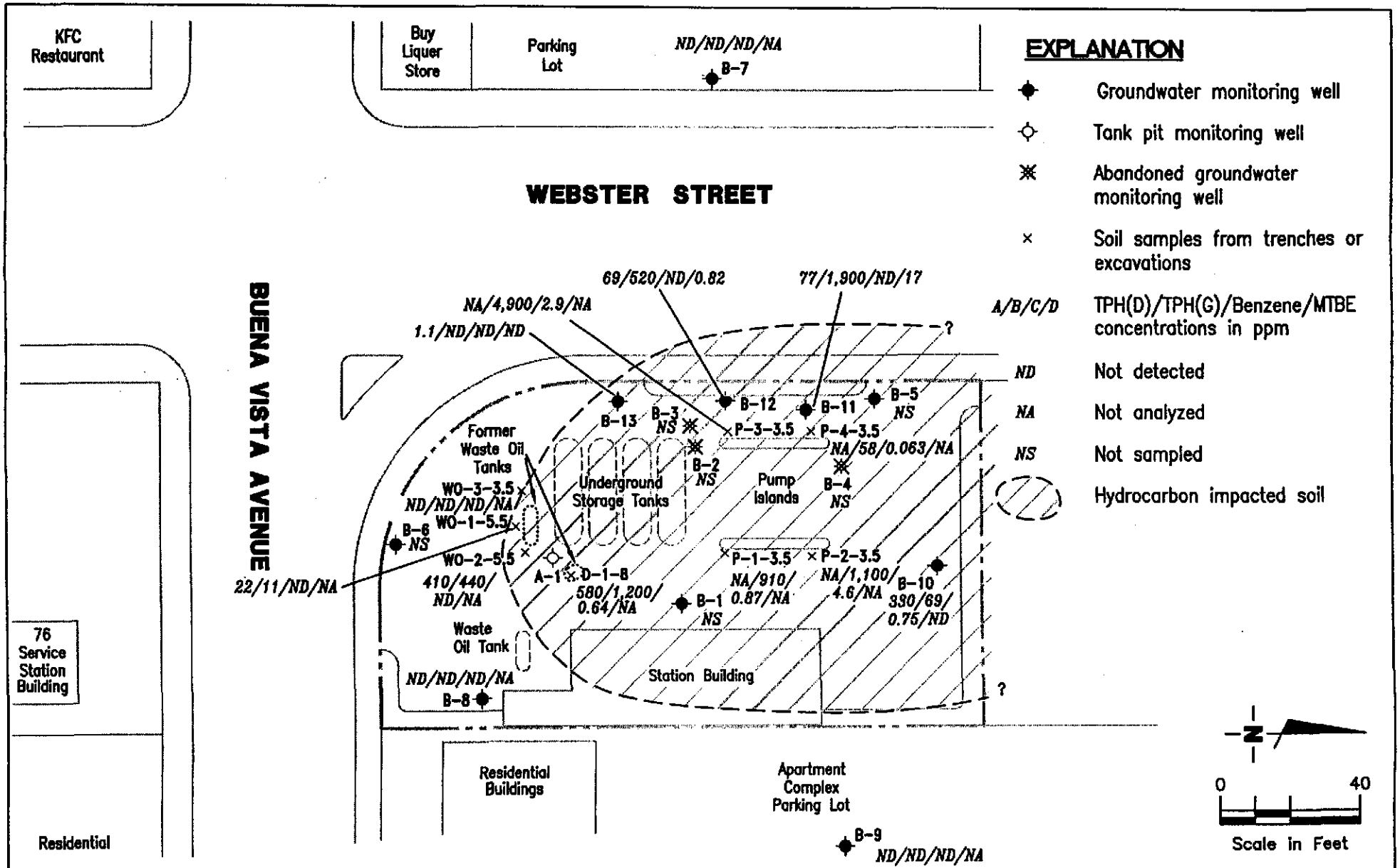

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HYDROCARBON CONCENTRATIONS IN SOIL IN SMEAR ZONE
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

FIGURE
4

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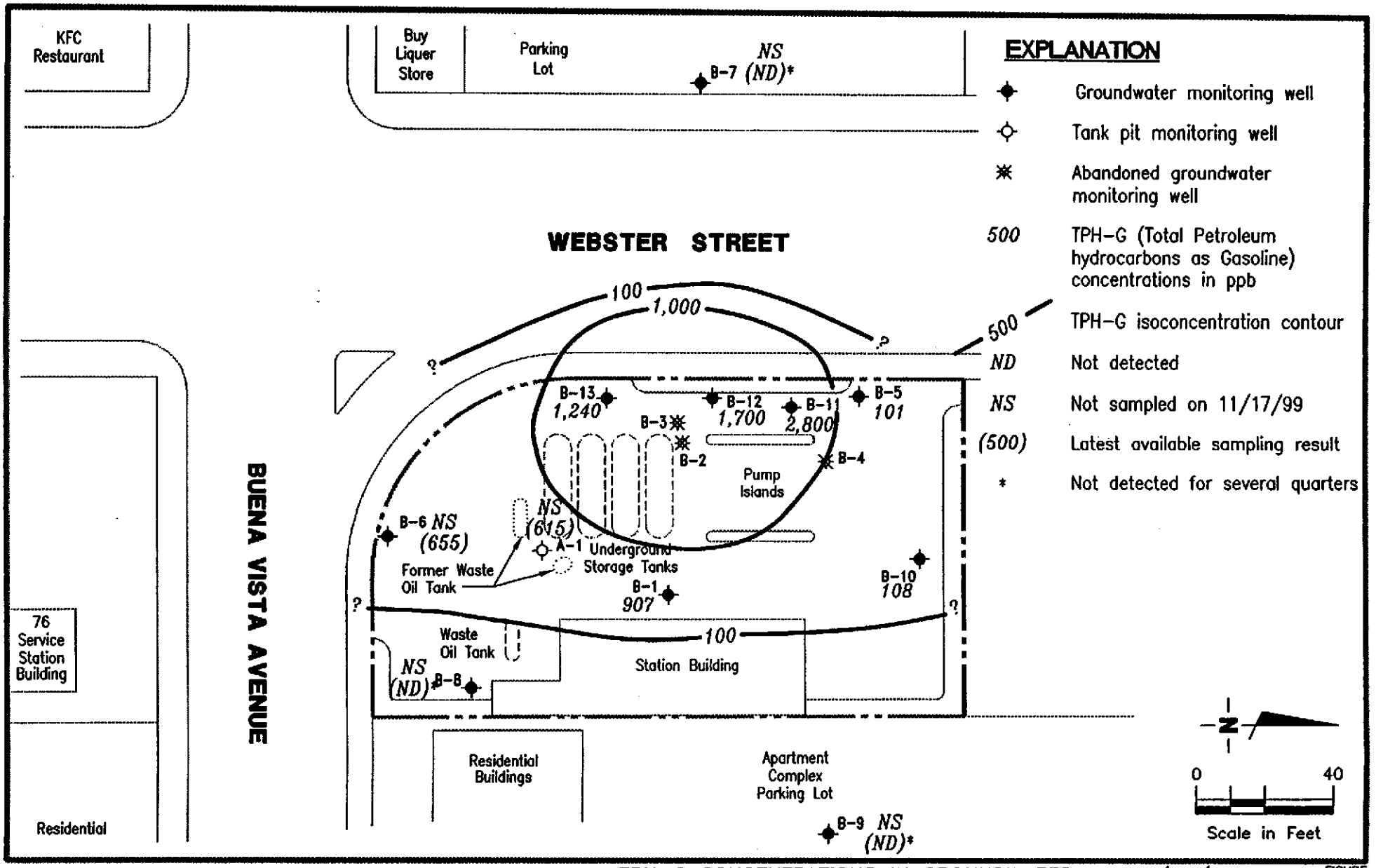

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TPH-G CONCENTRATIONS IN GROUNDWATER ON 11/17/99
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

FIGURE 5

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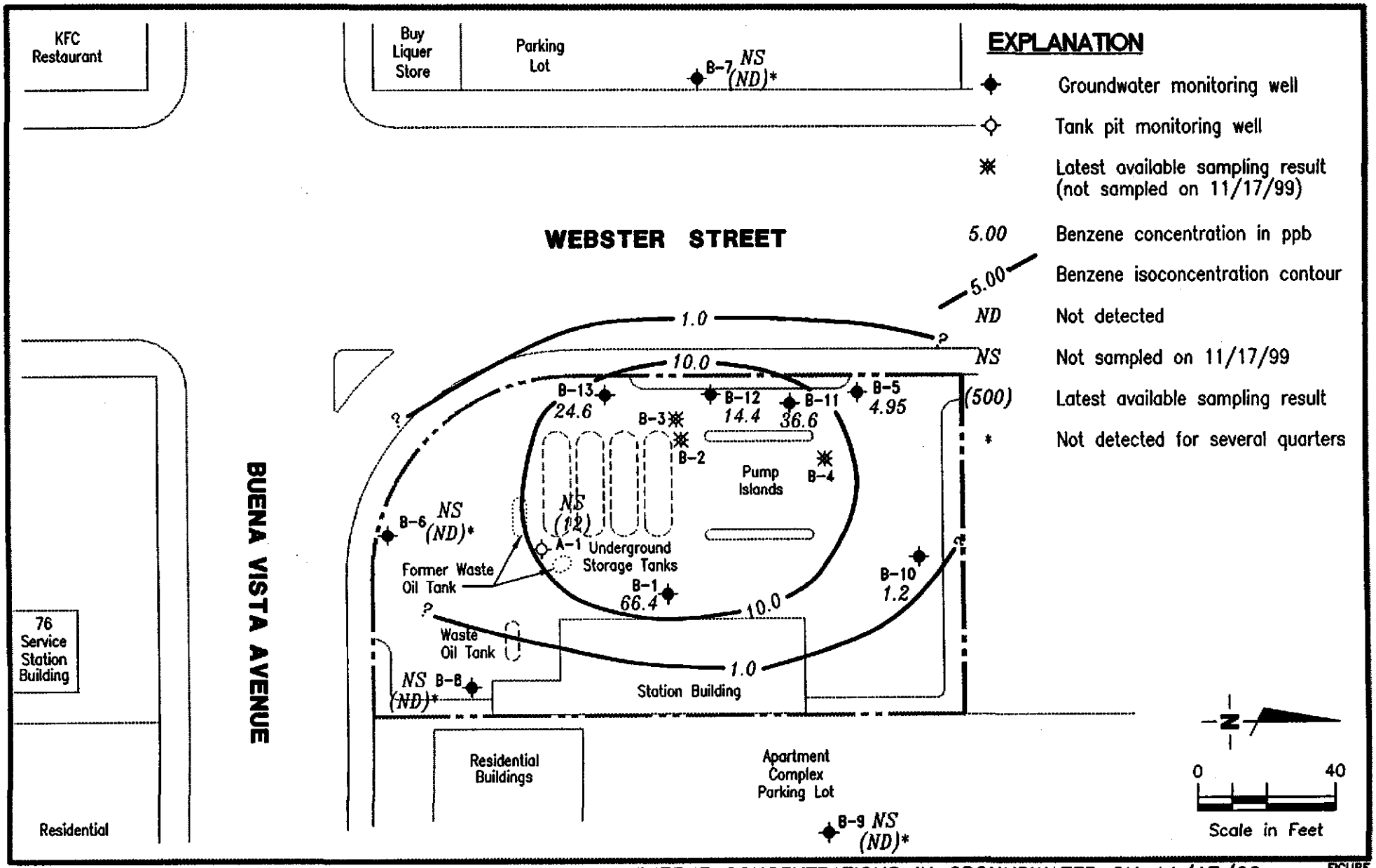

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BENZENE CONCENTRATIONS IN GROUNDWATER ON 11/17/99
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Alameda, California

FIGURE 6

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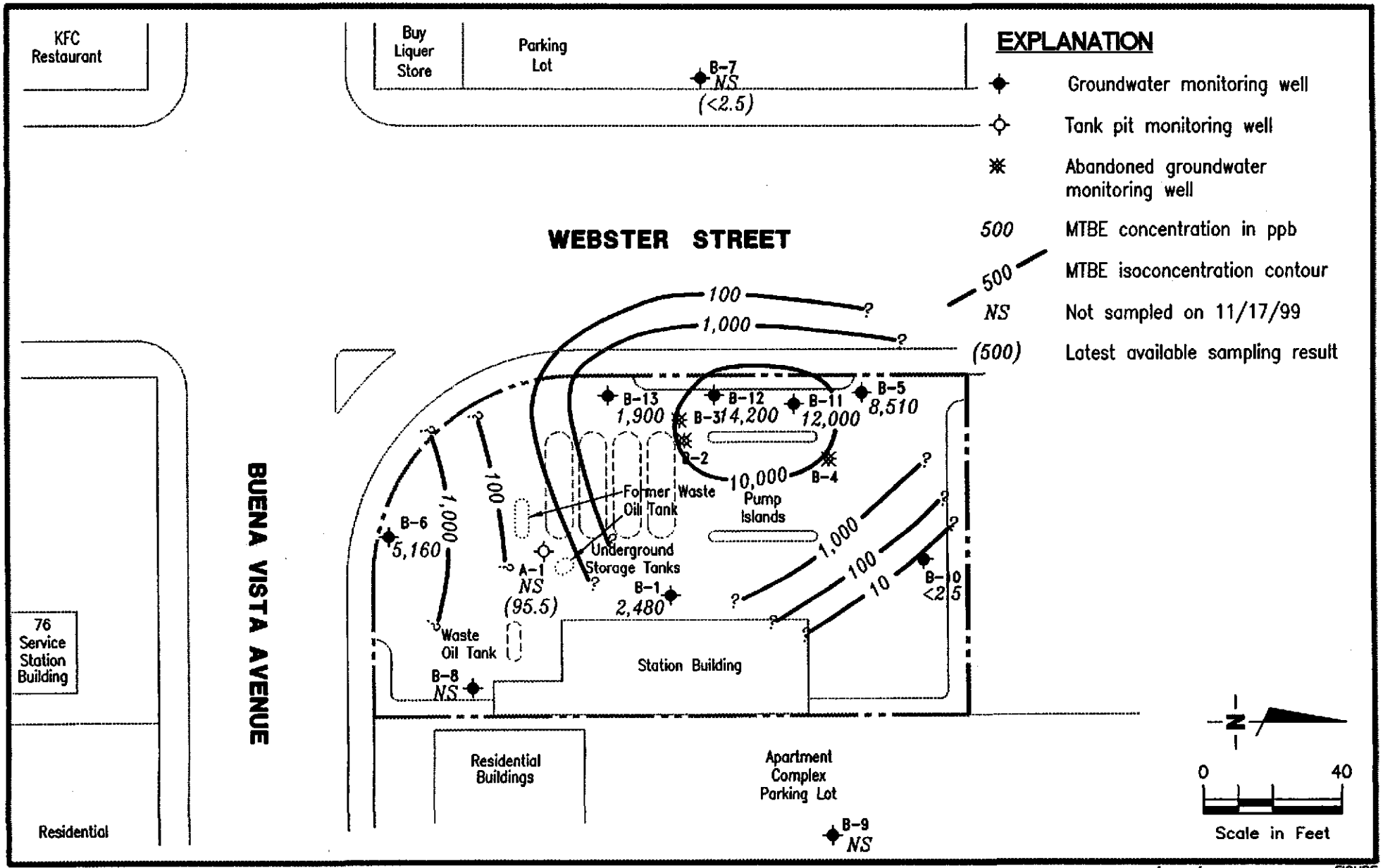

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MTBE CONCENTRATIONS IN GROUNDWATER ON 11/17/99
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FIGURE 7

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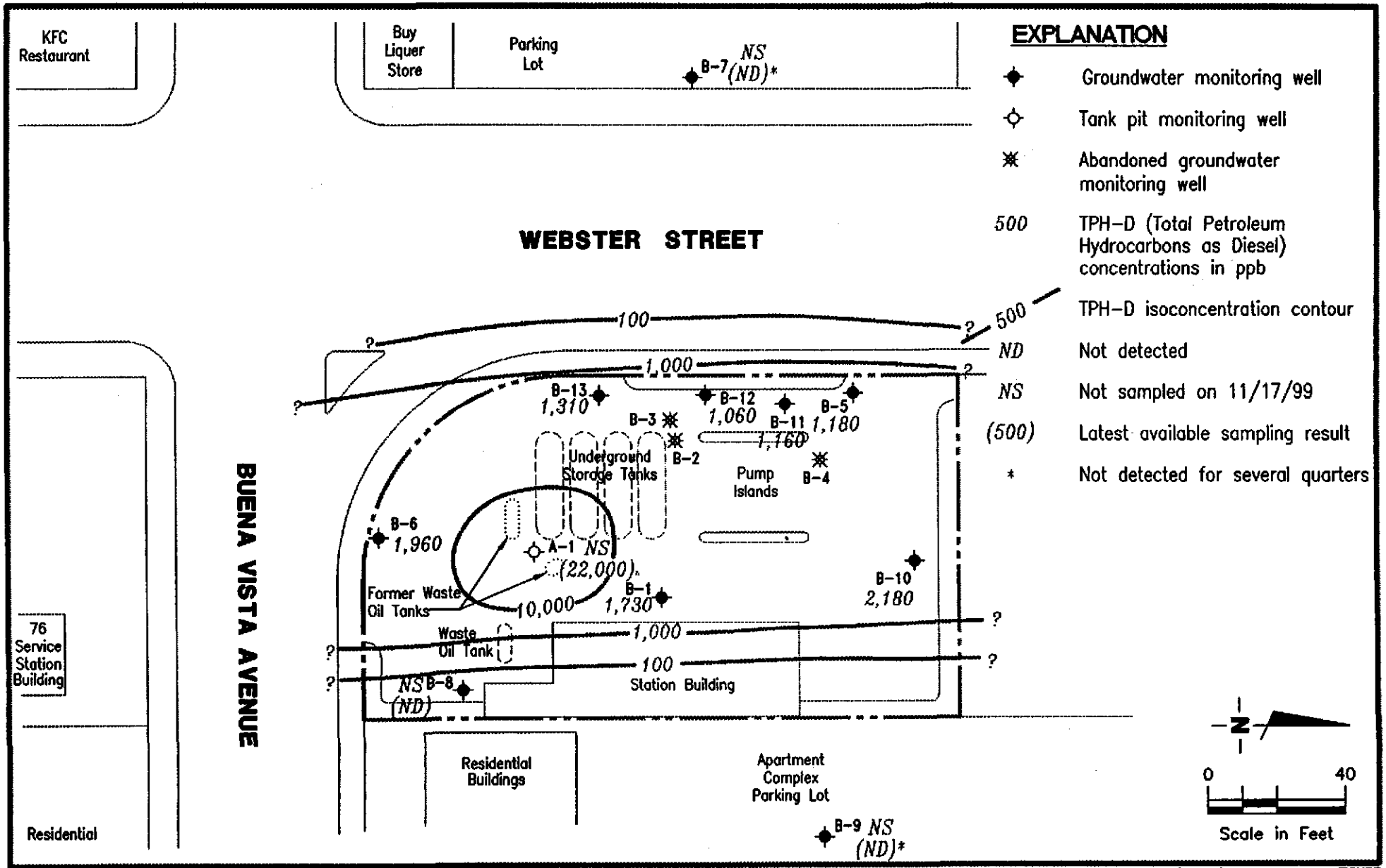

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TPH-D CONCENTRATIONS IN GROUNDWATER ON 11/17/99
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

FIGURE
8

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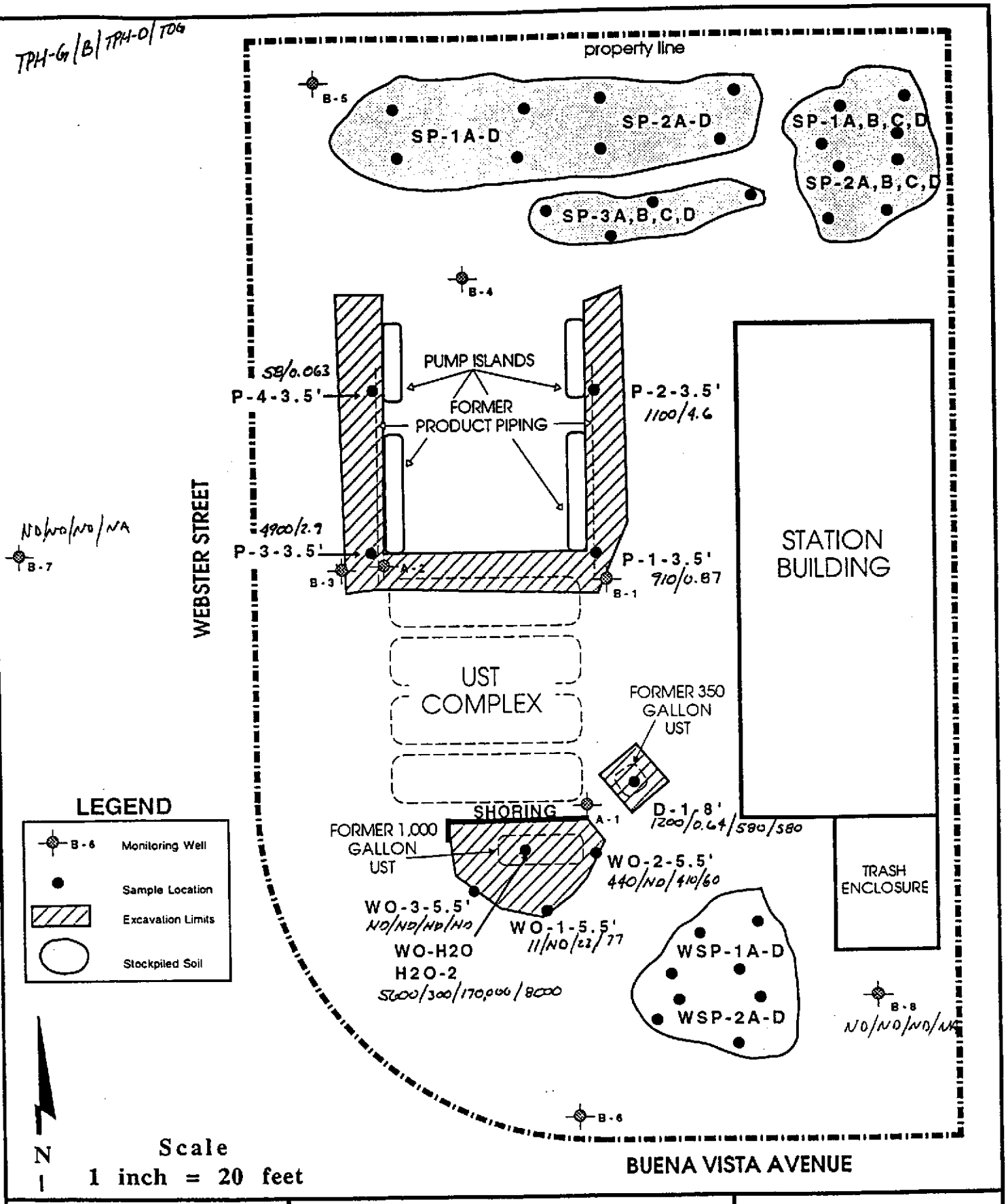
345280.02		03/00	

APPENDIX A

SOIL DATA



Touchstone Developments Environmental Management	Sampling Locations Chevron Service Station #9-0290 1802 Webster Street Alameda, California	Figure 2 6-16-94 | mjt Project Number 0290-1

TABLE A

UST & PRODUCT PIPING REMOVAL ANALYTICAL SUMMARY

Results in mg/Kg - parts per million (ppm)

1000 GALLON WASTE-OIL TANK REMOVAL SAMPLING RESULTS

SAMPLE ID	DEPTH (feet)	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel	TOG
WO-1-5.5'	5.5	6-Apr-94	Superior	11 xx	ND	0.013	0.041	0.14	22	77
WO-2-5.5'	5.5	6-Apr-94	Superior	440 xx	ND	0.026	0.69	3.5	410	60
WO-3-5.5'	5.5	6-Apr-94	Superior	ND	ND	ND	ND	ND	ND	ND
H2O-2 *	6	6-Apr-94	Superior	5600	300	430	140	280	170000 x	8000

1000 GALLON WASTE-OIL TANK REMOVAL SAMPLING RESULTS (additional analytical results)

SAMPLE ID	DEPTH (feet)	DATE	LAB	Cadmium	Chromium	Nickel	Lead	Zinc	8010 (ppb)	8270 (ppb)
WO-1-5.5'	5.5	6-Apr-94	Superior	ND	18	10	16	48	ND	ND
WO-2-5.5'	5.5	6-Apr-94	Superior	ND	21	ND	16	14	CAR 7&17 ppb	ND
WO-3-5.5'	5.5	6-Apr-94	Superior	ND	22	ND	20	17	ND	ND
H2O-2 **	6	6-Apr-94	Superior	0.03	1.8	2.2	2	14	CAR SOLVENTS	CAR NAPHTHALENE

UST PIPING SAMPLING RESULTS

SAMPLE ID	DEPTH (feet)	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel	TOG
P-1-3.5'	3.5	28-Apr-94	Superior	910	0.87	3.8	10	31	NA	NA
P-2-3.5'	3.5	28-Apr-94	Superior	1100	4.6	48	22	130	NA	NA
P-3-3.5'	3.5	28-Apr-94	Superior	4900	2.9	58	55	260	NA	NA
P-4-3.5'	3.5	28-Apr-94	Superior	58	0.063	0.4	0.59	0.91	NA	NA

TABLE A

UST & PRODUCT PIPING REMOVAL ANALYTICAL SUMMARY

Results in mg/Kg - parts per million (ppm)

350 GALLON UST REMOVAL SAMPLING RESULTS

SAMPLE ID	DEPTH (feet)	DATE	LAB	TPH-Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel	TOG
D-1-8'	8	18-May-94	Superior	1200	0.64	3.8	6.2	5.3	580 z	580

350 GALLON UST REMOVAL SAMPLING RESULTS (additional analytical results)

SAMPLE ID	DEPTH (feet)	DATE	LAB	Cadmium	Chromium	Nickel	Lead	Zinc	8270 (ppb)
D-1-8'	8	18-May-94	Superior	ND	35	27	ND	350	ND

' = Results in ug/L, parts per billion (ppb).

'' = Results in mg/L, parts per million (ppm).

x = Pattern not typical of diesel - mixture of light and heavy hydrocarbons present.

xx = Pattern not typical of gasoline - heavier hydrocarbons present.

z = Does not match typical diesel pattern - lighter hydrocarbons present.

ppb = parts per billion (ug/Kg)

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as Gasoline

TPH-Diesel = Total Petroleum hydrocarbons calculated as Diesel

ND = Not detected at or above laboratory detection limits.

NA = Analysis not requested.

TABLE 1
ANALYTICAL RESULTS OF SOIL SAMPLES
Collected on March 29 and 30, 1993
(Concentrations in parts per million)

Date	Sample ID	Sample Depth (feet)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-G	TPH-D
03/29/93	B-7	5	<0.005	<0.005	<0.005	<0.015	<1	<1
03/29/93	B-8	5	<0.005	<0.005	<0.005	<0.015	<1	<1
03/30/93	B-9	5	<0.005	<0.005	<0.005	<0.015	<1	<1

TPH-G = Total petroleum hydrocarbons-as-gasoline
TPH-D = Total petroleum hydrocarbons-as-diesel fuel

No Samples
B1-B6

2976R013

Table 1. Soil Analytical Results - Chevron Service Station #9-0290, 1802 Webster Street, Alameda, California

Sample ID	Depth (ft)	Date	Analytic Method	TPHg	B	T	E	X	TPHd	MTBE
				<--------			ppm			-------->
B10-6	6	10/31/95	8015/8020	69	0.75	<0.10	0.78	0.78	330	<0.50
B11-2	2	10/31/95	8015/8020	1,900	<2.5	<2.5	39	150	77	17
B11-5	5	10/31/95	8015/8020	210	<0.50	<0.50	2.1	6.4	28	<2.5
B12-6	6	10/31/95	8015/8020	520	<1.0	<1.0	2.9	6.6	69	8.2
B13-6	6	10/31/95	8015/8020	<1	<0.0050	<0.0050	<0.0050	<0.0050	1.1	<0.025
SP-(A-D)comp	---	10/31/95	8015/8020	55	<0.10	<0.10	0.61	1.9	---	---

EXPLANATION:

TPHg = Total Petroleum Hydrocarbons as gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
TPH(d) = Total Petroleum Hydrocarbons as diesel
MTBE = Methyl t-Butyl Ether
ppm = Parts per million
--- = Not analyzed/not applicable

ANALYTICAL METHODS:

8015 = EPA Method 8015Mod for TPHg and TPHd
8020 = EPA Method 8020 for BTEX and MTBE

ANALYTICAL LABORATORY:

Sequoia Analytical of Redwood City, California (ELAP #1210).

Sample Identification: B13-6
B = Soil sample from boring
13 = Boring number
6 = Sample depth

5280.01

APPENDIX B

GROUNDWATER DATA

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
A-1															
9/20/1991	8.13	0.48	9.23	1.58	--	--	--	--	--	--	--	--	--	--	--
10/9/1991	8.13	1.46	6.67	0.00	--	--	--	--	--	--	--	--	--	--	--
10/17/1991	8.13	1.43	7.28	0.58	--	--	--	--	--	--	--	--	--	--	--
10/23/1991	8.13	1.36	7.42	0.65	--	--	--	--	--	--	--	--	--	--	--
11/1/1991	8.13	1.49	7.14	0.50	--	--	--	--	--	--	--	--	--	--	--
11/7/1991	8.13	1.50	7.14	0.51	--	--	--	--	--	--	--	--	--	--	--
11/15/1991	8.13	1.47	7.19	0.53	--	--	--	--	--	--	--	--	--	--	--
11/21/1991	8.13	1.28	7.28	0.54	--	--	--	--	--	--	--	--	--	--	--
12/12/1991	8.13	1.29	7.33	0.49	--	--	--	--	--	--	--	--	--	--	--
12/30/1991	8.13	1.73	6.76	0.36	--	--	--	--	--	--	--	--	--	--	--
1/13/1992	8.13	2.21	6.29	0.37	--	--	--	--	--	--	--	--	--	--	--
1/22/1992	8.13	2.15	6.43	0.45	--	--	--	--	--	--	--	--	--	--	--
2/12/1992	8.13	2.21	6.30	0.38	--	--	--	--	--	--	--	--	--	--	--
3/9/1992	8.13	3.14	5.30	0.31	--	--	--	--	--	--	--	--	--	--	--
4/10/1992	8.13	2.83	5.37	0.07	--	--	--	--	--	--	--	--	--	--	--
5/18/1992	8.13	2.39	6.14	0.40	--	--	--	--	--	--	--	--	--	--	--
1/6/1993	8.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2/3/1993	8.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/23/1993	11.56	6.19	5.85	0.60	--	--	--	--	--	--	--	--	--	--	--
6/11/1993	11.56	--	--	--	2.000	2.000	--	--	--	--	--	--	--	--	--
6/15/1993	11.56	--	--	--	0.130	2.130	--	--	--	--	--	--	--	--	--
6/18/1993	11.56	--	--	--	0.130	2.260	--	--	--	--	--	--	--	--	--
6/22/1993	11.56	--	--	--	0.500	2.760	--	--	--	--	--	--	--	--	--
6/29/1993	11.56	--	--	--	--	2.760	--	--	--	--	--	--	--	--	--
7/9/1993	11.56	--	--	--	--	2.760	--	--	--	--	--	--	--	--	--
7/15/1993	11.56	--	--	--	--	2.760	--	--	--	--	--	--	--	--	--
7/19/1993	11.56	5.54	6.23	0.26	2.000	4.760	--	--	--	--	--	--	--	--	--
7/20/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
7/27/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
8/6/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
8/10/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
8/16/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
9/16/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
9/24/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--

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Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
A-1 (CONT'D)															
10/1/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
10/7/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
10/13/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
10/19/1993	11.56	--	--	0.10	--	4.760	--	--	--	--	--	--	--	--	--
10/20/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
10/28/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
11/12/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
11/19/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
11/30/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
12/10/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
12/16/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
12/23/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
12/29/1993	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
1/3/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
1/17/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
1/26/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
2/7/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
2/11/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
2/18/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
2/25/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
3/4/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
3/11/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
3/16/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
3/25/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
4/1/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
8/18/1994	11.56	--	--	--	--	4.760	--	--	--	--	--	--	--	--	--
11/30/1994	11.56	--	--	--	2.000	6.760	--	--	--	--	--	--	--	--	--
2/15/1995	11.56	--	4.79	--	--	6.760	--	--	--	--	--	--	--	--	--
5/1/1995	11.56	--	--	--	--	6.760	--	--	--	--	--	--	--	--	--
8/4/1995	11.56	--	--	--	--	6.760	--	--	--	--	--	--	--	--	--
11/29/1995	11.56	5.24	6.38	0.08	0.026	6.786	--	--	--	--	--	--	--	--	--
2/8/1996	11.56	7.03	4.57	0.05	--	6.790	--	--	--	--	--	--	--	--	--
5/8/1996	11.56	6.29	5.49	0.28	--	6.790	--	--	--	--	--	--	--	--	--
8/23/1996	11.56	5.31	6.43	0.22	--	6.790	--	--	--	--	--	--	--	--	--
12/12/1996	11.56	6.37	5.53	0.42	0.053	6.843	--	--	--	--	--	--	--	--	--

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Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
A-1 (CONT'D)															
2/10/1997	11.56	7.25	4.45	0.17	0.079	6.922	--	--	--	--	--	--	--	--	--
5/1/1997	11.56	6.11	5.51	0.08	0.053	6.975	--	--	--	--	--	--	--	--	--
8/5/1997	11.56	5.68	5.96	0.10	0.066	7.041	--	--	--	--	--	--	--	--	--
10/28/1997	11.56	5.56	6.05	0.06	0.026	7.067	--	--	--	--	--	--	--	--	--
2/4/1998	11.56	8.39	3.20	0.04	0.026	7.093	--	--	--	--	--	--	--	--	--
6/3/1998	11.56	7.02	4.56	0.03	0.021	7.114	--	--	--	--	--	--	--	--	--
7/29/1998	11.56	7.15	4.44	0.04	0.040	7.154	--	--	--	--	--	--	--	--	--
11/30/1998	11.56	6.23	5.61	0.35	0.012	7.166	--	--	--	--	--	--	--	--	--
2/24/1999	11.56	7.63	4.41	0.60	0.066	7.232	--	--	--	--	--	--	--	--	--
5/6/1999	11.56	6.89	4.67	--	--	7.232	--	580	13.4	<2.0	4.68	58	--	9500*	165
8/30/1999	11.56	5.52	6.04	--	--	7.232	**	615	12	3.45	3.8	44	--	22,000*	95.5
11/17/1999	11.56	5.70	5.89	0.04	0.08	7.312	--	--	--	--	--	--	--	--	--

* Chromatogram pattern indicates unidentified hydrocarbons.
** See Table of Additional Analyses.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
A-2															
9/20/1991	8.00	0.27	7.73	0.00	--	--	--	8100	860	14	110	53	--	5100	--
10/9/1991	8.00	1.39	6.61	0.00	--	--	--	--	--	--	--	--	--	--	--
10/17/1991	8.00	1.34	6.66	0.00	--	--	--	--	--	--	--	--	--	--	--
10/23/1991	8.00	1.29	6.80	0.09	--	--	--	--	--	--	--	--	--	--	--
11/1/1991	8.00	1.45	6.63	0.15	--	--	--	--	--	--	--	--	--	--	--
11/7/1991	8.00	1.45	6.64	0.21	--	--	--	--	--	--	--	--	--	--	--
11/15/1991	8.00	1.38	6.81	0.19	--	--	--	--	--	--	--	--	--	--	--
11/21/1991	8.00	1.31	6.93	0.24	--	--	--	--	--	--	--	--	--	--	--
12/12/1991	8.00	1.24	6.97	0.15	--	--	--	--	--	--	--	--	--	--	--
12/30/1991	8.00	1.70	6.54	0.24	--	--	--	--	--	--	--	--	--	--	--
1/13/1992	8.00	2.16	5.92	0.08	--	--	--	--	--	--	--	--	--	--	--
1/22/1992	8.00	2.00	6.01	0.10	--	--	--	--	--	--	--	--	--	--	--
2/12/1992	8.00	2.20	6.06	0.26	--	--	--	--	--	--	--	--	--	--	--
3/9/1992	8.00	3.11	4.93	0.04	--	--	--	--	--	--	--	--	--	--	--
4/10/1992	8.00	2.80	5.20	<0.01	--	--	--	--	--	--	--	--	--	--	--
5/18/1992	8.00	2.36	5.66	0.02	--	--	--	--	--	--	--	--	--	--	--
1/6/1993	8.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2/3/1993	8.00	3.20	4.98	0.22	--	--	--	--	--	--	--	--	--	--	--
4/23/1993	11.46	6.24	5.36	0.18	--	--	--	--	--	--	--	--	--	--	--
6/11/1993	11.46	--	--		0.13	1.000	--	--	--	--	--	--	--	--	--
6/15/1993	11.46	--	--		0.13	1.130	--	--	--	--	--	--	--	--	--
6/18/1993	11.46	--	--		0.26	1.390	--	--	--	--	--	--	--	--	--
6/22/1993	11.46	--	--		0.50	1.890	--	--	--	--	--	--	--	--	--
6/29/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
7/9/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
7/15/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
7/19/1993	11.46	5.53	6.79	1.07	--	1.890	--	--	--	--	--	--	--	--	--
7/20/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
7/27/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
8/6/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
8/10/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
8/16/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
9/16/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
9/24/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--

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Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
A-2 (CONT'D)															
10/1/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
10/7/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
10/13/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
10/19/1993	11.46	6.23	6.36	1.41	--	1.890	--	--	--	--	--	--	--	--	--
10/20/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
10/28/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
11/12/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
11/19/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
11/30/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
12/10/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
12/16/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
12/23/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
12/29/1993	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
1/3/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
1/17/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
1/26/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
2/7/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
2/11/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
2/18/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
2/25/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
3/4/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
3/11/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
3/16/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
3/25/1994	11.46	--	--		--	1.890	--	--	--	--	--	--	--	--	--
4/1/1994	11.46	--	--		--	1.890	Destroyed	--	--	--	--	--	--	--	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-1															
4/23/1993	12.12	6.19	5.93	--	--	--	--	13,000	4900	22	250	47	--	8300	--
7/19/1993	12.12	5.46	6.66	--	--	--	--	3300	1200	16	24	<30	--	1600	--
10/19/1993	12.12	5.04	7.08	--	--	--	--	2300	730	18	14	31	--	550	--
1/17/1994	12.12	5.39	6.73	--	--	--	--	22,000	6500	170	210	430	--	<50	--
8/18/1994	12.12	5.27	6.85	--	--	--	Inaccessible	--	--	--	--	--	--	--	--
11/30/1994	12.12	6.11	6.01	--	--	--	--	1500	250	17	7.5	19	<5.0*	3200**	--
2/15/1995	12.12	6.75	5.37	--	--	--	--	1000	160	<2.0	4.6	2.6	--	1300**	--
5/1/1995	12.12	7.00	5.12	--	--	--	--	140	20	0.52	2.0	0.67	--	2600***	--
8/4/1995	12.12	6.62	5.50	--	--	--	--	6700	1400	<20	<20	<20	--	4900***	--
11/29/1995	12.12	6.27	5.85	--	--	--	--	9200	2200	<25	<25	25	--	5000***	8300
2/8/1996	12.12	8.12	4.00	--	--	--	--	1500	190	<5.0	<5.0	<5.0	--	1300***	2300
5/8/1996	12.12	7.32	4.80	--	--	--	--	3700	650	<10	24	16	--	2900***	2300
8/23/1996	12.12	6.58	5.54	--	--	--	--	3200	500	<20	<20	<20	--	2600	4900
12/12/1996	12.12	7.22	4.90	--	--	--	--	2500	380	<25	<25	25	--	3400+	8600
2/10/1997	12.12	7.53	4.59	--	--	--	--	2200	270	11	8.8	13	--	2100***	3400
5/1/1997	12.12	6.46	5.66	--	--	--	--	1200	70	5.8	<5.0	7.2	--	1300***	2000
8/5/1997	12.12	5.68	6.44	--	--	--	--	<1000	86	<10	<10	<10	--	1500***	3800
10/28/1997	12.12	5.69	6.43	--	--	--	--	1400	73	6.5	6.8	9.0	--	2000***	2900
2/4/1998	12.12	9.11	3.01	--	--	--	--	1500	4.5	1.7	<0.5	2.2	--	1200***	1900
2/12/1998	12.12	8.33	3.79	--	--	--	--	--	--	--	--	--	--	--	--
6/3/1998	12.12	7.23	4.89	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	970***	1400
7/29/1998	12.12	6.37	5.75	--	--	--	++	850	27	<0.5	4.0	2.9	--	1100***	770
7/29/1998	12.12	6.37	5.75	--	--	--	Confirmation run	--	--	--	--	--	--	--	1200
11/30/1998	12.12	6.44	5.68	--	--	--	--	543	<5.0	<5.0	<5.0	<5.0	--	1490	2220
2/24/1999	12.12	7.83	4.29	--	--	--	--	390	1.6	0.57	2.8	2.5	--	1400***	2600
5/6/1999	12.12	7.11	5.01	--	--	--	--	239	4.02	<0.5	3.87	1.97	--	340***	197
8/30/1999	12.12	5.91	6.21	--	--	--	--	739	22.4	3.45	5.62	3.27	--	1570+++	1110
11/17/1999	12.12	5.98	6.14	--	--	--	--	907	66.4	3.82	4.39	4.75	--	1730	2480

* Analytical values are in parts per million (ppm).
** Chromagram pattern indicates a non-diesel mix.
*** Chromatogram pattern indicates an unidentified hydrocarbon.
\+ Chromatogram pattern indicates an unidentified hydrocarbon and weathered diesel.
++ See Table of Additional Analyses.
+++ Hydrocarbon pattern appears to be weathered.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-3															
9/20/1991	8.01	1.08	6.94	0.01	--	--	--	--	--	--	--	--	--	--	--
10/9/1991	8.01	1.66	6.35	--	--	--	--	--	--	--	--	--	--	--	--
10/17/1991	8.01	1.57	6.44	--	--	--	--	--	--	--	--	--	--	--	--
10/23/1991	8.01	1.53	6.84	--	--	--	--	--	--	--	--	--	--	--	--
11/1/1991	8.01	1.70	6.31	--	--	--	--	--	--	--	--	--	--	--	--
11/7/1991	8.01	1.69	6.32	--	--	--	--	--	--	--	--	--	--	--	--
11/15/1991	8.01	1.62	6.39	--	--	--	--	--	--	--	--	--	--	--	--
11/21/1991	8.01	1.57	6.44	--	--	--	--	--	--	--	--	--	--	--	--
12/12/1991	8.01	1.19	6.82	<0.01	--	--	--	--	--	--	--	--	--	--	--
12/30/1991	8.01	1.64	6.37	--	--	--	--	--	--	--	--	--	--	--	--
1/13/1992	8.01	2.07	5.94	--	--	--	--	--	--	--	--	--	--	--	--
1/22/1992	8.01	2.02	5.99	--	--	--	--	--	--	--	--	--	--	--	--
2/12/1992	8.01	2.19	5.82	<0.01	--	--	--	--	--	--	--	--	--	--	--
3/9/1992	8.01	2.91	5.10	--	--	--	--	--	--	--	--	--	--	--	--
4/10/1992	8.01	2.65	5.36	--	--	--	--	--	--	--	--	--	--	--	--
5/18/1992	8.01	2.29	5.72	--	--	--	--	6200	550	58	13	51	<5000	250	--
1/6/1993	8.01	2.51	5.50	--	--	--	Sheen	5400	490	54	51	82	--	10,000	--
2/3/1993	8.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/23/1993	11.42	6.10	5.32	--	--	--	--	18,000	540	69	47	120	--	6400	--
7/29/1993	11.42	5.48	5.94	--	--	--	--	40,000	780	69	49	150	--	4000	--
10/19/1993	11.42	5.10	6.32	--	--	--	--	20,000	520	37	43	100	--	1500	--
1/17/1994	11.42	4.47	6.95	--	--	--	Destroyed	3900	430	32	29	82	--	<50	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-4															
9/20/1991	8.04	1.22	6.82	0.01	--	--	--	19,000	710	160	650	2000	--	1400	--
10/9/1991	8.04	1.41	6.63	--	--	--	--	--	--	--	--	--	--	--	--
10/17/1991	8.04	1.20	6.84	--	--	--	--	--	--	--	--	--	--	--	--
10/23/1991	8.04	1.17	6.87	--	--	--	--	--	--	--	--	--	--	--	--
11/1/1991	8.04	1.34	6.70	--	--	--	--	--	--	--	--	--	--	--	--
11/7/1991	8.04	1.31	6.73	--	--	--	--	--	--	--	--	--	--	--	--
11/15/1991	8.04	1.21	6.83	--	--	--	--	--	--	--	--	--	--	--	--
11/21/1991	8.04	1.20	6.84	--	--	--	--	--	--	--	--	--	--	--	--
12/12/1991	8.04	1.17	6.87	<0.01	--	--	--	--	--	--	--	--	--	--	--
12/30/1991	8.04	1.58	6.46	--	--	--	--	--	--	--	--	--	--	--	--
1/13/1992	8.04	2.13	5.91	--	--	--	--	--	--	--	--	--	--	--	--
1/22/1992	8.04	2.09	5.95	--	--	--	--	--	--	--	--	--	--	--	--
2/12/1992	8.04	2.26	5.78	<0.01	--	--	--	15,000	920	75	520	940	--	860	--
3/9/1992	8.04	2.95	5.09	--	--	--	--	--	--	--	--	--	--	--	--
4/10/1992	8.04	2.65	5.39	--	--	--	--	--	--	--	--	--	--	--	--
5/18/1992	8.04	2.45	5.59	--	--	--	--	19,000	2000	97	560	1200	<5000	<50	--
1/6/1993	8.04	2.54	5.50	--	--	--	Sheen	19,000	2000	89	490	740	--	2700	--
2/3/1993	8.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/23/1993	11.46	6.07	5.39	--	--	--	--	5700	2400	75	380	580	--	2300	--
7/19/1993	11.46	5.33	6.13	--	--	--	--	19,000	2400	140	440	620	--	2400	--
10/19/1993	11.46	4.95	6.51	--	--	--	--	13,000	1200	84	290	530	--	2100	--
1/17/1994	11.46	5.28	6.18	--	--	--	Destroyed	11,000	1900	63	170	290	--	<50	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-5															
9/20/1991	7.73	2.20	5.53	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
10/9/1991	7.73	2.42	5.31	--	--	--	--	--	--	--	--	--	--	--	--
10/17/1991	7.73	2.09	5.64	--	--	--	--	--	--	--	--	--	--	--	--
10/23/1991	7.73	2.05	5.68	--	--	--	--	--	--	--	--	--	--	--	--
11/1/1991	7.73	2.24	5.49	--	--	--	--	--	--	--	--	--	--	--	--
11/7/1991	7.73	2.19	5.54	--	--	--	--	--	--	--	--	--	--	--	--
11/15/1991	7.73	2.10	5.63	--	--	--	--	--	--	--	--	--	--	--	--
11/21/1991	7.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/12/1991	7.73	2.05	5.68	--	--	--	--	--	--	--	--	--	--	--	--
12/30/1991	7.73	2.54	5.19	--	--	--	--	--	--	--	--	--	--	--	--
1/13/1992	7.73	3.07	4.65	--	--	--	--	--	--	--	--	--	--	--	--
1/22/1992	7.73	3.03	4.70	--	--	--	--	--	--	--	--	--	--	--	--
2/12/1992	7.73	3.38	4.45	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
3/9/1992	7.73	3.68	4.05	--	--	--	--	--	--	--	--	--	--	--	--
4/10/1992	7.73	3.30	4.43	--	--	--	--	--	--	--	--	--	--	--	--
5/18/1992	7.73	3.94	3.79	--	--	--	--	390	39	1.9	11	24	<5000	--	--
1/6/1993	7.73	3.39	4.44	--	--	--	Sheen	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
2/3/1993	7.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/23/1993	10.18	5.86	4.32	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
7/19/1993	10.18	5.15	5.03	--	--	--	--	54	<0.5	0.7	<0.5	<1.5	--	<50	--
10/19/1993	10.18	5.08	5.10	--	--	--	--	<50	2.0	4.1	0.6	3.5	--	<50	--
1/7/1994	10.18	5.32	4.86	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
8/18/1994	10.18	5.04	5.14	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/1994	10.18	5.73	4.45	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	140*	--
2/15/1995	10.18	6.03	4.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	170*	--
5/1/1995	10.18	5.75	4.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	190**	--
8/4/1995	10.18	5.22	4.96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	250**	--
11/29/1995	10.18	4.97	5.21	--	--	--	--	140	1.5	<0.5	1.1	<0.5	--	330**	800
2/8/1996	10.18	6.38	3.80	--	--	--	--	<200	2.1	<2.0	<2.0	<2.0	--	250**	1100
5/8/1996	10.18	5.78	4.40	--	--	--	--	<500	<5.0	<5.0	<5.0	<5.0	--	350**	1400
8/23/1996	10.18	5.19	4.99	--	--	--	--	250	6.4	2.1	2.1	4.3	--	990	9300
12/12/1996	10.18	5.90	4.28	--	--	--	--	<1000	<10	<10	<10	<10	--	430**	6700

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* Chromagram pattern indicates a non-diesel mix.
** Chromatogram pattern indicates an unidentified hydrocarbon.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-5 (CONT'D)															
2/10/1997	10.18	6.55	3.63	--	--	--	--	<500	<5.0	<5.0	<5.0	<5.0	--	340**	930
5/1/1997	10.18	5.87	4.31	--	--	--	--	<500	<5.0	<5.0	<5.0	<5.0	--	290**	1900
8/5/1997	10.18	5.29	4.89	--	--	--	--	<1000	<10	<10	<10	<10	--	710**	6800
10/28/1997	10.18	5.18	5.00	--	--	--	--	<500	<5.0	<5.0	<5.0	<5.0	--	880**	7000
2/4/1998	10.18	7.65	2.53	--	--	--	--	<50	0.51	<0.5	<0.5	<0.5	--	290**	2100
6/3/1998	10.18	6.33	3.85	--	--	--	--	220	2.0	15	2.8	20	--	630**	450
7/29/1998	10.18	5.63	4.55	--	--	--	*	<50	1.6	<0.5	<0.5	1.6	--	1100**	4600
7/29/1998	10.18	5.63	4.55	--	--	--	Confirmation run	--	--	--	--	--	--	--	6200
11/30/1998	10.18	5.81	4.37	--	--	--	--	<50	<0.5	1.91	<0.5	1.09	--	371	202
2/24/1999	10.18	6.79	3.39	--	--	--	--	<50	<0.5	<0.5	0.69	3.1	--	512**	25
5/6/1999	10.18	6.16	4.02	--	--	--	--	<50	2.27	<0.5	<0.5	<0.5	--	790**	3090
8/30/1999	10.18	5.02	5.16	--	--	--	--	<250	4.25	<2.5	<2.5	<2.5	--	1890***	10,400
11/17/1999	10.18	5.28	4.90	--	--	--	--	101	4.95	<0.5	<0.5	<0.5	--	1180**	8510

* See Table of Additional Analyses.
** Chromatogram pattern indicates an unidentified hydrocarbon.
*** Hydrocarbon pattern in sample appears to be weathered.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-6															
9/20/1991	8.55	1.70	6.85	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
10/9/1991	8.55	1.72	6.83	--	--	--	--	--	--	--	--	--	--	--	--
10/17/1991	8.55	1.65	6.90	--	--	--	--	--	--	--	--	--	--	--	--
10/23/1991	8.55	1.62	6.93	--	--	--	--	--	--	--	--	--	--	--	--
11/1/1991	8.55	1.77	6.78	--	--	--	--	--	--	--	--	--	--	--	--
11/7/1991	8.55	1.74	6.81	--	--	--	--	--	--	--	--	--	--	--	--
11/15/1991	8.55	1.67	6.88	--	--	--	--	--	--	--	--	--	--	--	--
11/21/1991	8.55	1.60	6.95	--	--	--	--	--	--	--	--	--	--	--	--
12/12/1991	8.55	1.41	7.14	--	--	--	--	--	--	--	--	--	--	--	--
12/30/1991	8.55	2.05	6.50	--	--	--	--	--	--	--	--	--	--	--	--
1/13/1992	8.55	2.36	6.19	--	--	--	--	--	--	--	--	--	--	--	--
1/22/1992	8.55	2.28	6.27	--	--	--	--	--	--	--	--	--	--	--	--
2/12/1992	8.55	2.43	6.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
3/9/1992	8.55	3.27	5.28	--	--	--	--	--	--	--	--	--	--	--	--
4/10/1992	8.55	3.07	5.48	--	--	--	--	--	--	--	--	--	--	--	--
5/18/1992	8.55	2.65	5.90	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5000	<50	--
1/6/1993	8.55	2.76	5.79	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
2/3/1993	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4/23/1993	11.97	6.70	5.27	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	<50	--
7/19/1993	11.97	5.06	6.91	--	--	--	--	74	<0.5	<0.5	<0.5	<1.5	--	<50	--
10/19/1993	11.97	5.49	6.48	--	--	--	--	<50	<0.5	0.5	<0.5	2.2	--	<50	--
1/7/1994	11.97	5.79	6.18	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
8/18/1994	11.97	5.77	6.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/1994	11.97	6.52	5.45	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	230*	--
2/15/1995	11.97	7.27	4.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	130*	--
5/1/1995	11.97	6.94	5.03	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	97**	--
8/4/1995	11.97	6.15	5.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	350**	--
11/29/1995	11.97	5.97	6.00	--	--	--	--	--	--	--	--	--	--	200**	--
2/8/1996	11.97	7.27	4.70	--	--	--	--	--	--	--	--	--	--	210**	--
5/8/1996	11.97	6.74	5.23	--	--	--	--	--	--	--	--	--	--	250**	--
8/23/1996	11.97	5.92	6.05	--	--	--	--	--	--	--	--	--	--	310**	--
12/12/1996	11.97	6.65	5.32	--	--	--	--	--	--	--	--	--	--	300**	--

CONTINUED ON NEXT PAGE

* Chromatogram pattern indicates a non-diesel mix.
** Chromatogram pattern indicates an unidentified hydrocarbon.

Cumulative Table of Well Data and Analytical Results

'ertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

)ATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
3-6 (CONT'D)															
'/10/1997	11.97	7.60	4.37	--	--	--	--	--	--	--	--	--	--	130**	360
;/1/1997	11.97	6.74	5.23	--	--	--	--	--	--	--	--	--	--	260**	2200
3/5/1997	11.97	6.22	5.75	--	--	--	--	--	--	--	--	--	--	260**	1800
.0/28/1997	11.97	5.89	6.08	--	--	--	--	--	--	--	--	--	--	340**	1900
'/4/1998	11.97	9.26	2.71	--	--	--	--	--	--	--	--	--	--	280**	1400
;/3/1998	11.97	7.49	4.48	--	--	--	--	--	--	--	--	--	--	130**	1200
'/29/1998	11.97	6.69	5.28	--	--	--	--	--	--	--	--	--	--	340**	2700
'/29/1998	11.97	6.69	5.28	--	--	--	Confirmation run	--	--	--	--	--	--	--	3000
11/30/1998	11.97	6.48	5.49	--	--	--	--	655	<5.0*	<5.0	<5.0	<5.0	--	2740	2160
'/24/1999	11.97	7.79	4.18	--	--	--	--	--	--	--	--	--	--	225**	1500
;/6/1999	11.97	6.29	5.68	--	--	--	--	--	--	--	--	--	--	71**	1010
3/30/1999	11.97	6.06	5.91	--	--	--	--	--	--	--	--	--	--	356**	4520
11/17/1999	11.97	6.01	5.96	--	--	--	--	--	--	--	--	--	--	1960**	5160

** Chromatogram pattern indicates an unidentified hydrocarbon.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-7															
4/23/1993	10.54	6.02	4.52	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--	--
7/19/1993	10.54	5.50	5.04	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<50	<50	--
10/19/1993	10.54	5.14	5.40	--	--	--	--	<50	3.1	0.5	<0.5	0.8	--	<50	--
1/7/1994	10.54	5.35	5.19	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
8/18/1994	10.54	5.28	5.26	--	--	--	--	<50	<0.5	<0.5	<0.5	1.1	--	<50	--
11/30/1994	10.54	5.96	4.58	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
2/15/1995	10.54	6.32	4.22	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
5/1/1995	10.54	6.04	4.50	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	53**	--
8/4/1995	10.54	5.56	4.98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
2/12/1998	10.54	7.49	3.05	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
6/3/1998	10.54	6.59	3.95	--	--	--	Sampled biannuall	--	--	--	--	--	--	--	--
7/29/1998	10.54	5.99	4.55	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
11/30/1998	10.54	5.56	4.98	--	--	--	--	--	--	--	--	--	--	--	--
2/24/1999	10.54	7.24	3.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
5/6/1999	10.54	4.79	5.75	--	--	--	--	--	--	--	--	--	--	--	--
8/30/1999	10.54	5.25	5.29	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
11/17/1999	10.54	4.81	5.73	--	--	--	--	--	--	--	--	--	--	--	--
B-8															
4/23/1993	11.99	6.63	5.36	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--	--
7/19/1993	11.99	5.77	6.22	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<50	<50	--
10/19/1993	11.99	--	--	--	--	--	Dry	--	--	--	--	--	--	--	--
1/7/1994	11.99	5.69	6.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
8/18/1994	11.99	5.56	6.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/1994	11.99	6.53	5.46	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	120*	--
2/15/1995	11.99	7.27	4.72	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	120*	--
5/1/1995	11.99	6.99	5.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	51**	--
8/4/1995	11.99	6.07	5.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/1998	11.99	6.45	5.54	--	--	--	--	--	--	--	--	--	--	--	--

NO LONGER MONITORED OR SAMPLED

* Chromatogram pattern indicates a non-diesel mix.
** Chromatogram pattern indicates an unidentified hydrocarbon.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-9															
4/23/1993	10.70	6.14	4.56	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<50	--	--
7/19/1993	10.70	5.25	5.45	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<50	<50	--
10/19/1993	10.70	4.81	5.89	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
1/7/1994	10.70	5.29	5.41	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
8/18/1994	10.70	5.15	5.55	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
11/30/1994	10.70	6.35	4.35	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	60*	--
2/15/1995	10.70	7.05	3.65	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
5/1/1995	10.70	6.41	4.29	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
8/4/1995	10.70	5.50	5.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<50	--
NO LONGER MONITORED OR SAMPLED															
B-10															
11/29/1995	11.42	4.91	6.51	--	--	--	--	1700	95	<2.5	69	170	--	900*	22
2/8/1996	11.42	6.87	4.55	--	--	--	--	230	31	<0.5	7.2	6.2	--	650*	10
5/8/1996	11.42	5.87	5.55	--	--	--	--	260	61	0.59	37	23	--	570*	20
8/23/1996	11.42	5.23	6.19	--	--	--	--	320	34	<0.5	29	15	--	700*	8.3
12/12/1996	11.42	5.59	5.83	--	--	--	--	1600	94	<2.5	110	27	--	990*	<12
2/10/1997	11.42	6.84	4.58	--	--	--	--	2100	230	5.6	130	83	--	530*	<12
5/1/1997	11.42	5.85	5.57	--	--	--	--	2300	110	<2.5	140	49	--	770*	<12
8/5/1997	11.42	5.12	6.30	--	--	--	--	650	33	1.1	70	16	--	620*	3.2
10/28/1997	11.42	5.24	6.18	--	--	--	--	740	25	1.6	53	14	--	310*	6.7
2/4/1998	11.42	8.53	2.89	--	--	--	--	950	23	4.5	<0.5	1.9	--	250*	<2.5
6/3/1998	11.42	6.62	4.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	490*	<2.5
7/29/1998	11.42	5.77	5.65	--	--	--	**	290	3.9	<0.5	8.5	1.4	--	390*	<2.5
11/30/1998	11.42	5.80	5.62	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	437	7.11
2/24/1999	11.42	7.19	4.23	--	--	--	--	160	35	0.55	0.64	0.64	--	259*	9.2
5/6/1999	11.42	6.31	5.11	--	--	--	--	490	7.05	1.02	8.24	2.18	--	190*	<5.0
8/30/1999	11.42	5.06	6.36	--	--	--	--	205	1.79	0.808	5.55	2.16	--	330*	3.93
11/17/1999	11.42	5.48	5.94	--	--	--	--	108	1.2	<0.5	1.2	<0.5	--	2180*	<2.5

* Chromatogram pattern indicates an unidentified hydrocarbon.
** See Table of Additional Analyses.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-11															
11/29/1995	11.98	6.08	5.90	--	--	--	--	2800	38	<10	26	48	--	1400*	21,000
2/8/1996	11.98	7.54	4.44	--	--	--	--	<5000	<50	<50	<50	<50	--	1100*	38,000
5/8/1996	11.98	6.98	5.00	--	--	--	--	4100	110	<10	31	25	--	1300*	17,000
8/23/1996	11.98	6.37	5.61	--	--	--	--	3400	160	12	41	13	--	820*	4000
12/12/1996	11.98	6.85	5.13	--	--	--	--	3700	120	12	<5.0	30	--	1300*	2200
2/10/1997	11.98	7.91	4.07	--	--	--	--	2300	56	17	<5.0	20	--	810*	4700
5/1/1997	11.98	6.95	5.03	--	--	--	--	<5000	<50	<50	<50	<50	--	820*	21,000
8/5/1997	11.98	6.38	5.60	--	--	--	--	3500	42	<10	<10	<10	--	900*	4100
10/28/1997	11.98	6.30	5.68	--	--	--	--	3000	39	6.2	8.0	13	--	1300*	2300
2/4/1998	11.98	9.39	2.59	--	--	--	--	1300	3.2	1.4	<0.5	5.0	--	930*	46,000
6/3/1998	11.98	7.53	4.45	--	--	--	--	860	3.7	1.4	0.84	3.0	--	740*	34,000
7/29/1998	11.98	6.80	5.18	--	--	--	**	1300	6.9	2.5	3.8	2.0	--	1400*	50,000
7/29/1998	11.98	6.80	5.18	--	--	--	Confirmation run	--	--	--	--	--	--	--	41,000
11/30/1998	11.98	6.91	5.07	--	--	--	--	<1000	<10	<10	<10	<10	--	1020	5370
2/24/1999	11.98	7.79	4.19	--	--	--	--	690	4.7	<0.5	2.7	3.1	--	2290*	67,000
5/6/1999	11.98	7.43	4.55	--	--	--	--	423	4.66	0.662	<0.5	1.38	--	580*	20,600
8/30/1999	11.98	6.18	5.80	--	--	--	--	1220	31	8.6	<5.0	14	--	1120*	10,900
11/17/1999	11.98	6.41	5.57	--	--	--	--	2800	36.6	10.6	8.41	11.6	--	1160*	12,000

* Chromatogram pattern indicates an unidentified hydrocarbon.
** See Table of Additional Analyses.

Cumulative Table of Well Data and Analytical Results

/ertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-12															
11/29/1995	11.16	5.15	6.01	--	--	--	--	1100	10	<10	<10	<10	--	1800*	37,000
2/8/1996	11.16	6.56	4.60	--	--	--	--	<20,000	<200	<200	<200	<200	--	1800*	88,000
5/8/1996	11.16	6.08	5.08	--	--	--	--	<25,000	<250	<250	<250	<250	--	1800*	88,000
8/23/1996	11.16	5.51	5.65	--	--	--	--	630	16	<5.0	<5.0	<5.0	--	1500*	420
12/12/1996	11.16	6.05	5.11	--	--	--	--	<25,000	<250	<250	<250	<250	--	1200*	54,000
2/10/1997	11.16	7.05	4.11	--	--	--	--	<20,000	<200	<200	<200	<200	--	1200*	65,000
2/10/1997	11.16	7.05	4.11	--	--	--	EPA 8240	--	<500	<500	<500	<500	--	--	--
5/1/1997	11.16	6.17	4.99	--	--	--	--	<12,500	<125	<125	<125	<125	--	1100*	64,000
8/5/1997	11.16	5.55	5.61	--	--	--	--	<10,000	<100	<100	<100	<100	--	1100*	46,000
10/28/1997	11.16	5.40	5.76	--	--	--	--	1400	39	<5.0	7.2	6.0	--	1100*	29,000
2/4/1998	11.16	8.53	2.63	--	--	--	--	920	6.9	1.1	<0.5	2.8	--	4800*	59,000
6/3/1998	11.16	6.71	4.45	--	--	--	--	590	9.4	<0.5	0.93	<0.5	--	2000*	15,000
7/29/1998	11.16	5.91	5.25	--	--	--	**	820	5.6	2.0	3.3	1.2	--	2200*	28,000
7/29/1998	11.16	5.91	5.25	--	--	--	Confirmation run	--	--	--	--	--	--	--	33,000
11/30/1998	11.16	6.03	5.13	--	--	--	--	2110	<10	<10	<10	<10	--	1060	5330
2/24/1999	11.16	7.16	4.00	--	--	--	--	410	0.64	<0.5	2.2	2.3	--	2680*	15,000
5/6/1999	11.16	6.71	4.45	--	--	--	**	<500	<5.0	<5.0	<5.0	<5.0	<1000	3550*	1370
8/30/1999	11.16	5.32	5.84	--	--	--	--	985	12.5	6.0	9.5	10.8	--	1310*	6600
11/17/1999	11.16	5.73	5.43	--	--	--	--	1700	14.4	5.99	5.98	<5.0	--	1060*	14,200

* Chromatogram pattern indicates an unidentified hydrocarbon.
** See Table of Additional Analyses.

Cumulative Table of Well Data and Analytical Results

/ertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
B-13															
11/29/1995	11.17	5.26	5.91	--	--	--	--	1800	19	<5.0	5.5	<5.0	--	3400*	7400
2/8/1996	11.17	6.72	4.45	--	--	--	--	910	12	1.3	2.0	1.9	--	450*	77
5/8/1996	11.17	6.20	4.97	--	--	--	--	140	1.9	<0.5	0.88	2.0	--	560*	98
8/23/1996	11.17	5.54	5.63	--	--	--	--	1300	<10	<10	<10	<10	--	1300*	450
12/12/1996	11.17	5.91	5.26	--	--	--	--	2600	29	5.4	9.40	6.3	--	1300*	230
2/10/1997	11.17	7.05	4.12	--	--	--	--	670	<0.5	6.7	2.6	5.6	--	290*	28
5/1/1997	11.17	6.17	5.00	--	--	--	--	920	8.5	4.6	2.1	6.1	--	480*	530
8/5/1997	11.17	5.52	5.65	--	--	--	--	1900	23	<5.0	<5.0	<5.0	--	1300*	860
10/28/1997	11.17	5.49	5.68	--	--	--	--	2400	33	14	8.4	10	--	2200*	2100
2/4/1998	11.17	8.48	2.69	--	--	--	--	110	<0.5	<0.5	<0.5	<0.5	--	260*	260
5/3/1998	11.17	6.79	4.38	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	480*	400
7/29/1998	11.17	6.12	5.05	--	--	--	**	350	5.0	<0.5	0.67	1.2	--	830*	730
7/29/1998	11.17	6.12	5.05	--	--	--	Confirmation run	--	--	--	--	--	--	--	980
11/30/1998	11.17	6.16	5.01	--	--	--	--	168	0.797	<0.5	<0.5	<0.5	--	741	114
2/24/1999	11.17	7.14	4.03	--	--	--	--	69	<0.5	<0.5	<0.5	<0.5	--	670*	530
5/6/1999	11.17	6.72	4.45	--	--	--	--	<500	<5.0	<5.0	<5.0	<5.0	--	540*	454
8/30/1999	11.17	5.43	5.74	--	--	--	--	748	13.7	<2.5	4.53	10.6	--	927*	377
11/17/1999	11.17	5.58	5.59	--	--	--	--	1240	24.6	8.96	<5.0	20.2	--	1310*	1900

* Chromatogram pattern indicates an unidentified hydrocarbon.
** See Table of Additional Analyses.

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	TOG	TPH-Diesel	MTBE
TRIP BLANK															
1/6/1993	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
4/23/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7/19/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/19/1993	--	--	--	--	--	--	--	<50	<0.5	0.5	<0.5	<0.5	--	--	--
1/17/1994	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/18/1994	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/30/1994	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
2/15/1995	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/1/1995	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
8/4/1995	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
11/29/1995	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
2/8/1996	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
5/8/1996	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
8/23/1996	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	--
12/12/1996	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
2/10/1997	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
5/1/1997	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
8/5/1997	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
10/28/1997	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
2/4/1998	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
2/12/1998	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
6/3/1998	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
7/29/1998	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.0
11/30/1998	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
2/24/1999	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<5.0
5/6/1999	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
8/30/1999	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	<2.5
11/17/1999	--	--	--	--	--	--	--								

Cumulative Table of Well Data and Analytical Results

ADDITIONAL ANALYSES

Analytical values are in parts per billion (ppb)

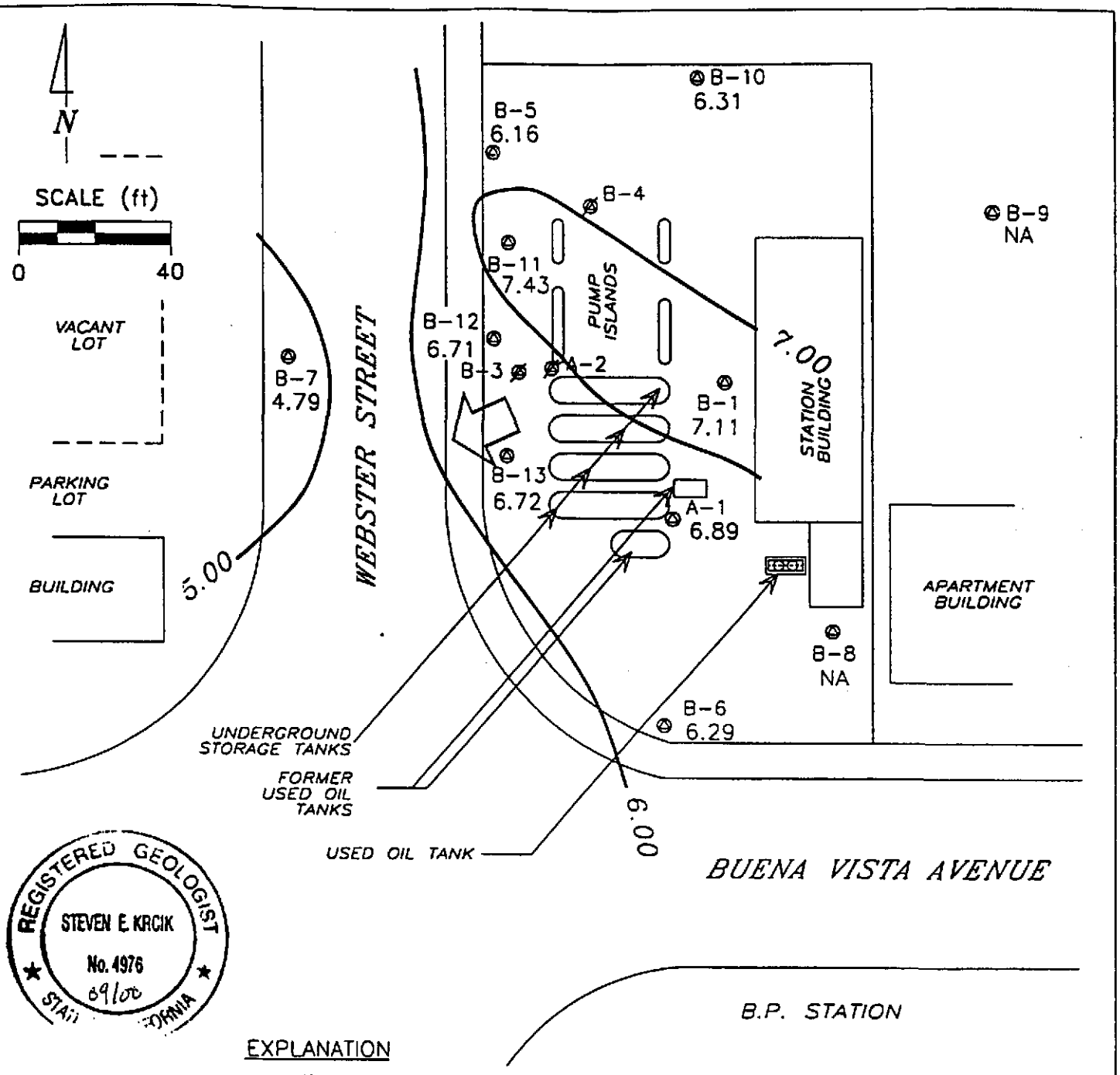
DATE	Notes	Alkalinity	Ferrous Iron	Nitrate as Nitrate	Sulfate	EPA 8010B	EPA 8270B	Cadmium	Chromium	Lead	Nickel	Zinc	Motor Oil
A-1													
8/30/1999	--	--	--	--	--	--	--	--	--	--	--	--	68,400
B-1													
7/29/1998	--	930,000	2000	13,000	280,000	--	--	--	--	--	--	--	
B-5													
7/29/1998	--	280,000	1100	<1000	7000	--	--	--	--	--	--	--	
B-10													
7/29/1998	--	630,000	740	34,000	16,000	--	--	--	--	--	--	--	
B-11													
7/29/1998	--	460,000	1100	33,000	18,000	--	--	--	--	--	--	--	
B-12													
7/29/1998	--	700,000	450	<1000	27,000	--	--	--	--	--	--	--	
5/6/1999	--	--	--	--	--	<5.0-<10	<10-<50	<10	86.7	<75	143	185	
B-13													
7/29/1998	--	290,000	240	5600	17,000	--	--	--	--	--	--	--	

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.
Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

ABBREVIATIONS:
TPH = Total Petroleum Hydrocarbons
SPH = Separate-Phase Hydrocarbons
TOG = Total Oil and Grease
MTBE = Methyl t-Butyl Ether

APPENDIX C

POTENTIOMETRIC MAPS



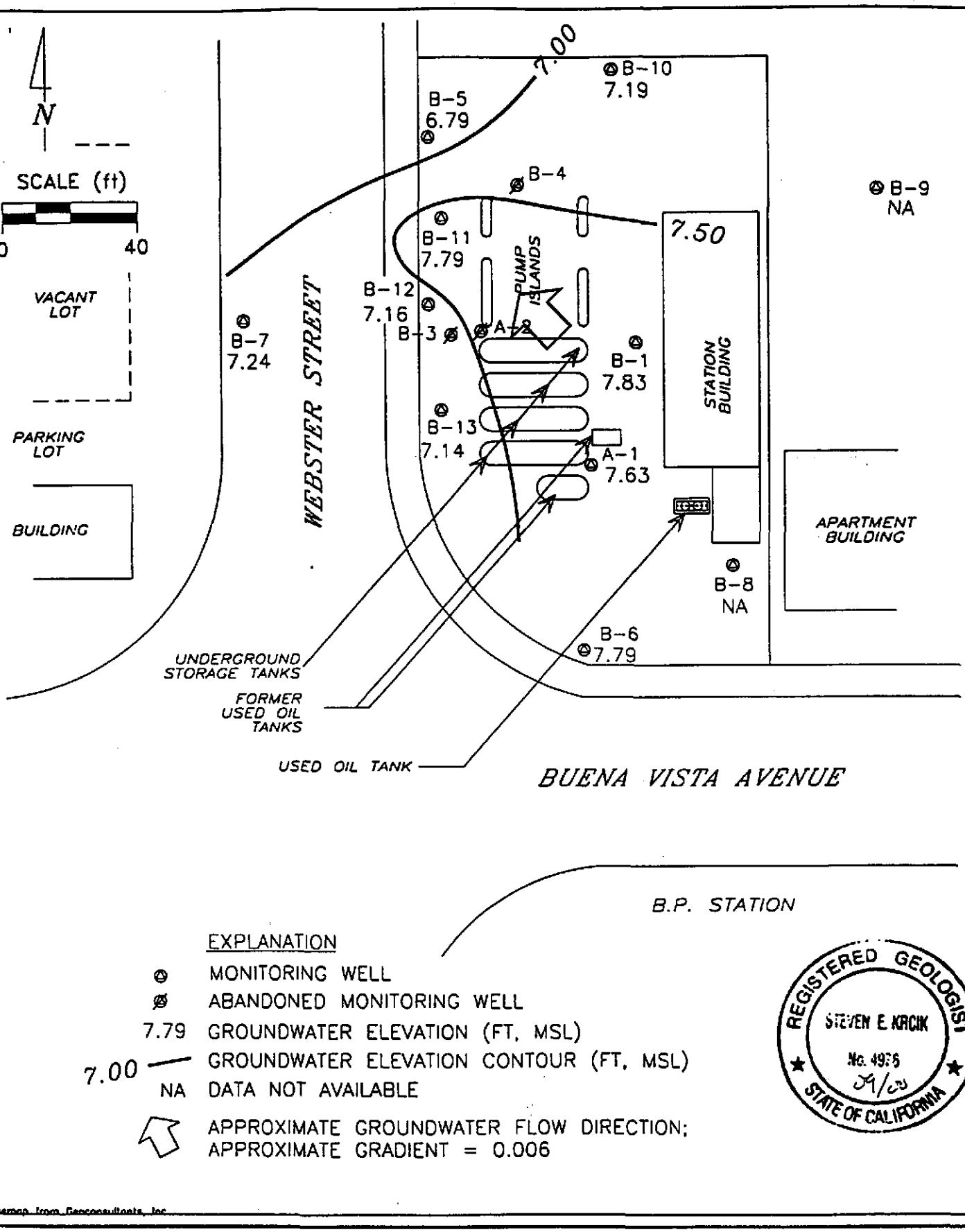
REGISTERED GEOLOGIST
STEVEN E. KRCIK
No. 4976
6/30
STATE OF CALIFORNIA

EXPLANATION

- ⊙ MONITORING WELL
- ⊘ ABANDONED MONITORING WELL
- 6.29 GROUNDWATER ELEVATION (FT. MSL)
- 6.00 — GROUNDWATER ELEVATION CONTOUR (FT. MSL)
- NA DATA NOT AVAILABLE
- ⇦ APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.02

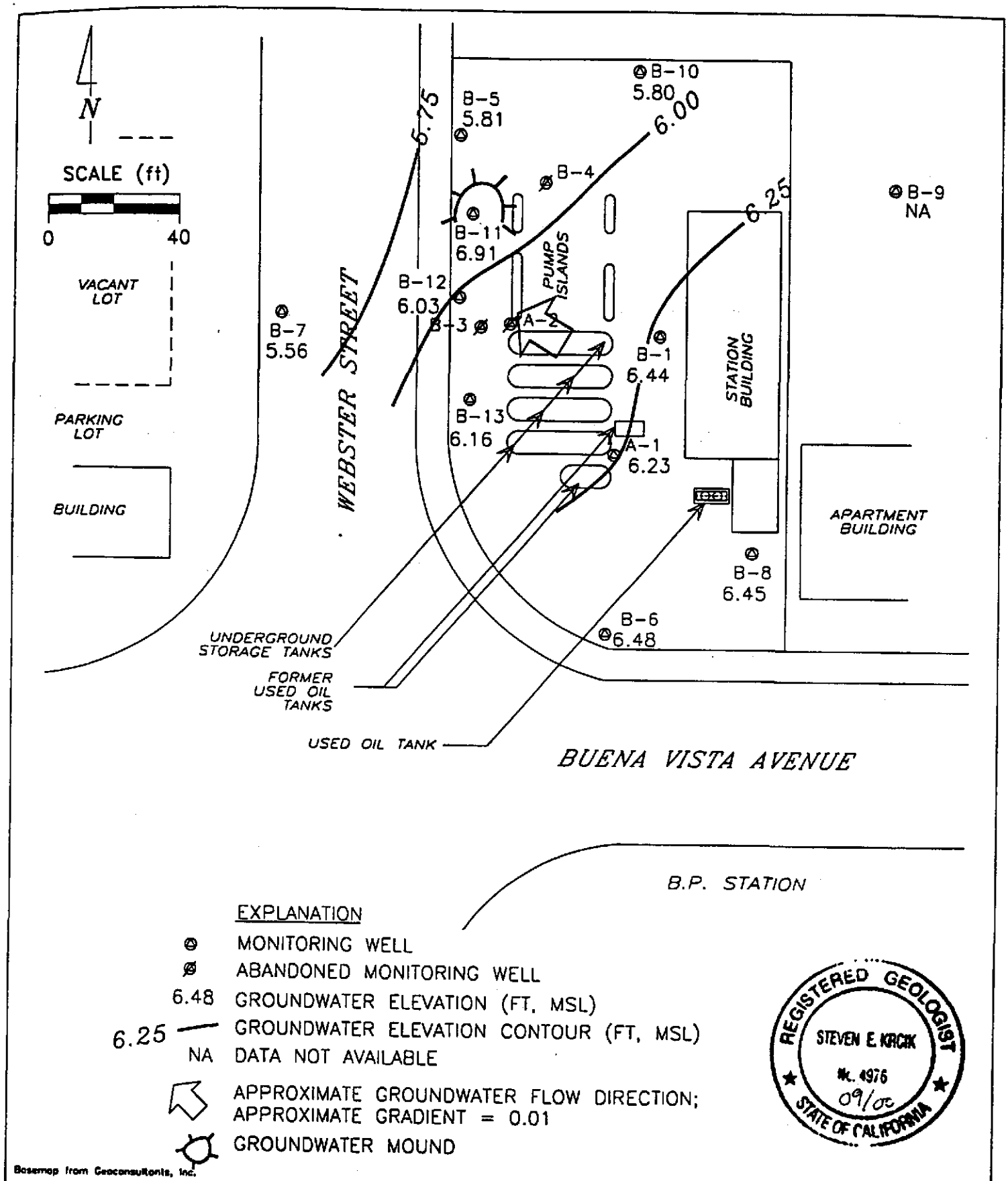
Basemap from Geoconsultants, Inc.

PREPARED BY RRM engineering contracting firm	**Chevron Station 9-0290** 1802 Webster Street Alameda, California **GROUNDWATER ELEVATION CONTOUR MAP, MAY 6, 1999**	FIGURE: **1** PROJECT: DAC04



Basemap from Geoconsultants, Inc.

PREPARED BY RRM engineering contracting firm	**Chevron Station 9-0290** 1802 Webster Street Alameda, California **GROUNDWATER ELEVATION CONTOUR MAP, FEBRUARY 24, 1999**	FIGURE: **1** PROJECT: DAC04



PREPARED BY

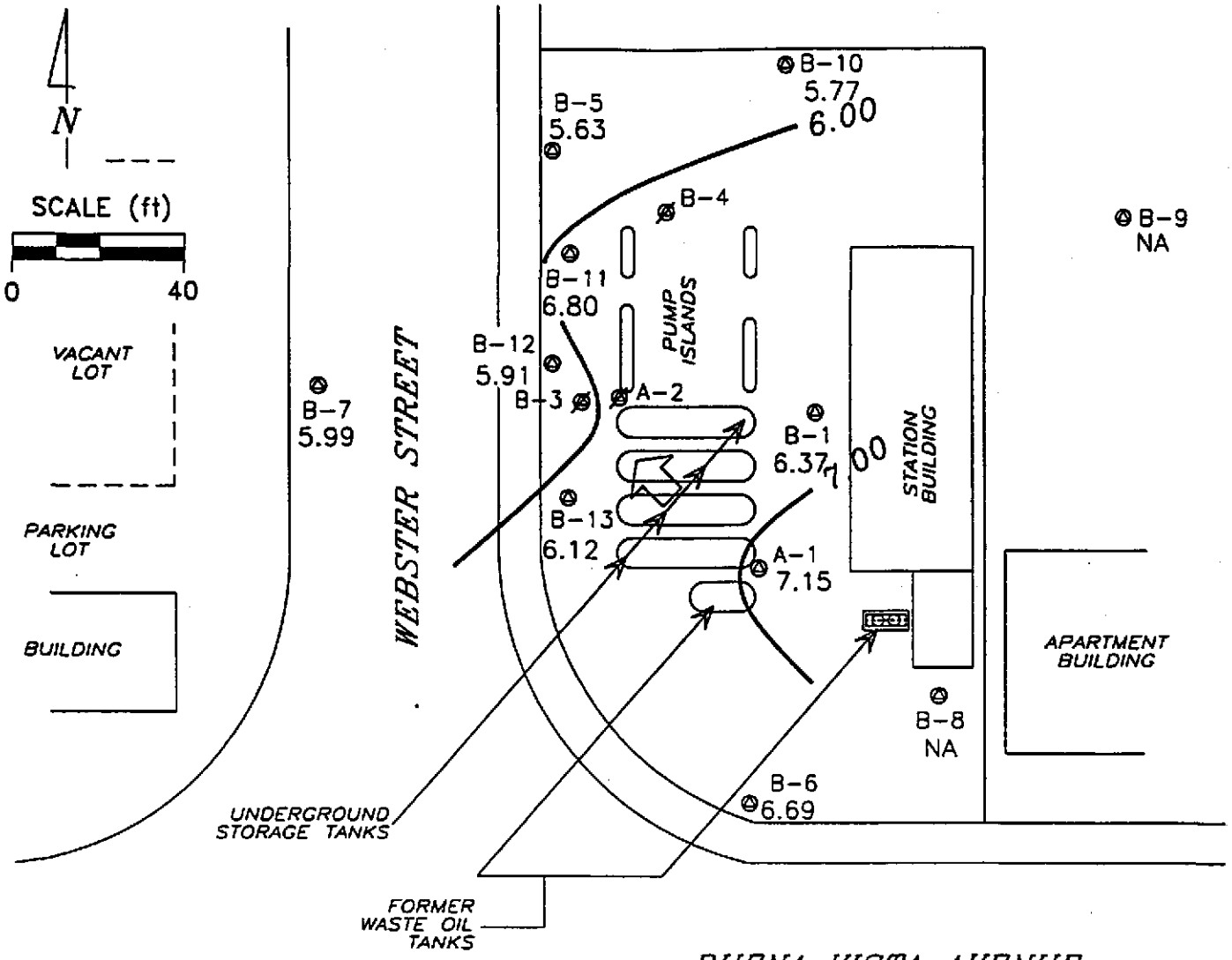
RRM
engineering contracting firm

Chevron Station 9-0290
1802 Webster Street
Alameda, California

GROUNDWATER ELEVATION CONTOUR MAP, NOVEMBER 30, 1998

FIGURE: **1**

PROJECT: DAC04



EXPLANATION

- ⊙ MONITORING WELL
- ⊘ ABANDONED MONITORING WELL
- 5.63 GROUNDWATER ELEVATION (FT, MSL)
- 6.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- NA DATA NOT AVAILABLE
- APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.01

REGISTERED GEOLOGIST
STEVEN E. KRCIK
No. 4975
STATE OF CALIFORNIA

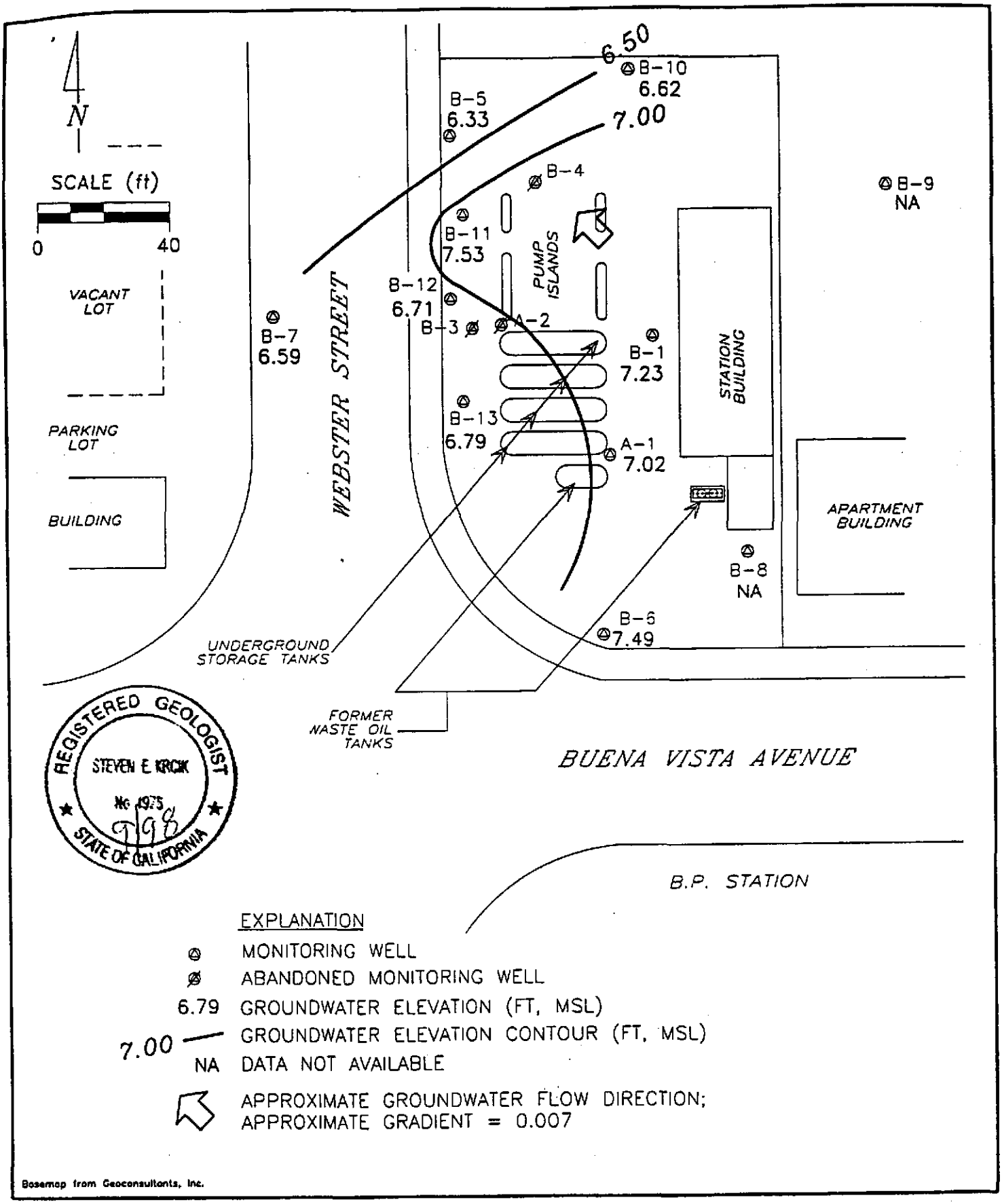
Basemap from Geoconsultants, Inc.

PREPARED BY
RRM
engineering contracting firm

Chevron Station 9-0290
1802 Webster Street
Alameda, California

GROUNDWATER ELEVATION CONTOUR MAP, JULY 29, 1998

FIGURE: 1
PROJECT: DAC04

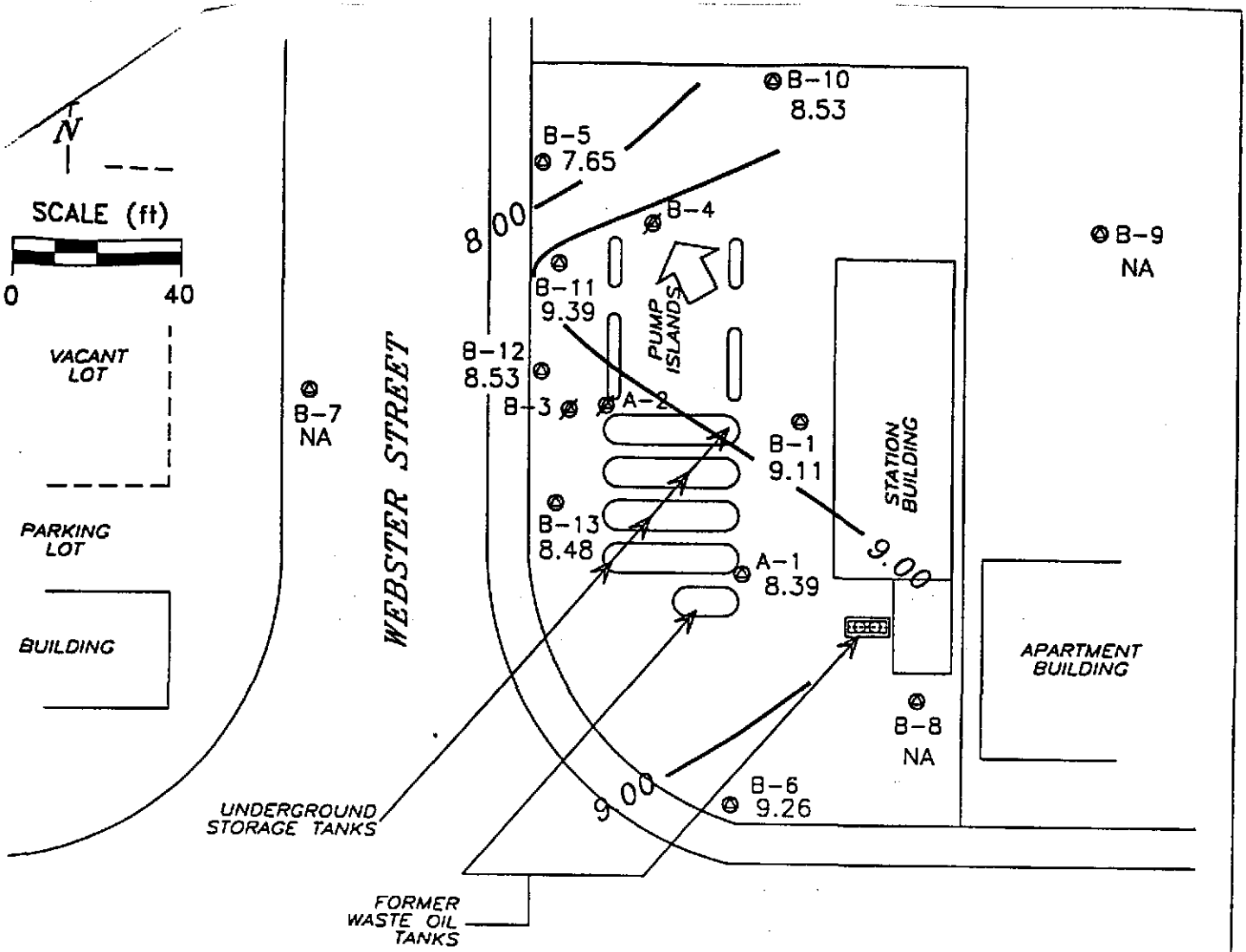


EXPLANATION

- ⊙ MONITORING WELL
- ⊘ ABANDONED MONITORING WELL
- 6.79 GROUNDWATER ELEVATION (FT, MSL)
- 7.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- NA DATA NOT AVAILABLE
- APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.007

Basemap from Geoconsultants, Inc.

PREPARED BY RRM engineering contracting firm	Chevron Station 9-0290 1802 Webster Street Alameda, California GROUNDWATER ELEVATION CONTOUR MAP, JUNE 3, 1998	FIGURE: 1 PROJECT: DAC04



EXPLANATION

- ⊙ MONITORING WELL
- ⌀ ABANDONED MONITORING WELL
- 9.26 GROUNDWATER ELEVATION (FT, MSL)
- 9.00 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- NA DATA NOT AVAILABLE
- ⇧ APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.02

REGISTERED GEOLOGIST
STEVEN E KRCIK
No. 4973
2/98
STATE OF CALIFORNIA

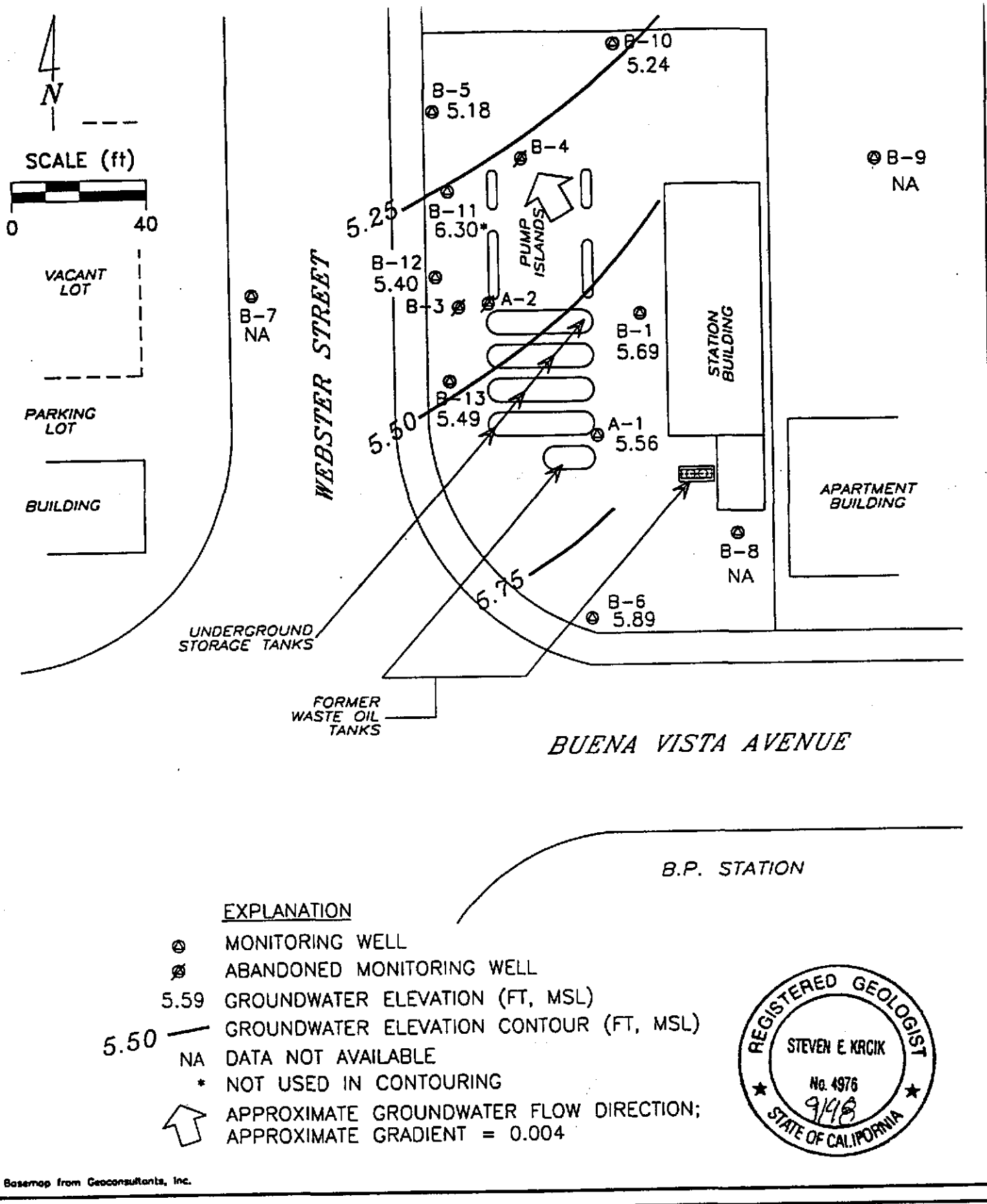
Basemap from Geoconsultants, Inc.

PREPARED BY
RRM
engineering contracting firm

Chevron Station 9-0290
1802 Webster Street
Alameda, California

GROUNDWATER ELEVATION CONTOUR MAP, FEBRUARY 4, 1998

FIGURE: 1
PROJECT: DAC04



EXPLANATION

- ⊙ MONITORING WELL
- ⌀ ABANDONED MONITORING WELL
- 5.59 GROUNDWATER ELEVATION (FT, MSL)
- 5.50 — GROUNDWATER ELEVATION CONTOUR (FT, MSL)
- NA DATA NOT AVAILABLE
- * NOT USED IN CONTOURING
- APPROXIMATE GROUNDWATER FLOW DIRECTION; APPROXIMATE GRADIENT = 0.004

REGISTERED GEOLOGIST
STEVEN E. KRCIK
No. 4976
9/98
STATE OF CALIFORNIA

Basemap from Geoconsultants, Inc.

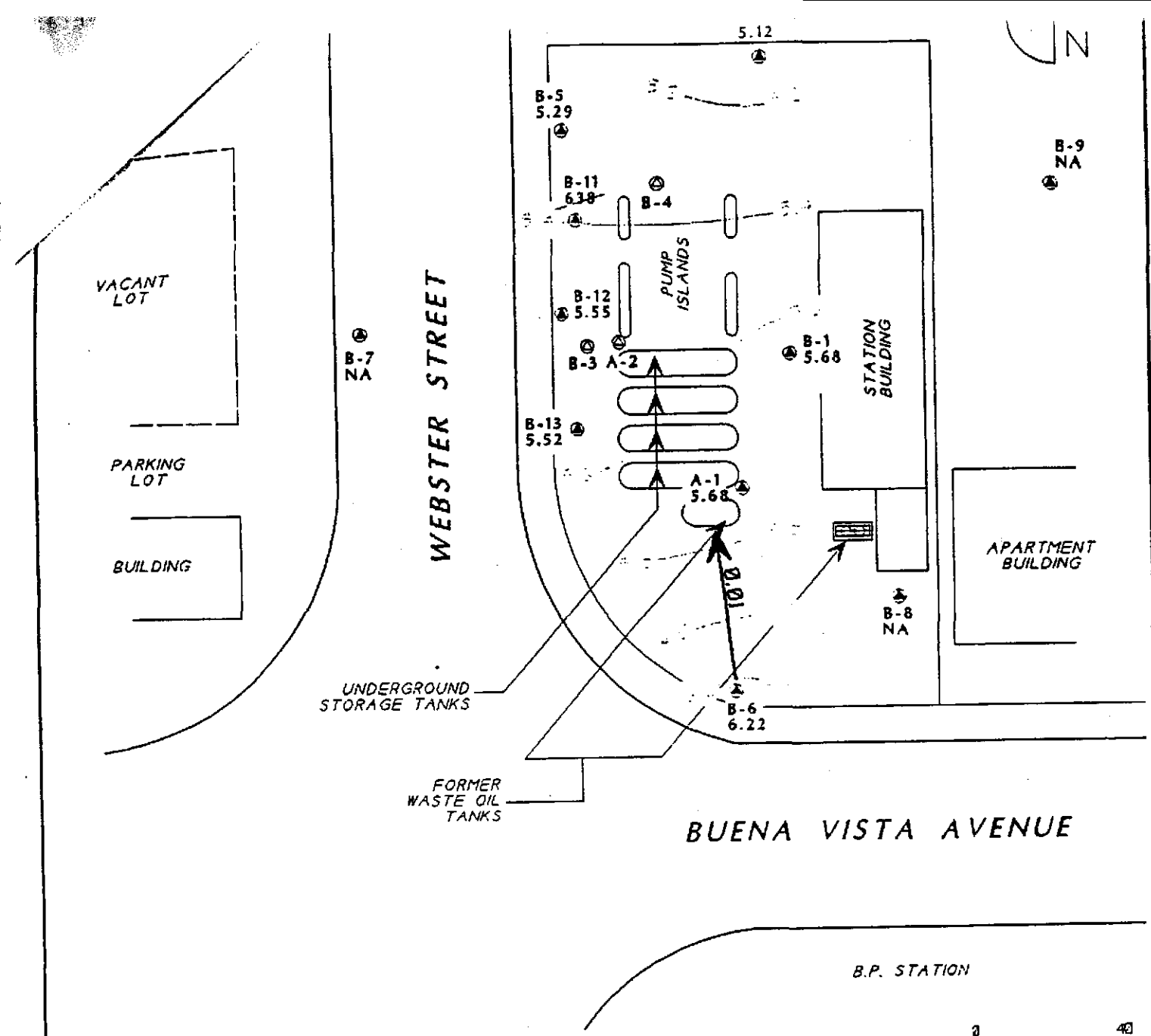
PREPARED BY
RRM
engineering contracting firm

Chevron Station 9-0290
1802 Webster Street
Alameda, California

GROUNDWATER ELEVATION CONTOUR MAP, OCTOBER 28, 1997

FIGURE: 1

PROJECT: DAC04



EXPLANATION

B-6	MONITORING WELL LOCATION AND WELL NUMBER
B-4	ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
6.22	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
NA	DATA NOT AVAILABLE
~~6.38~~	GROUND-WATER ELEVATION NOT USED FOR CONTOURING
5.2	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
0.01	APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET

0 40
FEET

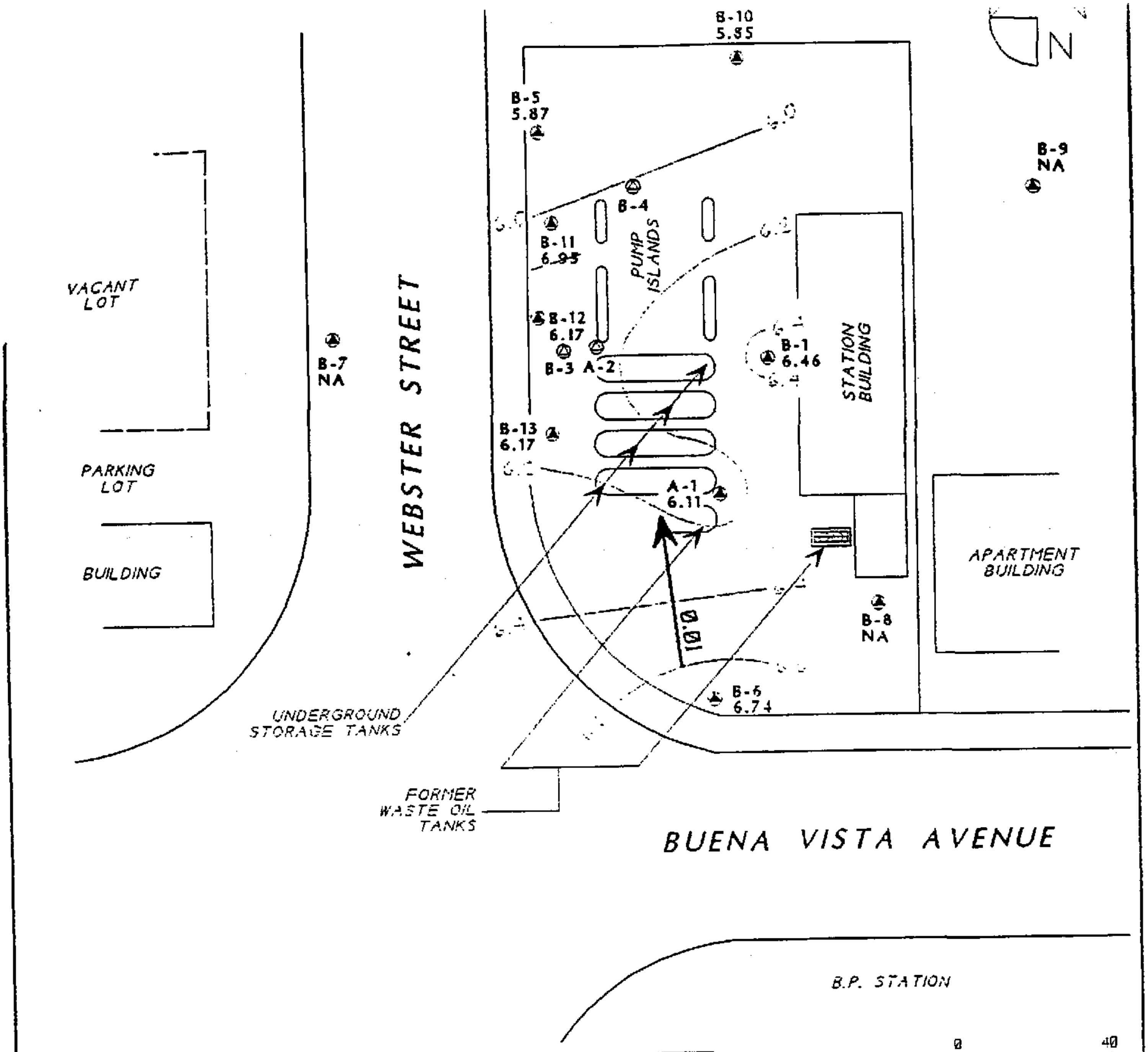
REGISTERED GEOLOGIST
JEREMY C. WIRE
NO. 98
Certified Hydrogeologist
STATE OF CALIFORNIA

TITLE : GROUND-WATER ELEVATION CONTOUR MAP - AUGUST 5, 1997

LOCATION : CHEVRON SERVICE STATION No.: 9-0290
1802 WEBSTER STREET, ALAMEDA, CALIFORNIA

SOURCE :CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

GEOCONSULTANTS, INC
SAN JOSE, CALIFORNIA
Project No. G758-09
DRAWING NO. CHEVRON-CHEVRON-0290



EXPLANATION

B-6	MONITORING WELL LOCATION AND WELL NUMBER
B-4	ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
6.74	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
NA	DATA NOT AVAILABLE
~~6.95~~	GROUND-WATER ELEVATION NOT USED FOR CONTOURING
—— 6.6	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
0.01 →	APPROXIMATE DIRECTION OF GROUND-WATER FLOW, GRADIENT INDICATED IN FEET / FEET

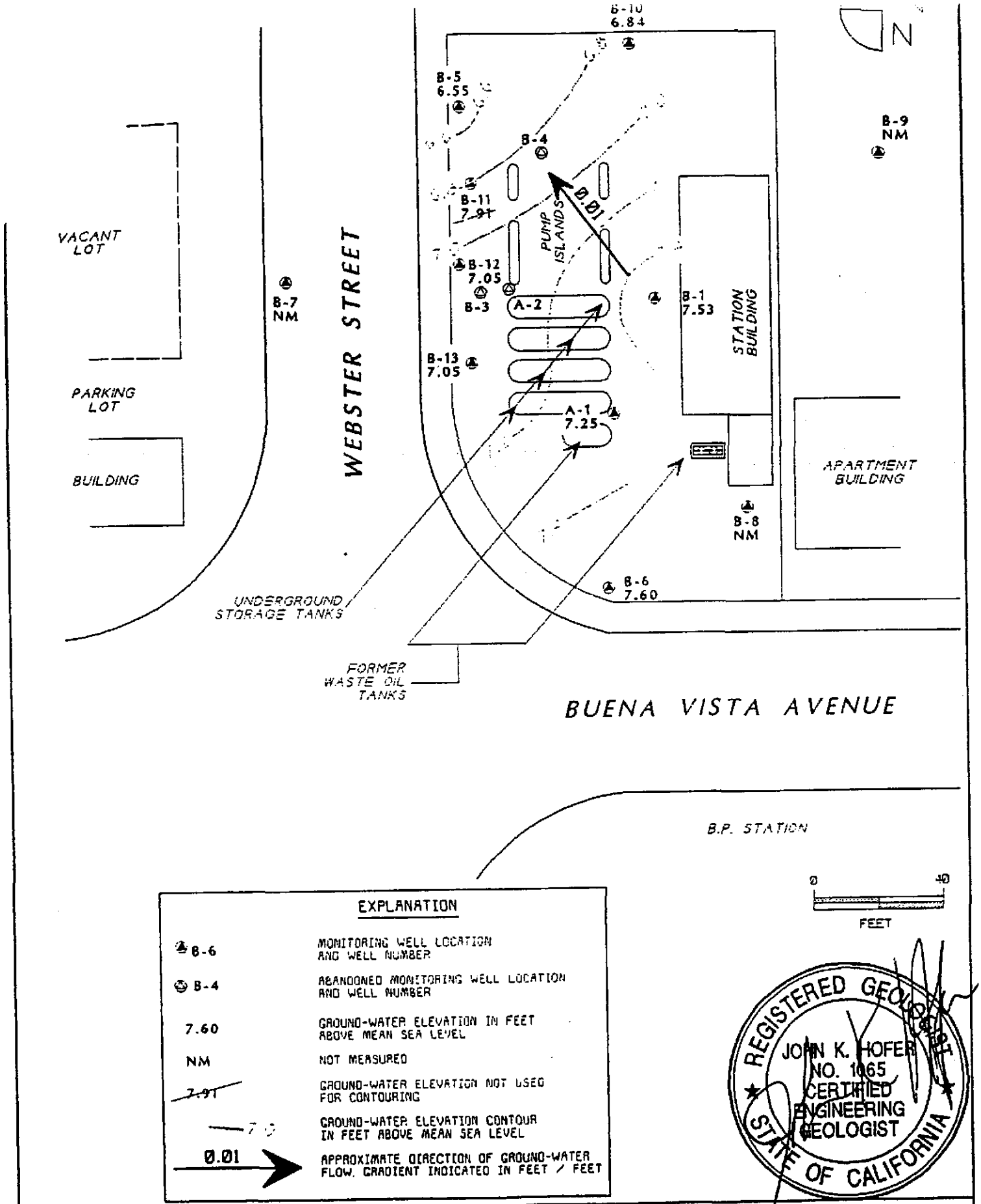
REGISTERED GEOLOGIST
JOHN K. HOFER
NO. 1065
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

TITLE : GROUND-WATER ELEVATION CONTOUR MAP - MAY 1, 1997

LOCATION : CHEVRON SERVICE STATION No.: 9-0290
1802 WEBSTER STREET, ALAMEDA, CALIFORNIA

SOURCE :CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

GEOCONSULTANTS, INC
SAN JOSE, CALIFORNIA
Project No. G758-09
DRAWING NO. CHEVRON\CH90290\H050197



EXPLANATION

B-6	MONITORING WELL LOCATION AND WELL NUMBER
B-4	ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
7.60	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
NM	NOT MEASURED
~~7.91~~	GROUND-WATER ELEVATION NOT USED FOR CONTOURING
—7.0—	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
0.01 →	APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET

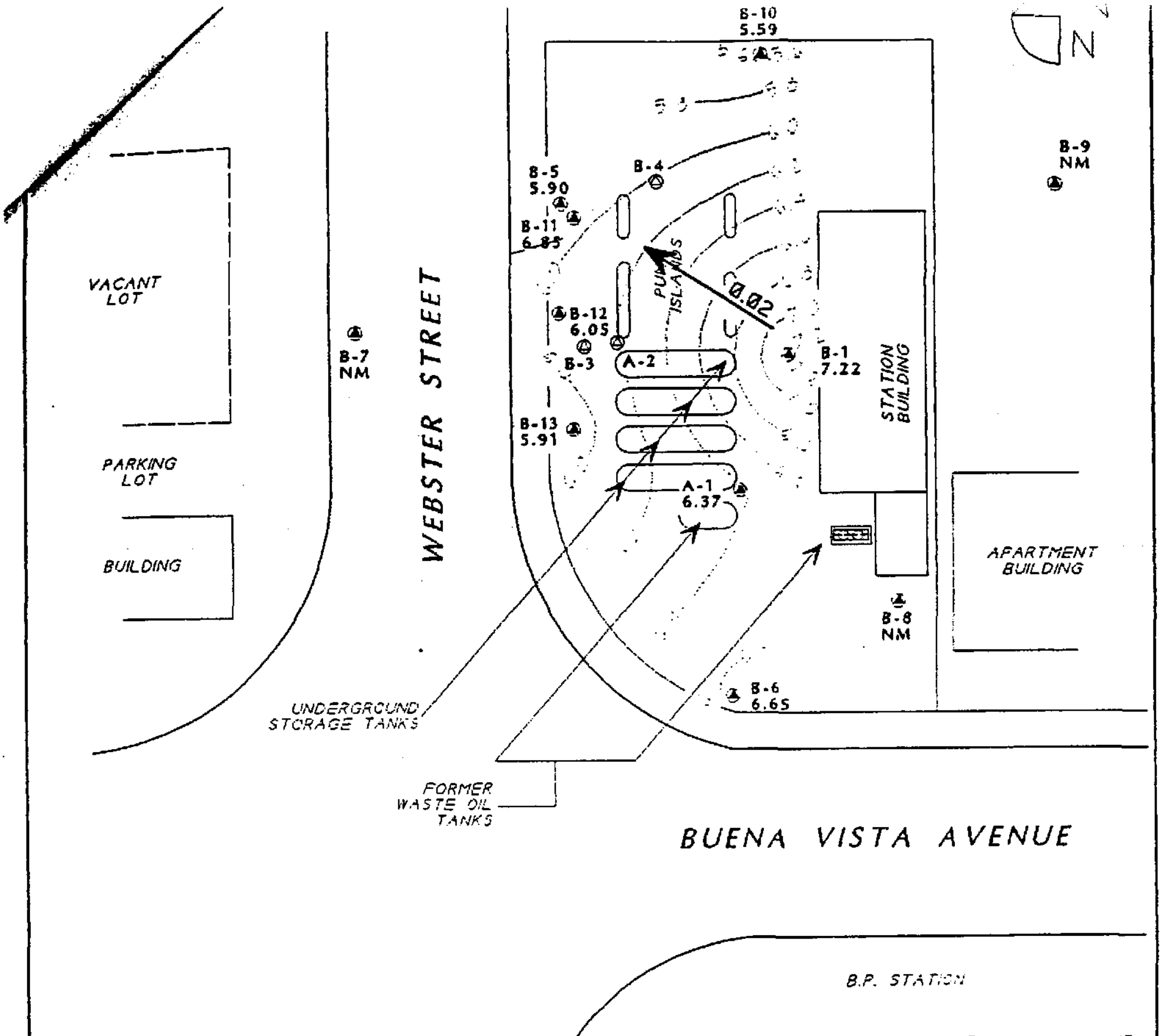
REGISTERED GEOLOGIST
JOHN K. HOFER
NO. 1065
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

TITLE : GROUND-WATER ELEVATION CONTOUR MAP - FEBRUARY 10, 1997

LOCATION : CHEVRON SERVICE STATION No.: 9-0290
1802 WEBSTER STREET, ALAMEDA, CALIFORNIA

SOURCE : CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

GEOCONSULTANTS, INC
SAN JOSE, CALIFORNIA
Project No. G758-09
DRAWING NO. CHEVRON-G758290-M021997



EXPLANATION

B-6	MONITORING WELL LOCATION AND WELL NUMBER
B-4	ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
6.65	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
NM	NOT MEASURED
~~6.85~~	GROUND-WATER ELEVATION NOT USED FOR CONTOURING
6.4	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
0.02 →	APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET

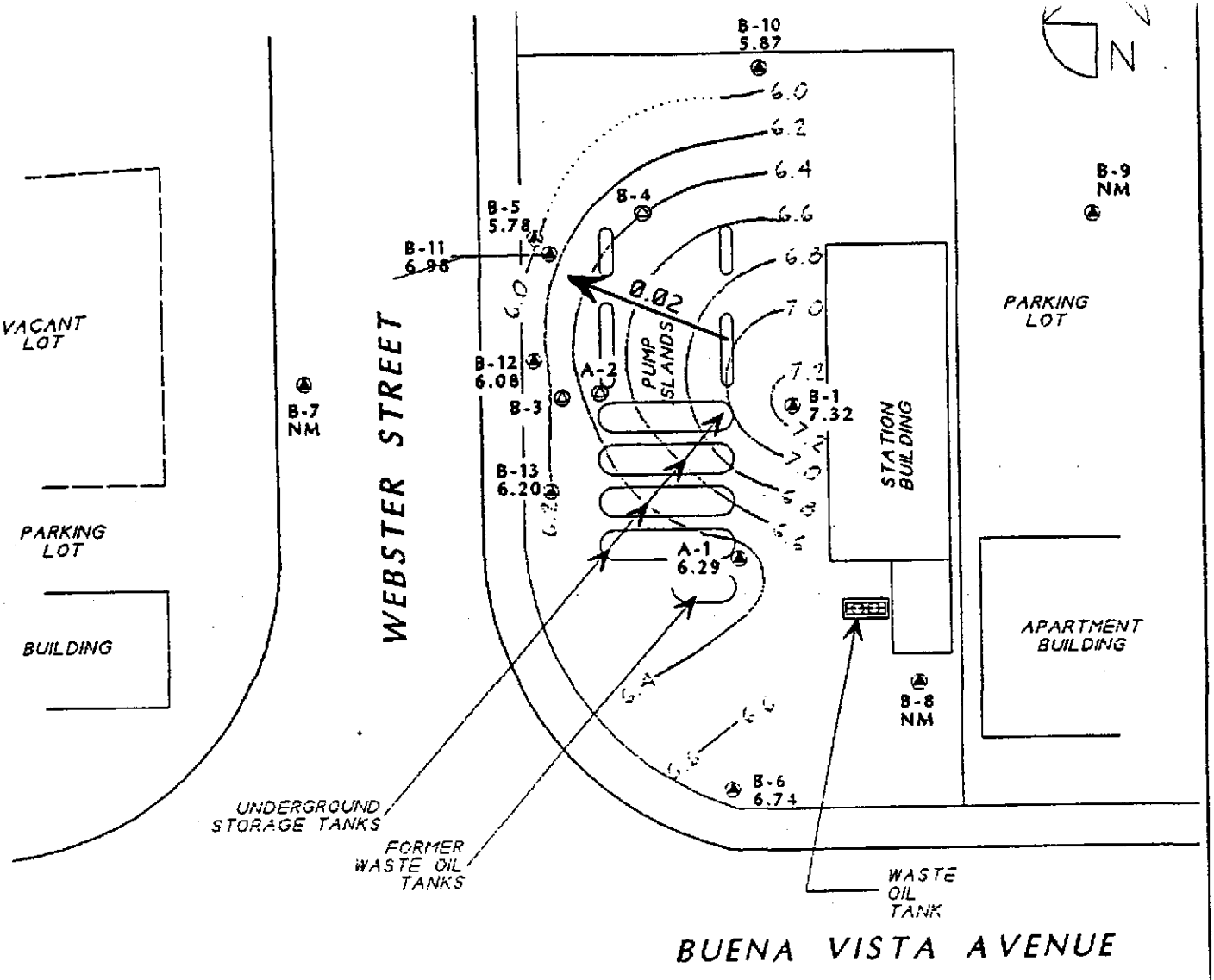
REGISTERED GEOLOGIST
JEREMY C. WIRE
NO. 58
Certified Hydrogeologist
STATE OF CALIFORNIA

TITLE : GROUND-WATER ELEVATION CONTOUR MAP - DECEMBER 12, 1996

LOCATION : CHEVRON SERVICE STATION No.: 9-0290 1802 WEBSTER STREET, ALAMEDA, CALIFORNIA

SOURCE : CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

GEOCONSULTANTS, INC
SAN JOSE, CALIFORNIA
Project No. G758-09
DRAWING NO. CHEVRON\D-90290\M12\96



0 40
FEET

EXPLANATION

B-6	MONITORING WELL LOCATION AND WELL NUMBER
B-4	ABANDONED MONITORING WELL LOCATION AND WELL NUMBER
6.74	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
NM	NOT MEASURED
~~6.98~~	GROUND-WATER ELEVATION NOT USED FOR CONTOURING
6.4	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
0.02	APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET

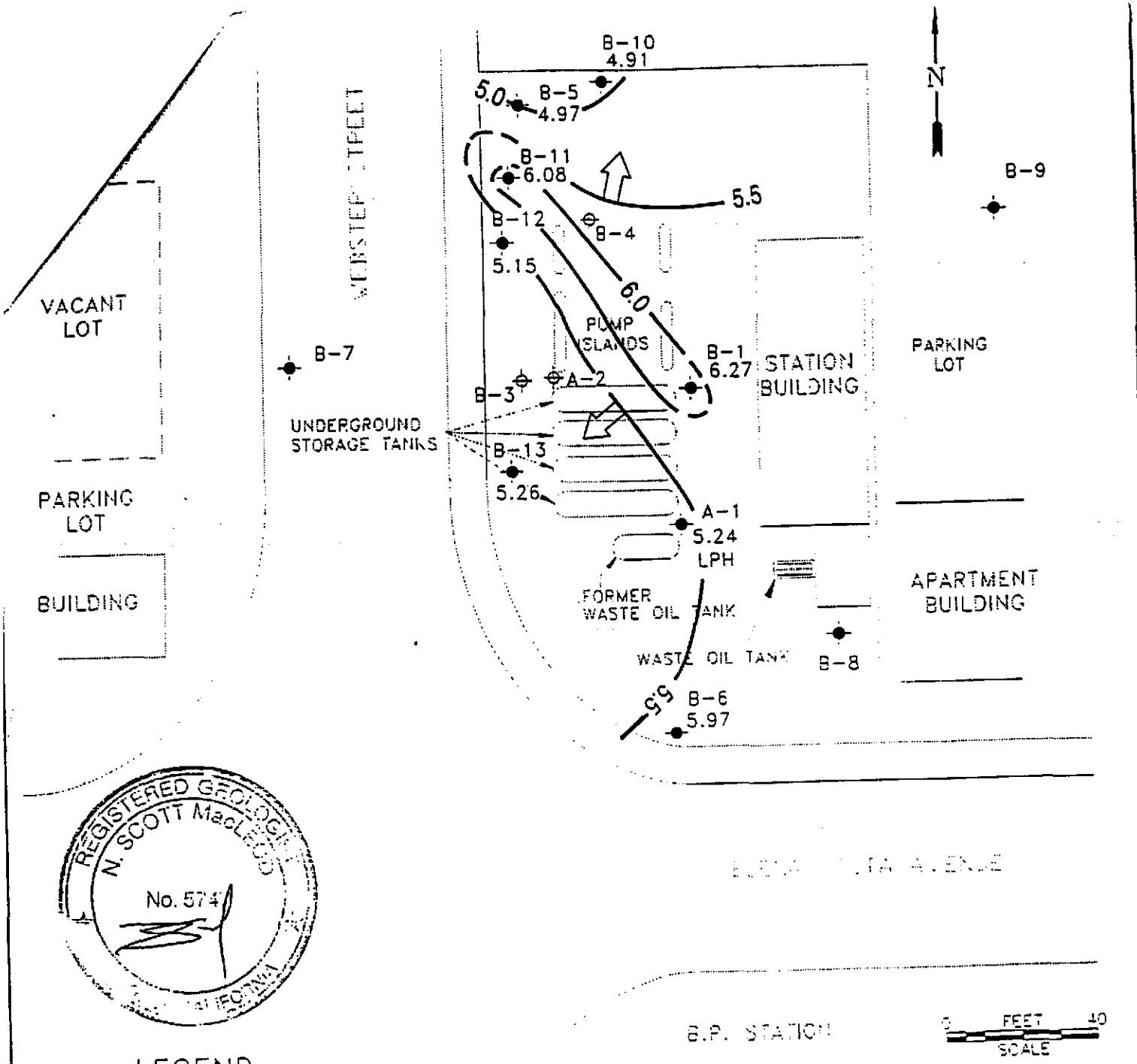
REGISTERED GEOLOGIST
JEREMY C. WIRE
No. 23
Certified
Hydrogeologist
STATE OF CALIFORNIA

TITLE : GROUND-WATER ELEVATION CONTOUR MAP - MAY 8, 1996

LOCATION : CHEVRON SERVICE STATION No.: 9-0290
1802 WEBSTER STREET, ALAMEDA, CALIFORNIA

SOURCE :CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

GEOCONSULTANTS, INC
SAN JOSE, CALIFORNIA
Project No. G758-09
DRAWING NO. CHEVRON-0290-WE050896



REGISTERED GEOLOGIST
N. SCOTT MacLEOD
No. 5741
CALIFORNIA

LEGEND

———	PROPERTY LINE
✦	MONITORING WELL
⊕	ABANDONED MONITORING WELL
LPH	LIQUID-PHASE HYDROCARBONS; NOT GAUGED
X.XX	POTENTIOMETRIC SURFACE ELEVATION (FT)
⌒	POTENTIOMETRIC SURFACE CONTOUR
⇐	GROUNDWATER FLOW DIRECTION

NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL

Base map from Groundwater Technology, Inc.

CAMBRIA
Environmental Technology, Inc.

Chevron Station 9-0290
1802 Webster Street
Alameda, California

\CHEVRON\9-0290\0290-QM.DWG

Ground Water Elevation
November 29, 1995

FIGURE
1

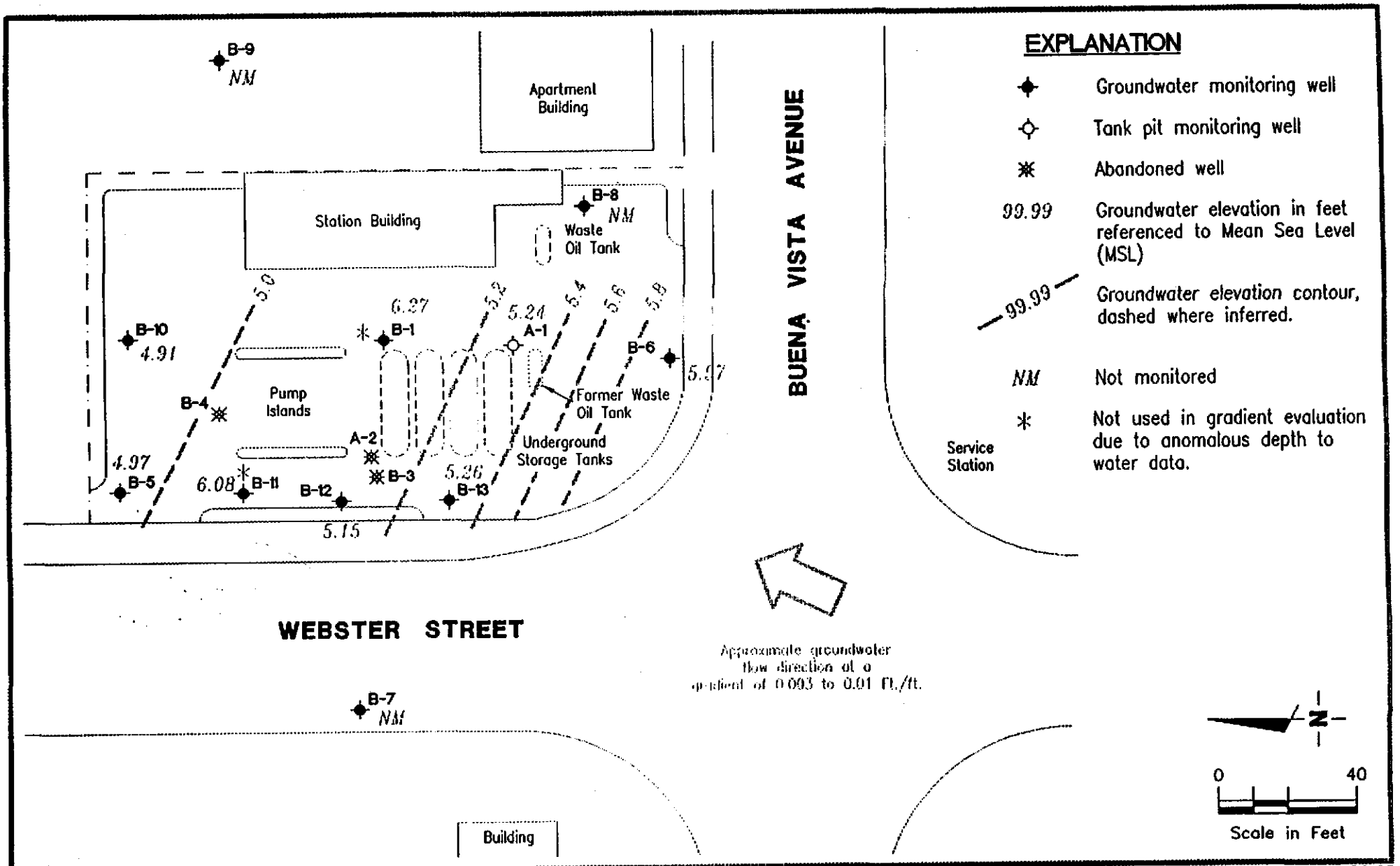


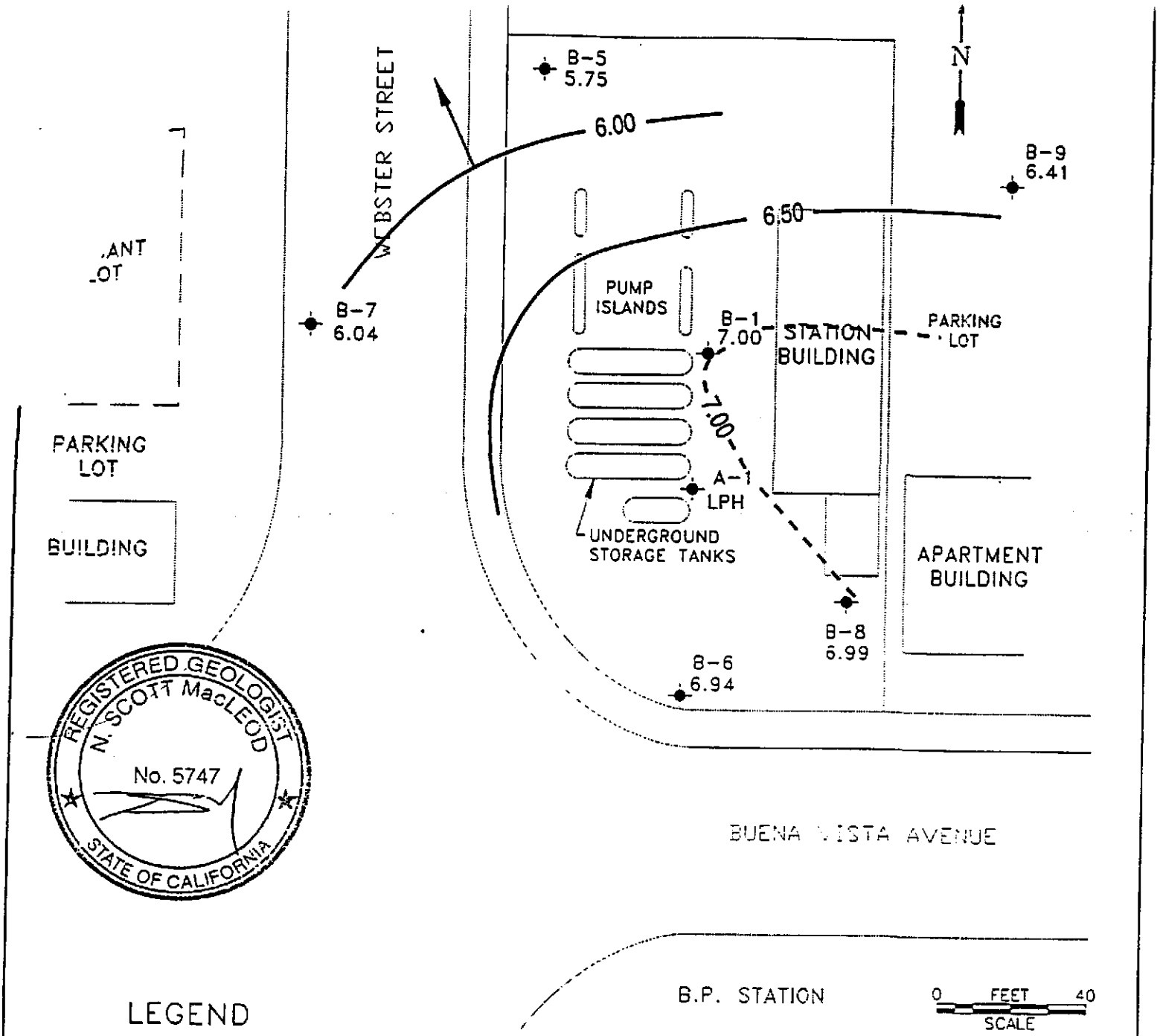
FIGURE 2

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(510) 551-7555

POTENTIOMETRIC MAP
Chevron Service Station No. 9-0290
1802 Webster Street
Alameda, California

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
5280.01		November 29, 1995	



REGISTERED GEOLOGIST
N. SCOTT MacLEOD
No. 5747
STATE OF CALIFORNIA

LEGEND

- PROPERTY LINE
- MONITORING WELL
- LPH — LIQUID-PHASE HYDROCARBONS; NOT GAUGED
- 8.75 — POTENTIOMETRIC SURFACE ELEVATION (FT)
- POTENTIOMETRIC SURFACE CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

Base map from Groundwater Technology, Inc.

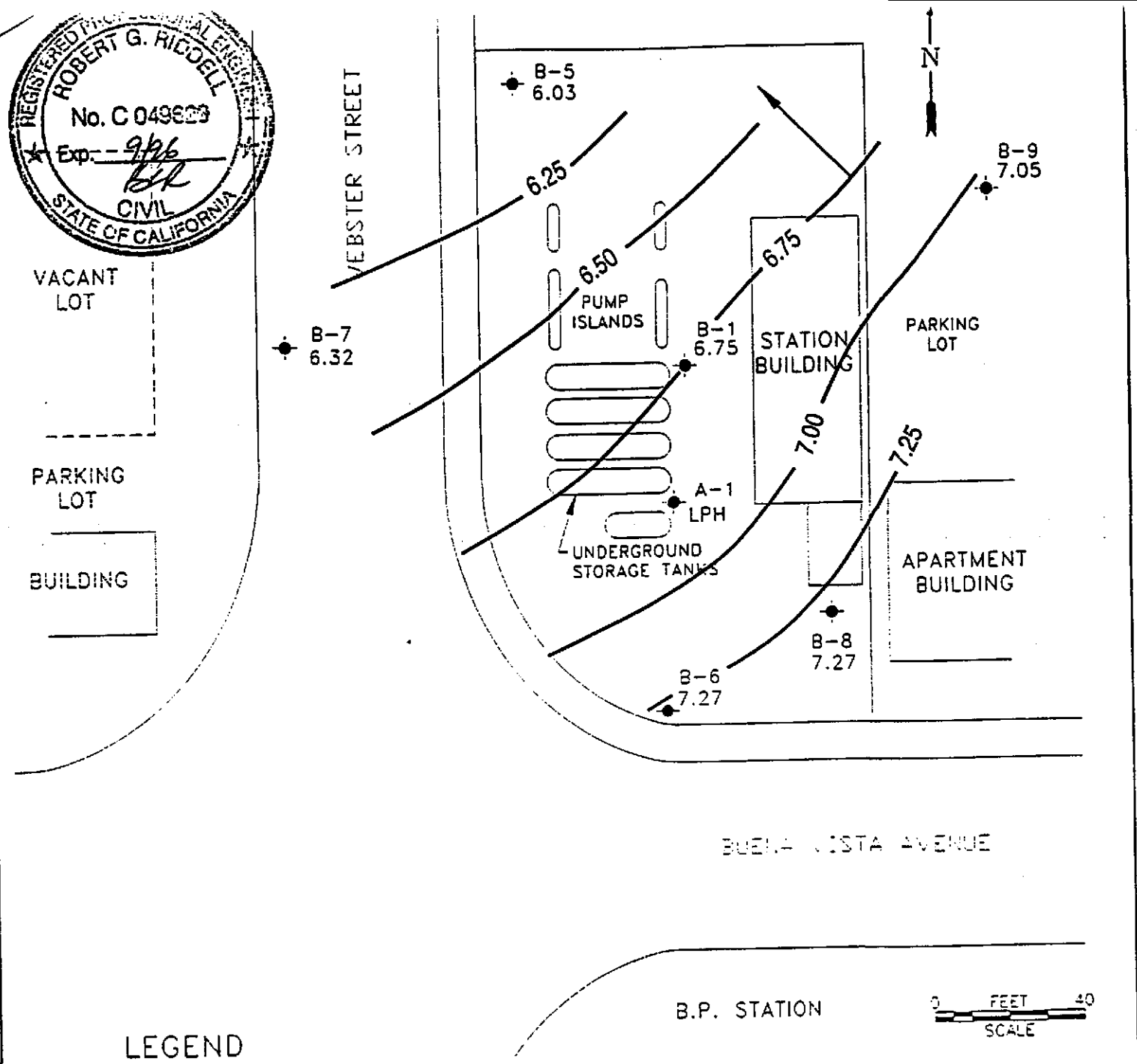
CAMBRIA
Environmental Technology, Inc.

Chevron Station 9-0290
1802 Webster Street
Alameda, California

\CHEVRONS-02900290-QM.DWG

Ground Water Elevation
May 1, 1995

FIGURE
1



LEGEND

——— - - -	PROPERTY LINE
⊕	MONITORING WELL
LPH	LIQUID-PHASE HYDROCARBONS; NOT GAUGED
8.75	POTENTIOMETRIC SURFACE ELEVATION (FT)
⌒	POTENTIOMETRIC SURFACE CONTOUR
←———	GROUNDWATER FLOW DIRECTION

NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

Base map from Groundwater Technology, Inc.

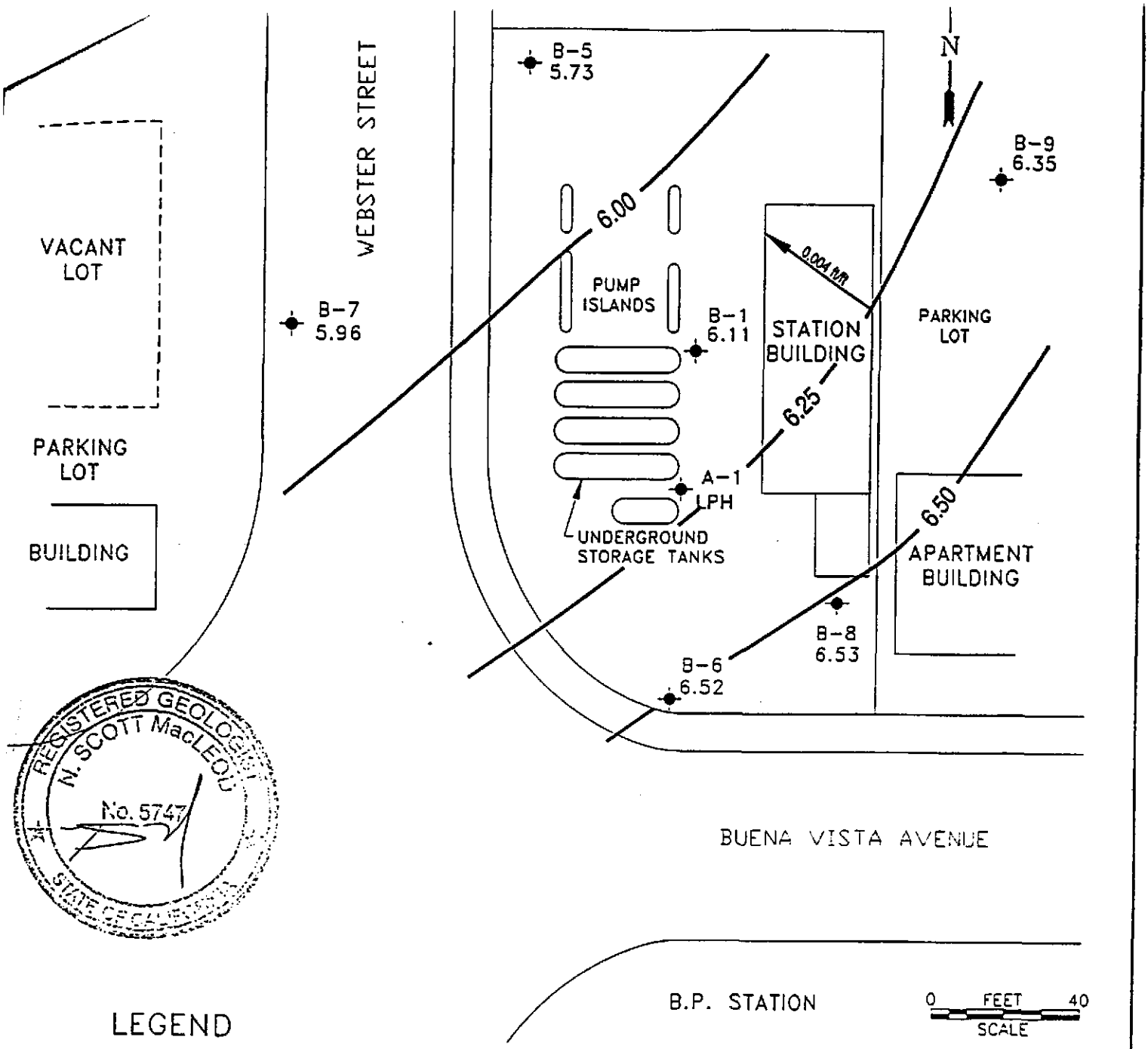
CAMBRIA
Environmental Technology, Inc.

Chevron Station 9-0290
1802 Webster Street
Alameda, California

\CHEVRON\9-0290\0290-GM.DWG

Ground Water Elevation
February 15, 1995

FIGURE
1



REGISTERED GEOLOGIST
N. SCOTT MacLEOD
No. 5747
STATE OF CALIFORNIA

LEGEND

- PROPERTY LINE
- MONITORING WELL
- LPH — LIQUID-PHASE HYDROCARBONS, COULD NOT GAUGE
- X.XX — POTENTIOMETRIC SURFACE ELEVATION (FT)
- POTENTIOMETRIC SURFACE CONTOUR
- X.XX — GROUNDWATER FLOW DIRECTION AND GRADIENT

NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

Base map from Groundwater Technology, Inc.

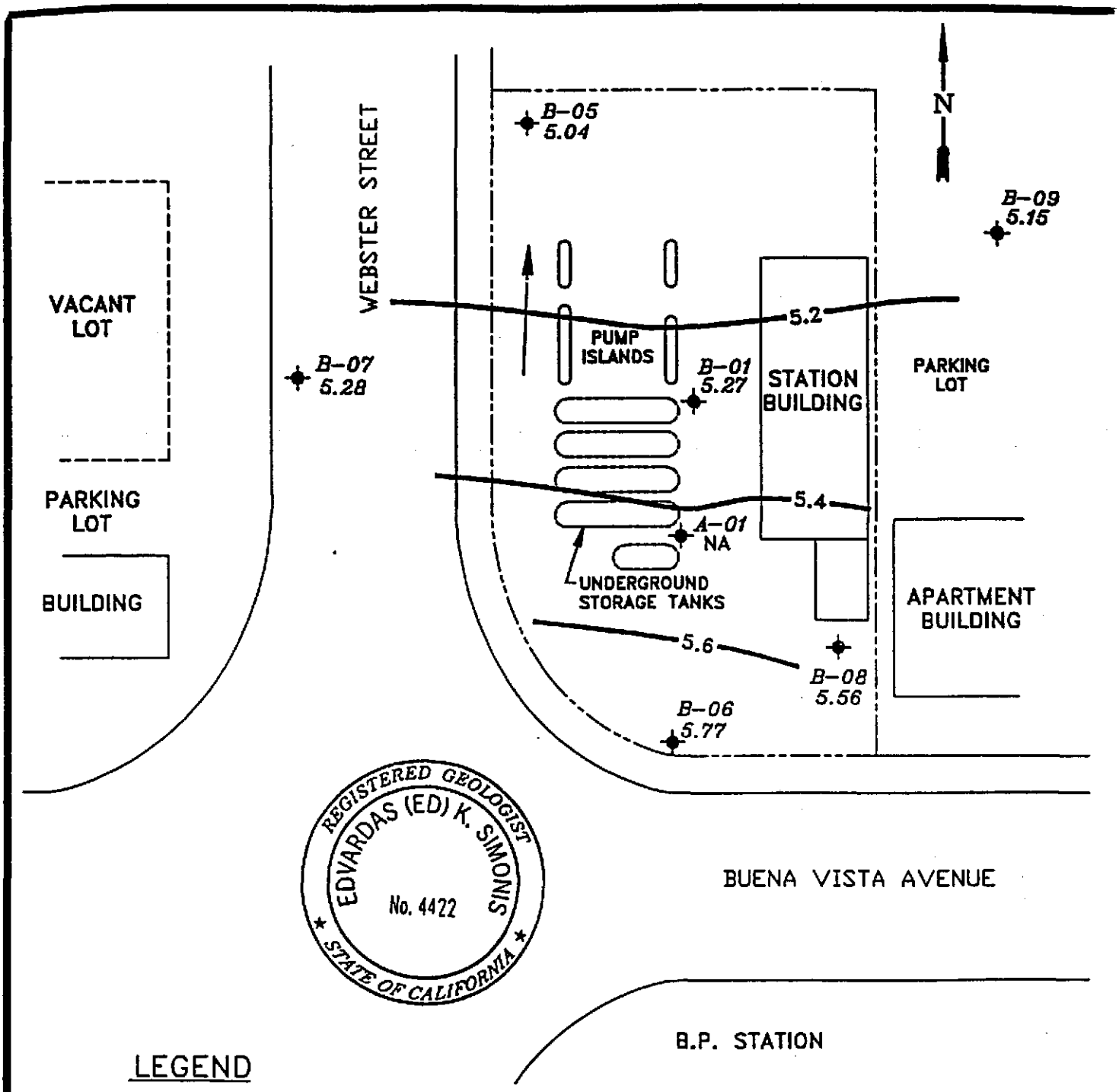
CAMBRIA
Environmental Technology, Inc.

Chevron Station 9-0290
1802 Webster Street
Alameda, California

\CHEVRON\9-0290\0290-GM(4Q94).DWG

Ground Water Elevation
November 30, 1994

FIGURE
1



LEGEND

— — — —	PROPERTY LINE
✦	MONITORING WELL
NA	NOT AVAILABLE
X.XX	POTENTIOMETRIC SURFACE ELEVATION (FT)
⌒	POTENTIOMETRIC SURFACE CONTOUR
←	GROUNDWATER FLOW DIRECTION

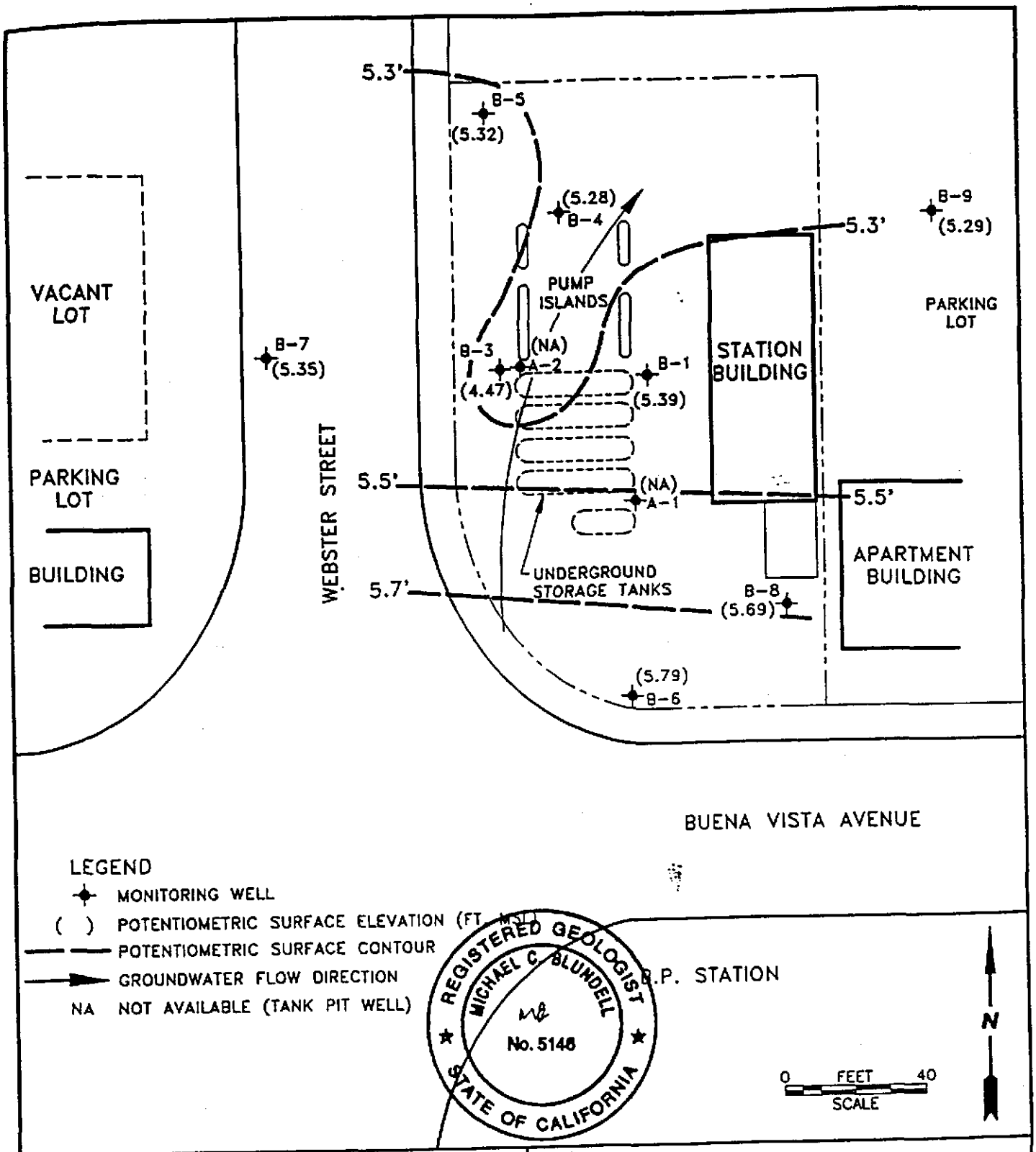
NOTE:
1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

GROUNDWATER TECHNOLOGY

0 FEET 40
SCALE

POTENTIOMETRIC SURFACE MAP (8/18/94)

CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION NO. 9-0290	FILE: 4098PSM, (1:40)	PROJECT NO.: 02010-4098	PM KJ	PE/RG Ed
LOCATION: 1902 WEBSTER STREET	REV.		FIGURE:	

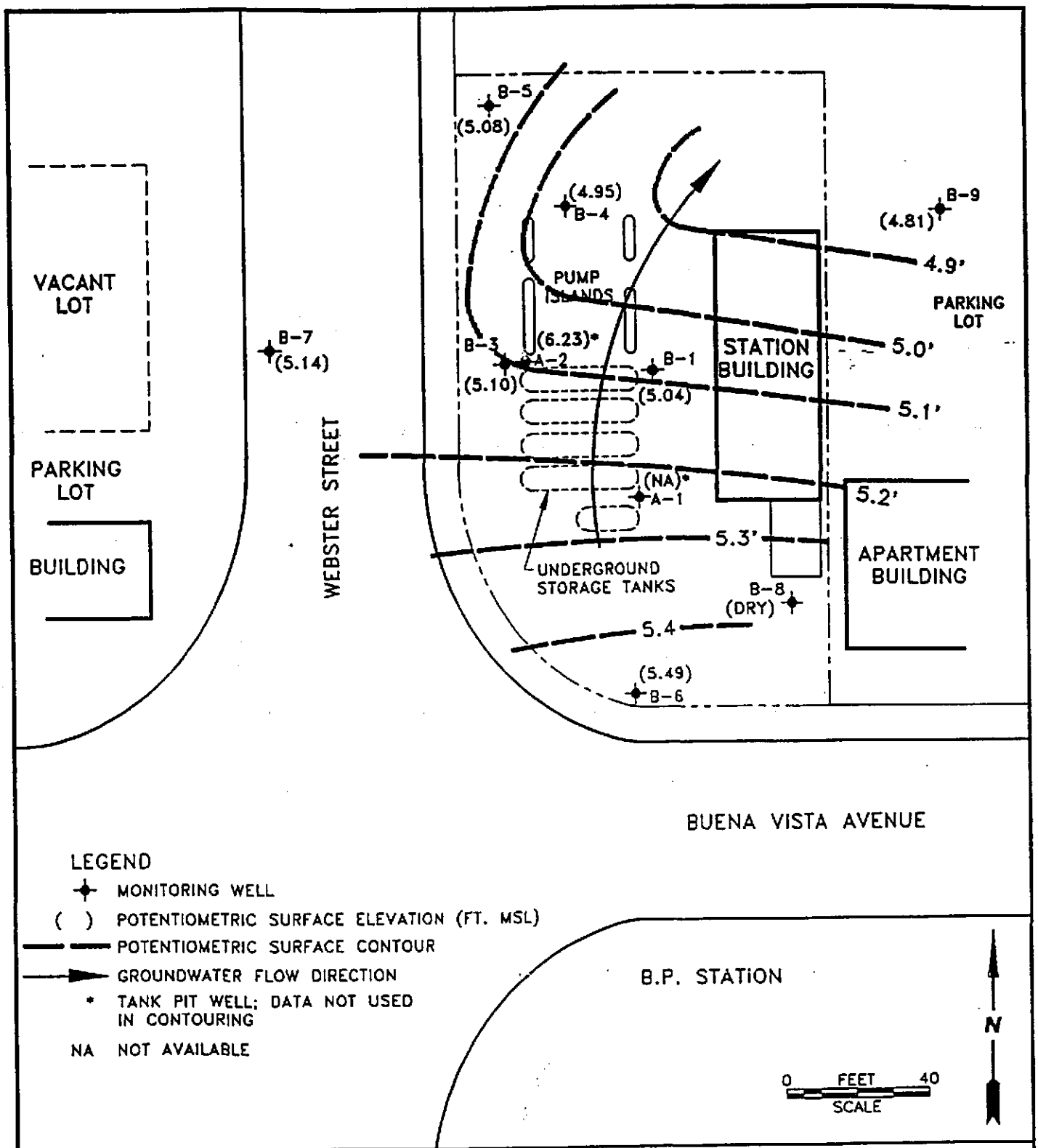


GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(510) 671-2387

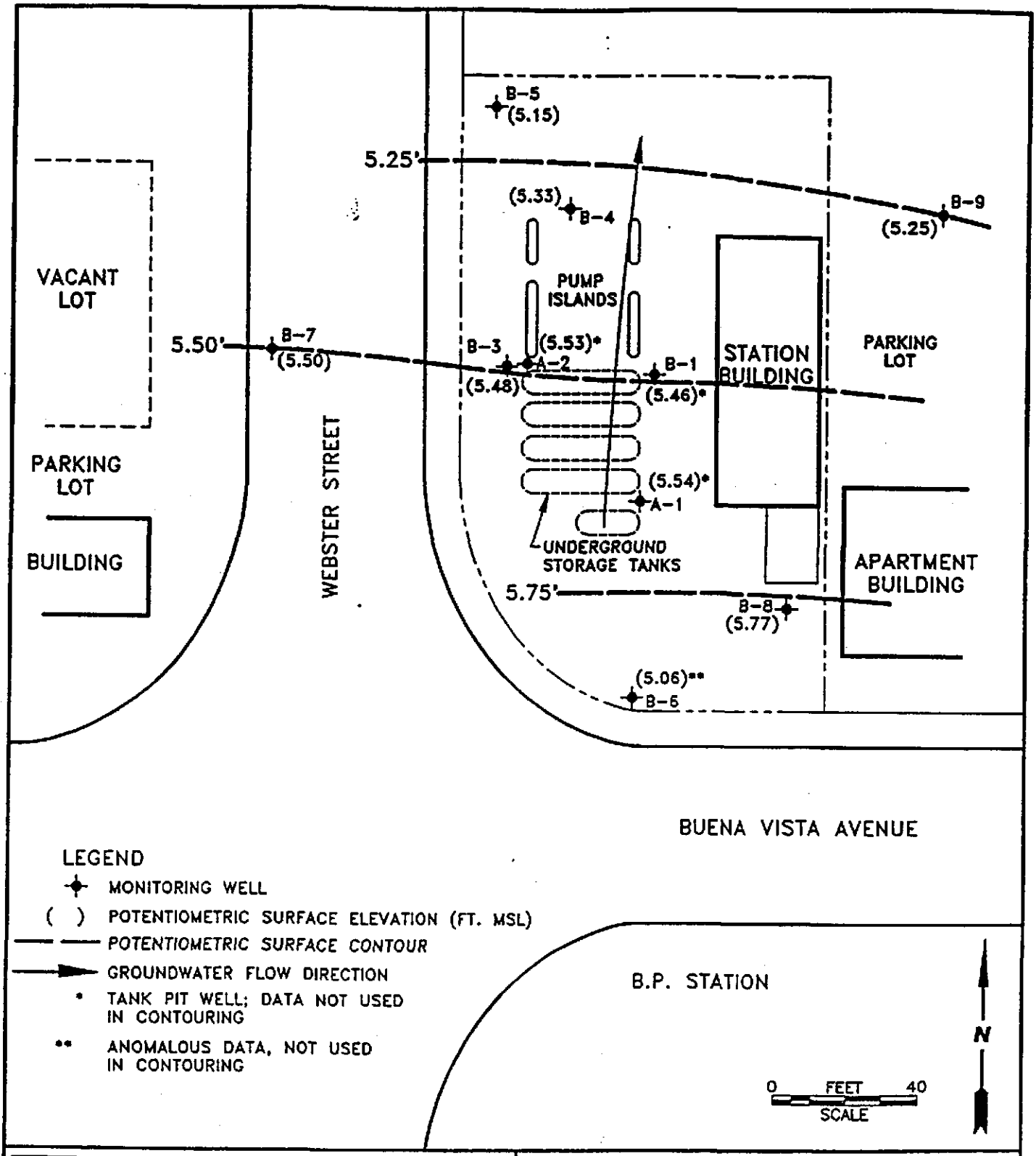
POTENTIOMETRIC SURFACE MAP (1/17/94)

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0290	1802 WEBSTER STREET ALAMEDA, CALIFORNIA	0	2/24/94

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
JDW	MBB	TW	ML	PSM11794	020102974	1



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				POTENTIOMETRIC SURFACE MAP (10/19/93)		
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0290				LOCATION: 1802 WEBSTER STREET ALAMEDA, CALIFORNIA	REV. NO.: 0	DATE: 11/16/93
PM: JHW	PE/RG: [illegible]	DESIGNED: TW	DETAILED: CY	ACAD FILE: PSMN93	PROJECT NO.: 020204098	FIGURE: 1



GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(510) 671-2387

POTENTIOMETRIC SURFACE MAP (7/19/93)

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0290	1802 WEBSTER STREET ALAMEDA, CALIFORNIA	0	8/19/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
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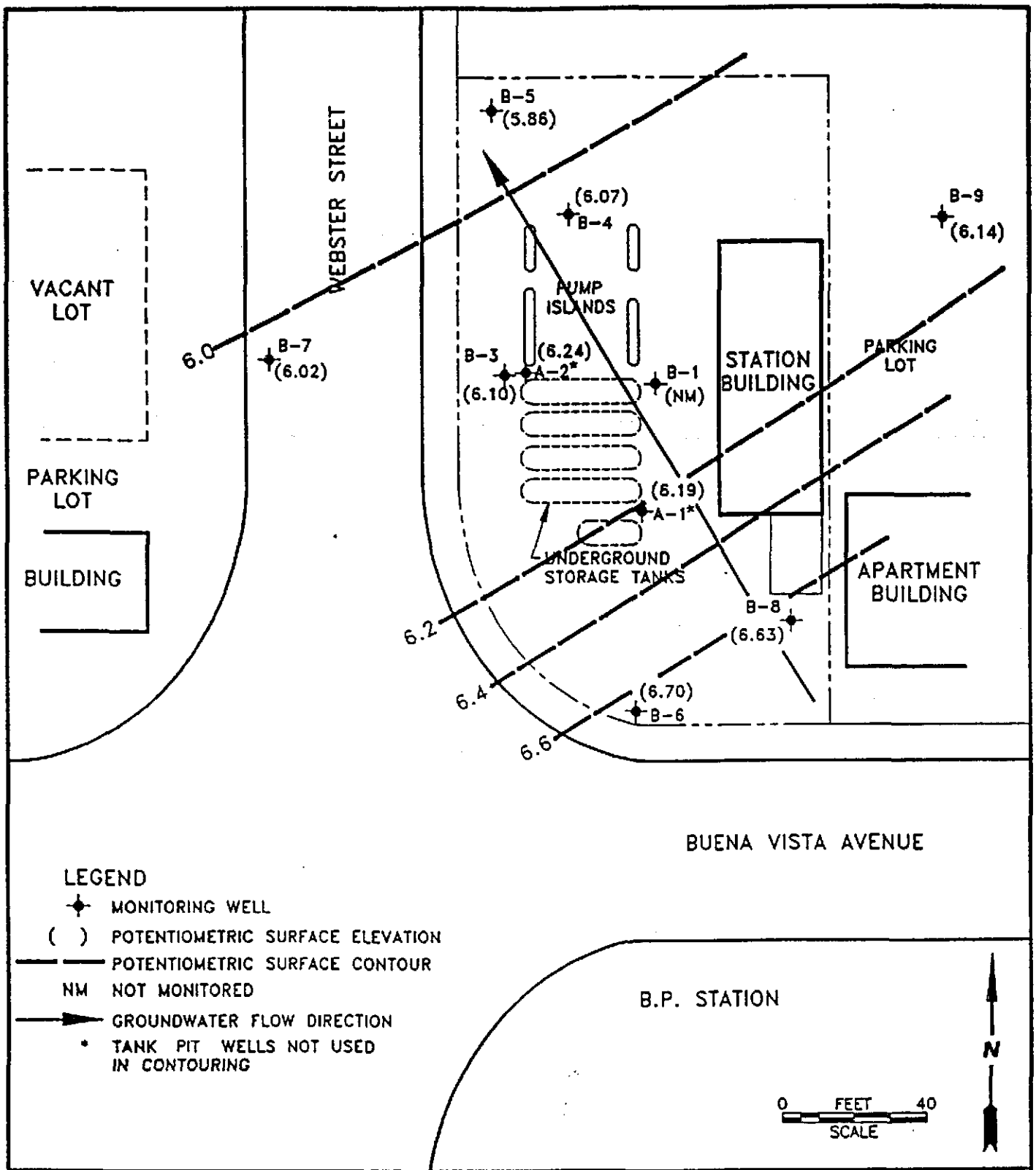
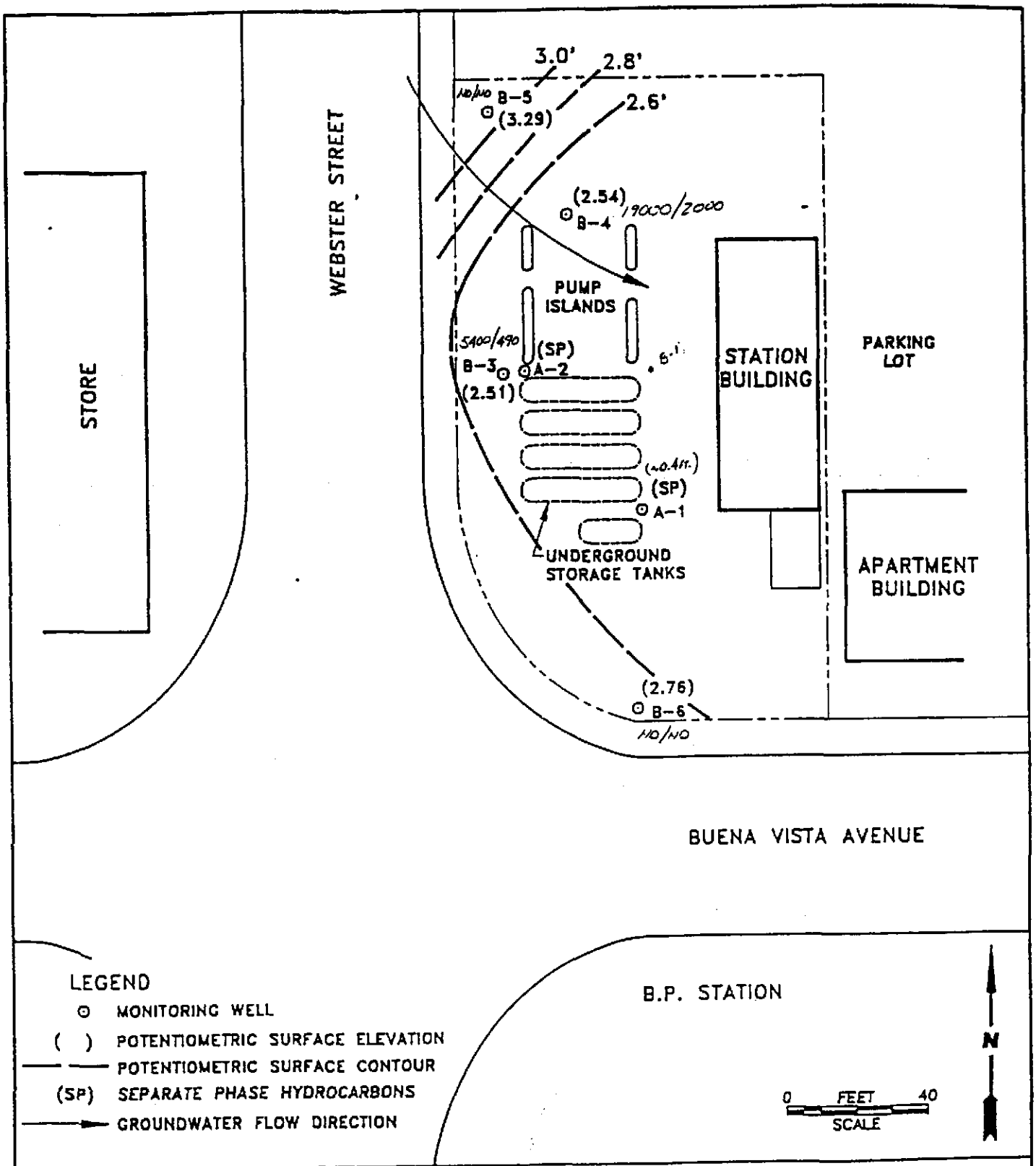


GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(510) 671-2387

POTENTIOMETRIC SURFACE MAP (4/23/93)

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0290	1802 WEBSTER STREET ALAMEDA, CALIFORNIA	0	5/14/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
JAW	DRK	TW	CY	SP593/SP1092	020202974	6



GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(310) 671-2387

POTENTIOMETRIC SURFACE MAP (1/6/93)

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0290	1802 WEBSTER STREET ALAMEDA, CALIFORNIA	0	2/22/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
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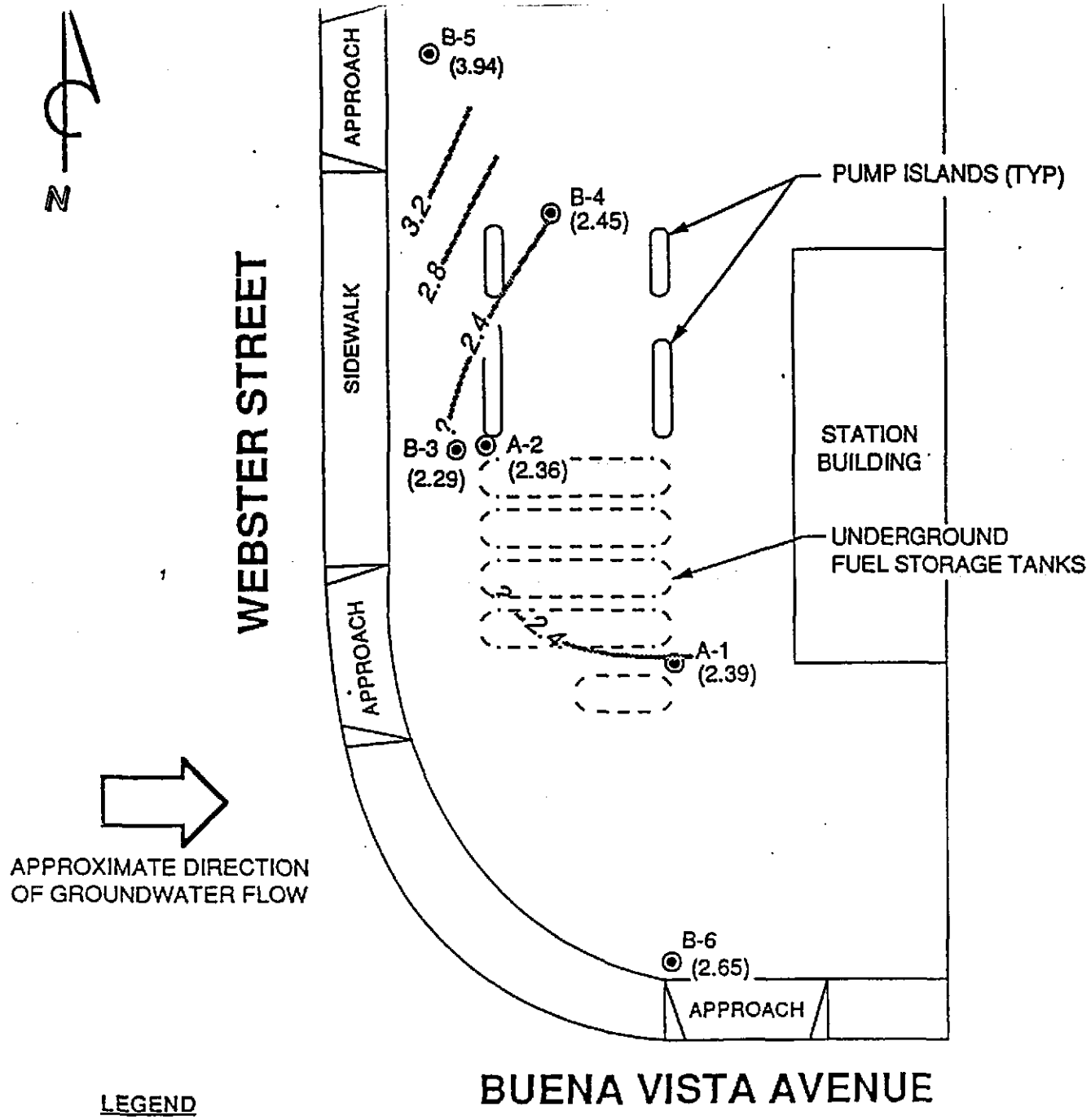


LEGEND

A-1 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

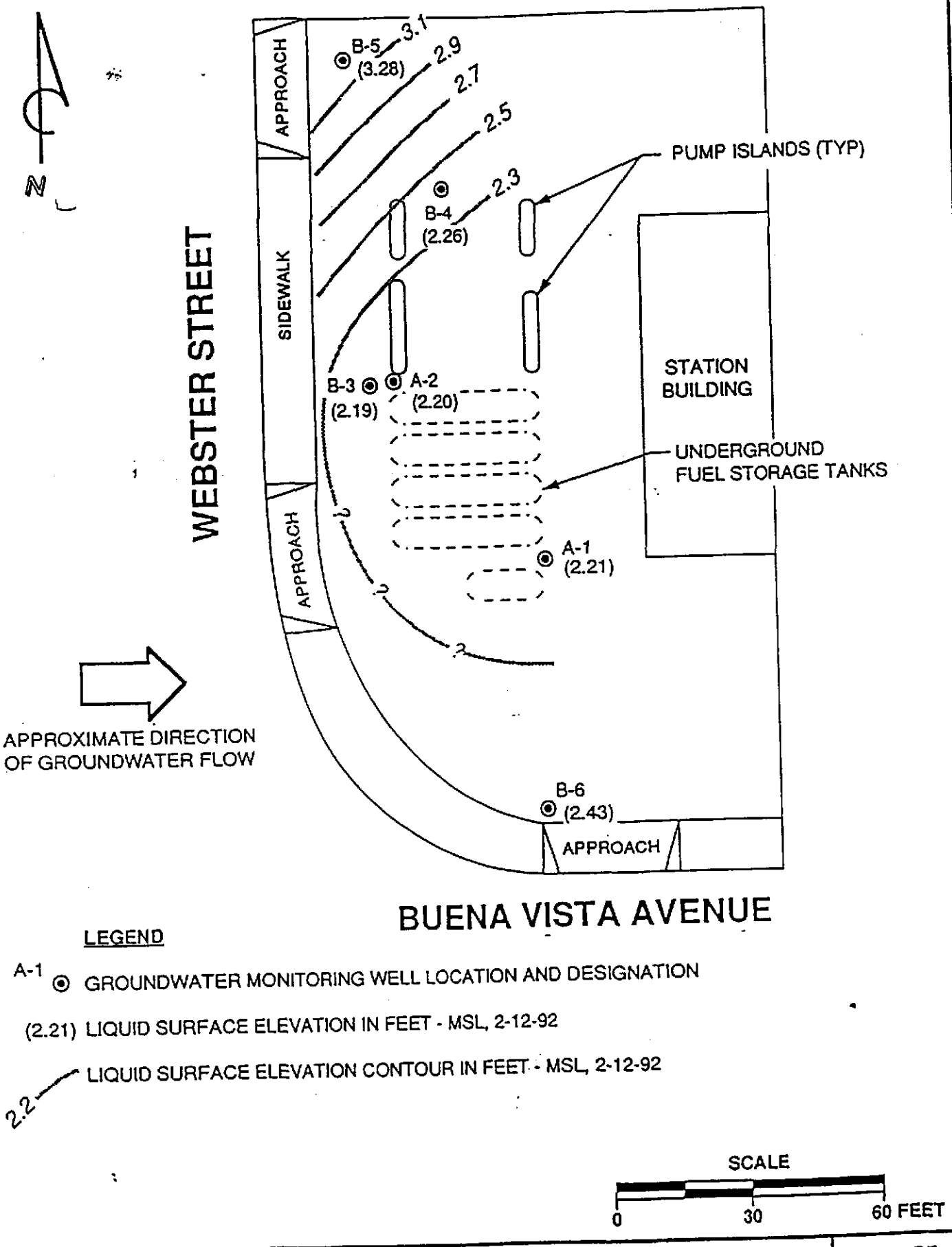
(2.39) LIQUID SURFACE ELEVATION IN FEET - MSL, 5-18-92

2.4 LIQUID SURFACE ELEVATION CONTOUR IN FEET - MSL, 5-18-92

SCALE

0 30 60 FEET

PACIFIC ENVIRONMENTAL GROUP, INC.	CHEVRON USA STATION 9-0290 1802 Webster Street at Buena Vista Avenue Alameda, California	FIGURE: 1
	LIQUID SURFACE ELEVATION CONTOUR MAP	PROJECT: 325-10.01



LEGEND

A-1 ⊙ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

(2.21) LIQUID SURFACE ELEVATION IN FEET - MSL, 2-12-92

2.2 LIQUID SURFACE ELEVATION CONTOUR IN FEET - MSL, 2-12-92

SCALE

0 30 60 FEET

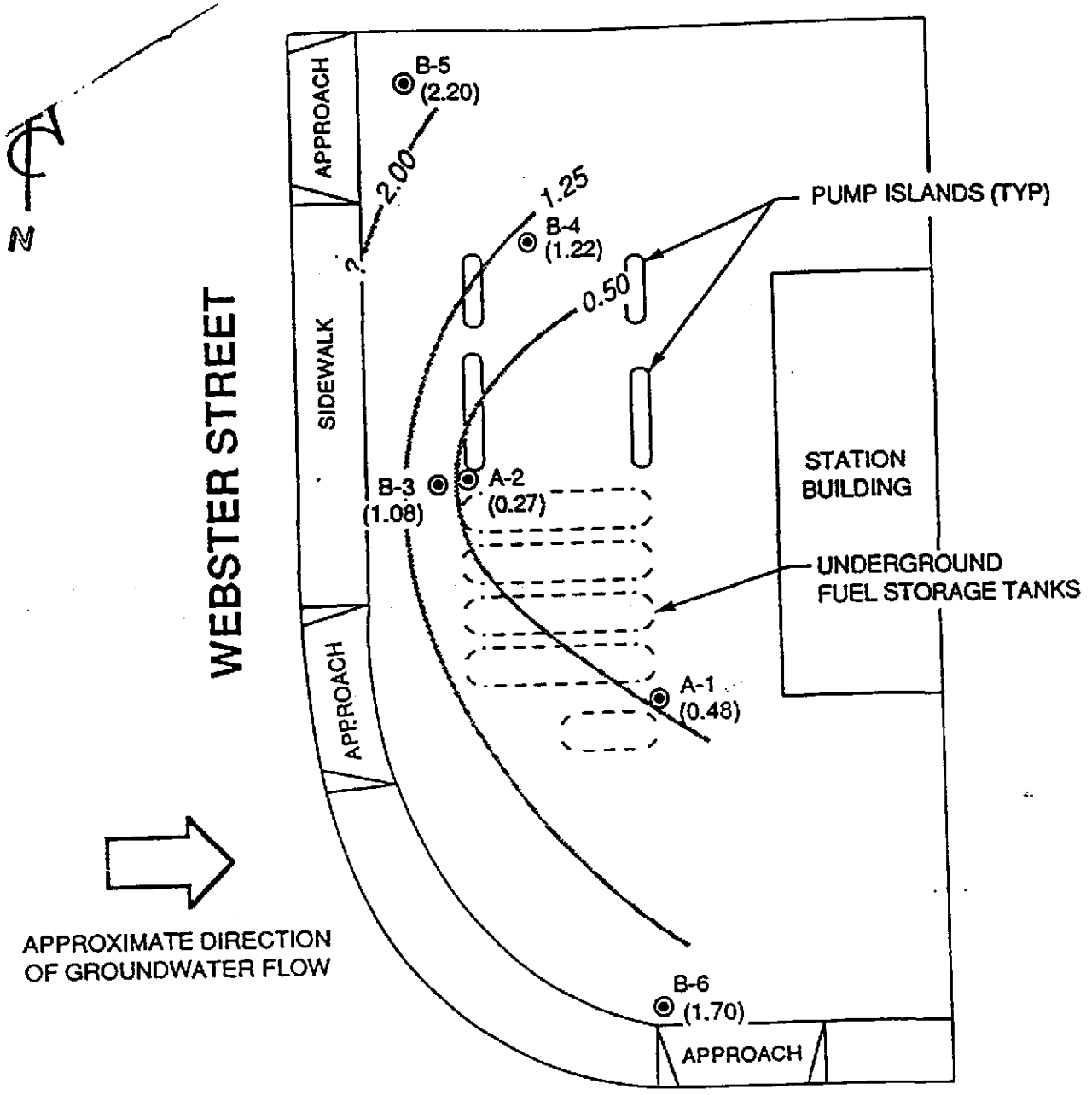
PACIFIC ENVIRONMENTAL GROUP, INC.

CHEVRON USA STATION 9-0290
1802 Webster Street at Buena Vista Avenue
Alameda, California

LIQUID SURFACE ELEVATION CONTOUR MAP

FIGURE: 3

PROJECT: 325-10.01



LEGEND

A-1 ⊙ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

(0.48) LIQUID SURFACE ELEVATION IN FEET - MSL, 9-20-91

0.50 LIQUID SURFACE ELEVATION CONTOUR IN FEET - MSL, 9-20-91

SCALE

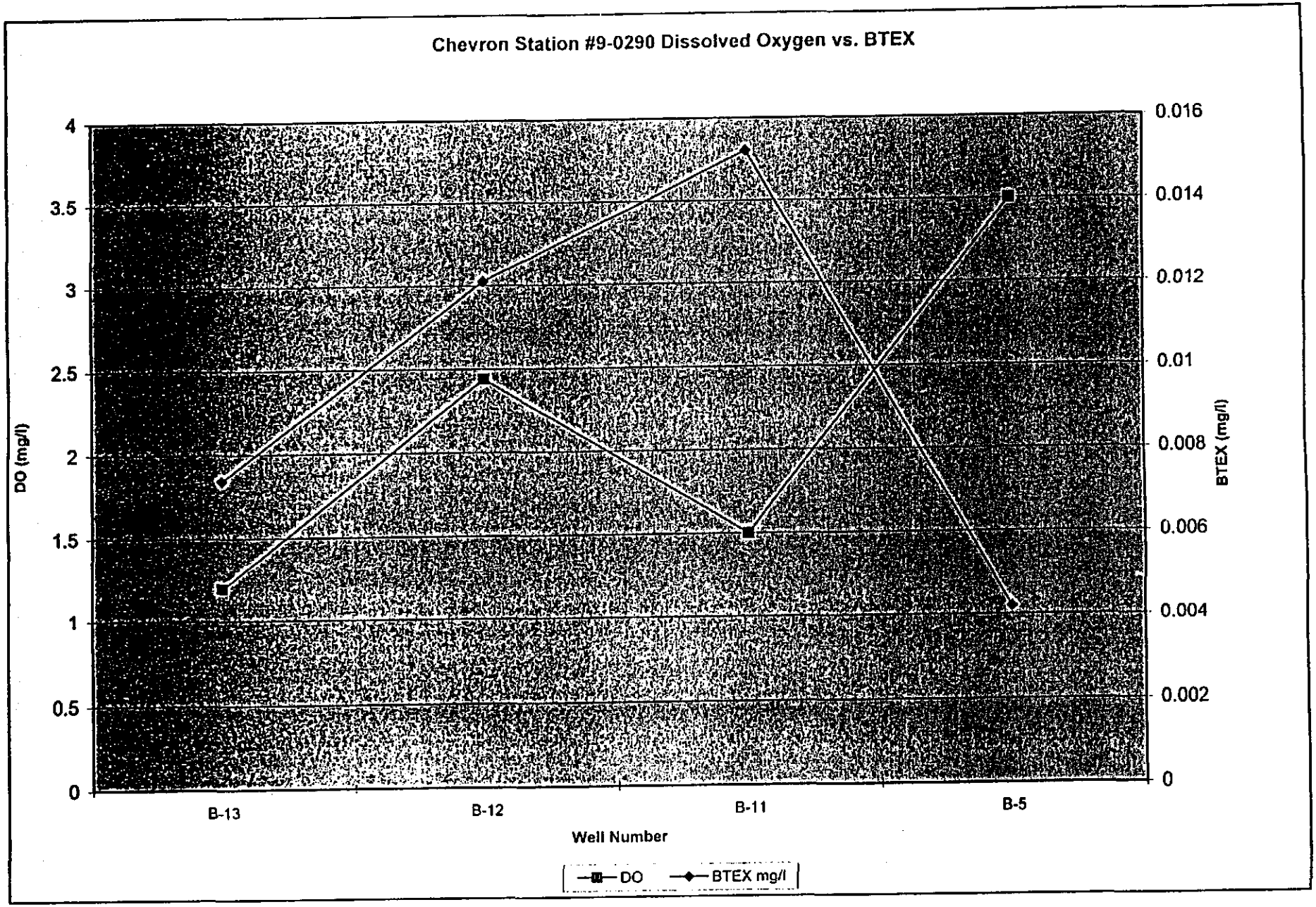
0 30 60 FEET

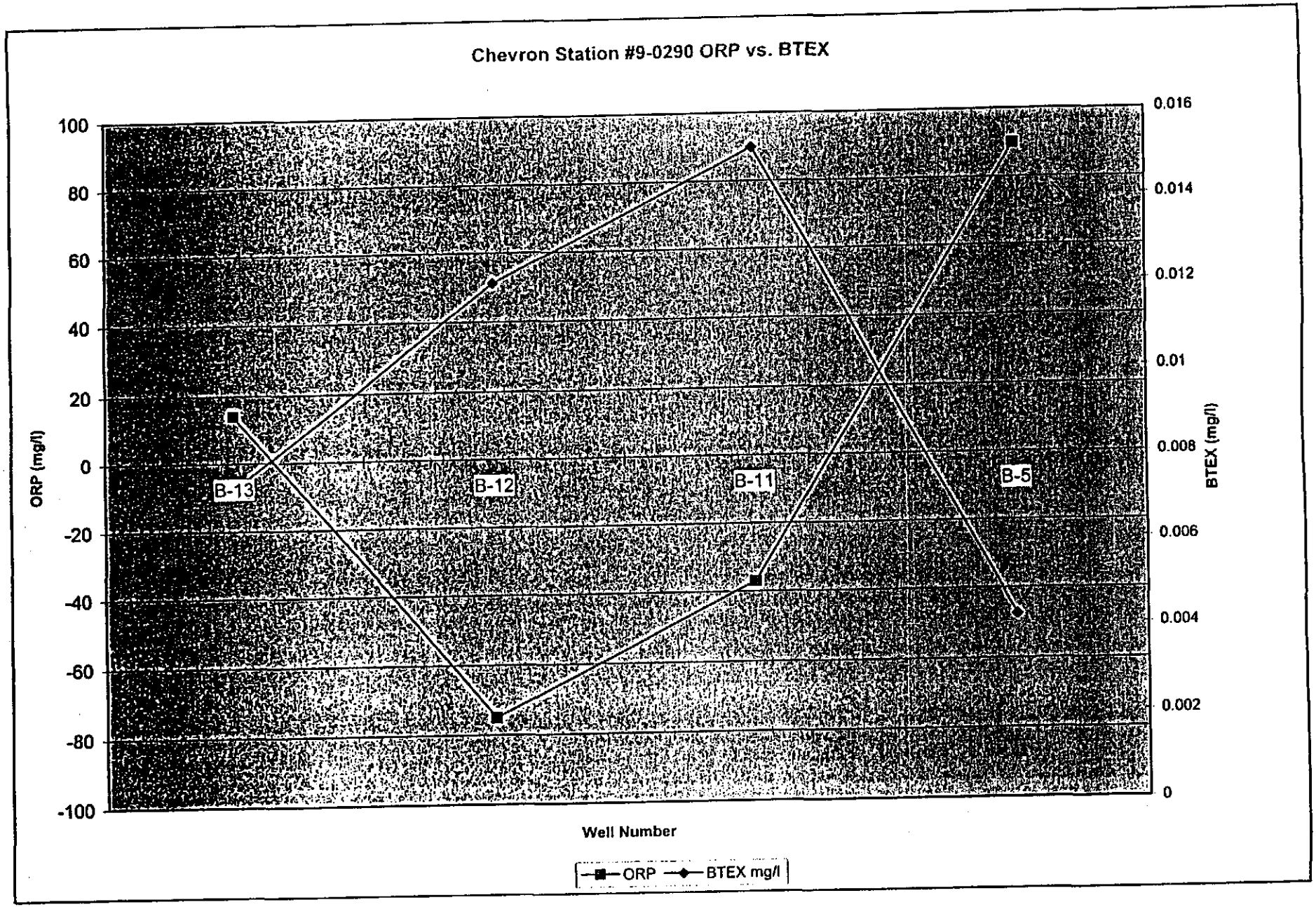
PACIFIC ENVIRONMENTAL GROUP, INC.	CHEVRON USA STATION 9-0290 1802 Webster Street at Buena Vista Avenue Alameda, California	FIGURE: 2 PROJECT: 325-10.01
	LIQUID SURFACE ELEVATION CONTOUR MAP	

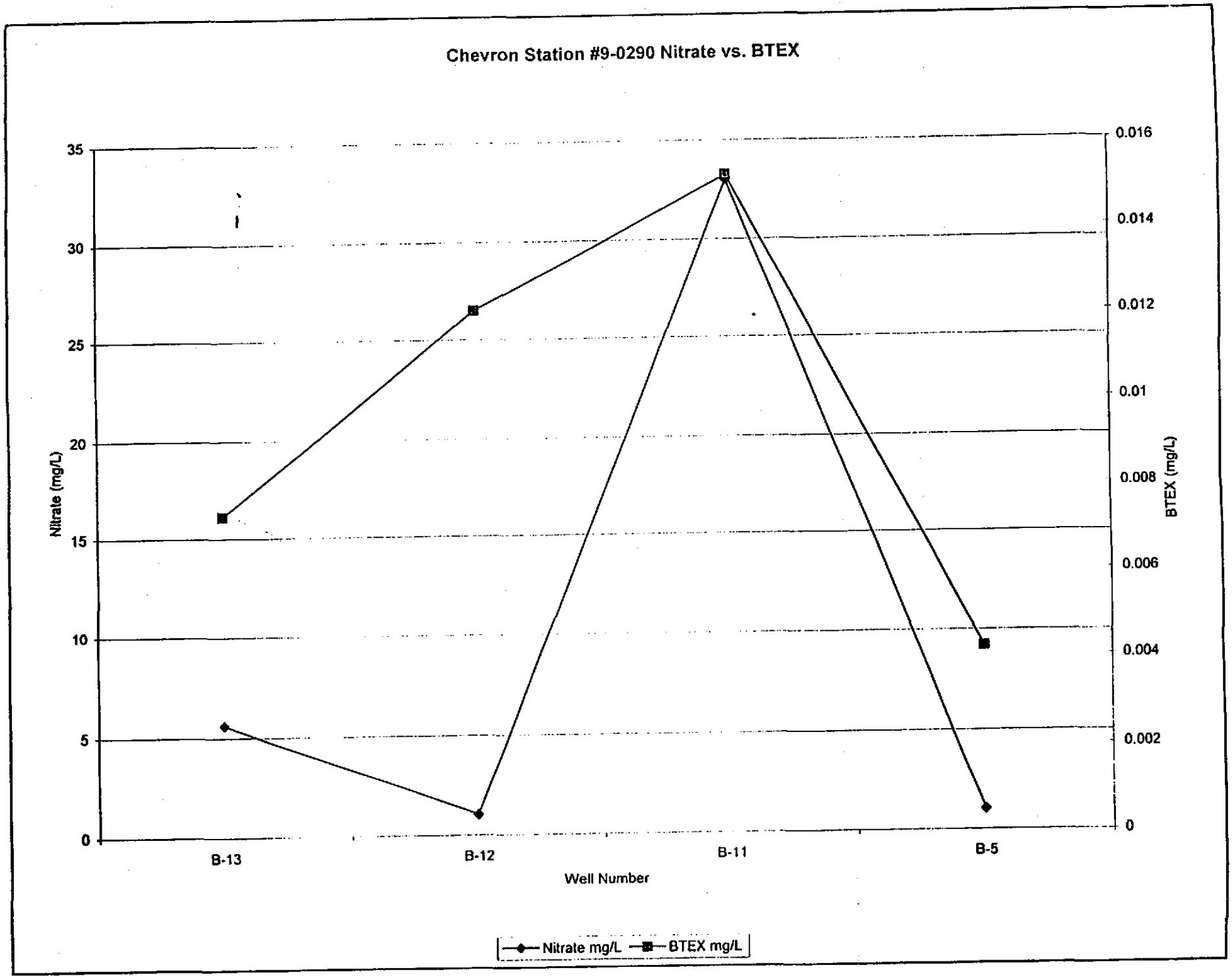
01/02/92

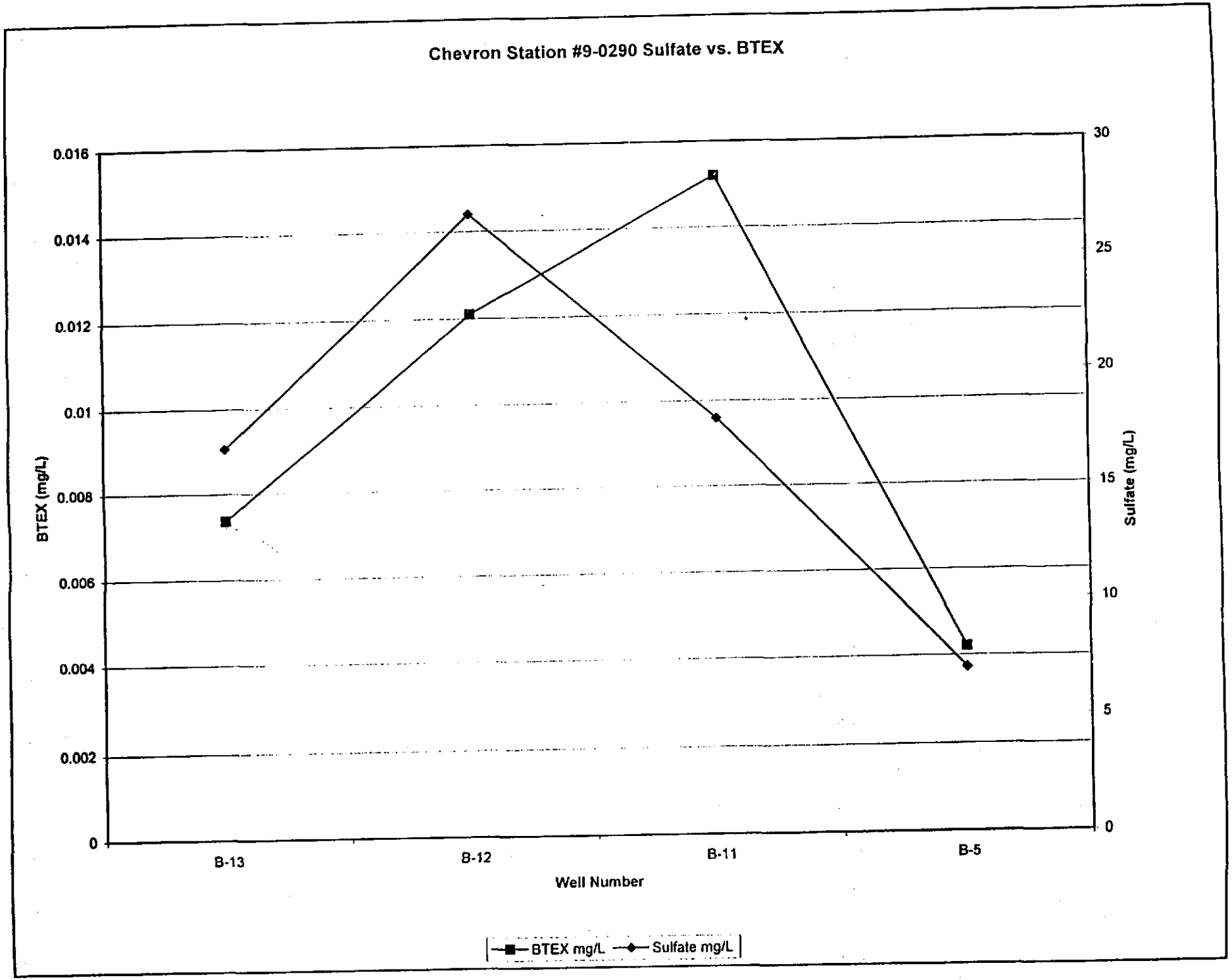
APPENDIX D

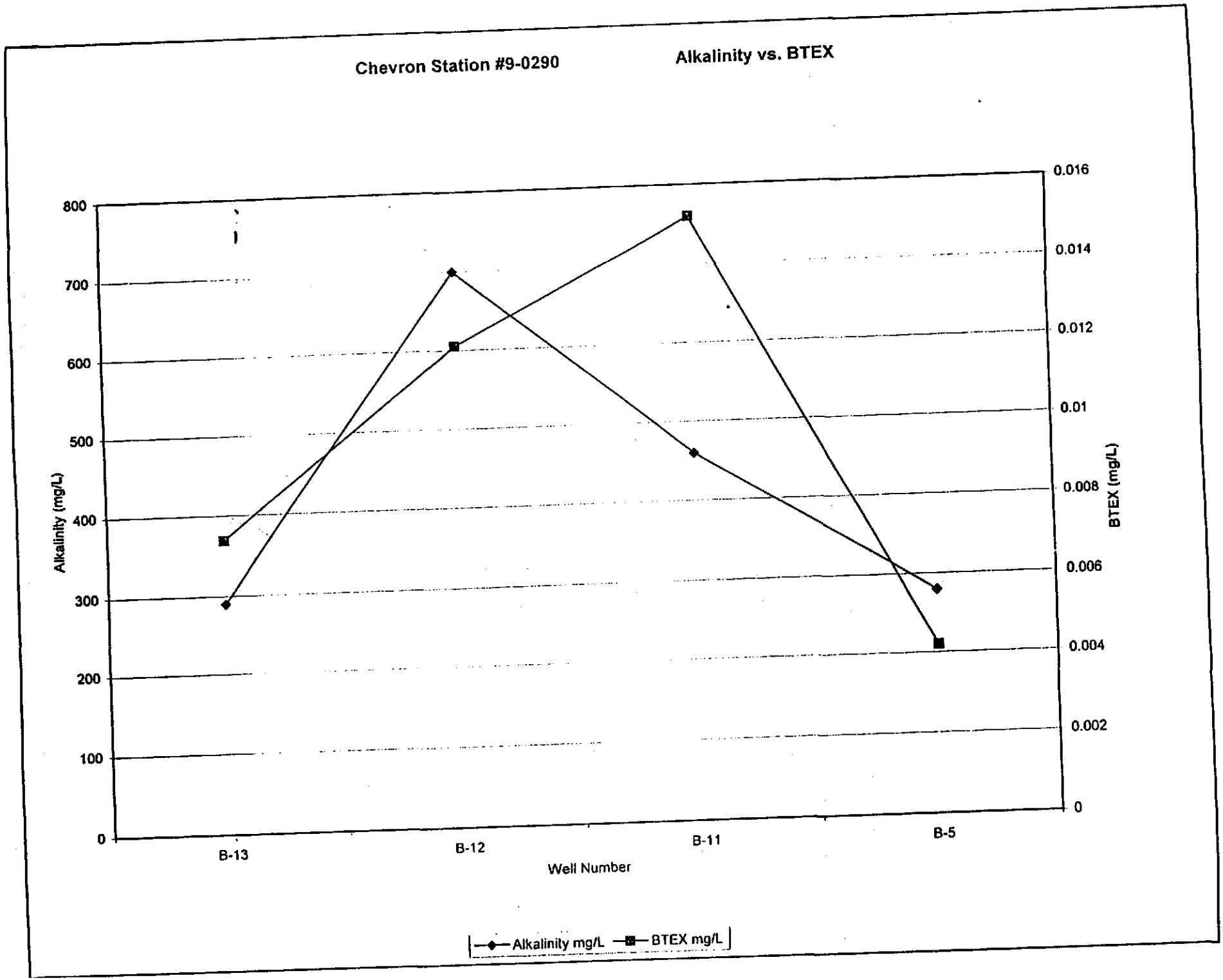
BIO-PARAMETER GRAPHS


Chevron Station #9-0290 Dissolved Oxygen vs. BTEX
DO (mg/l)
BTEX (mg/l)
4
3.5
3
2.5
2
1.5
1
0.5
0
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
B-13
B-12
B-11
B-5
Well Number
DO
BTEX mg/l


Chevron Station #9-0290 ORP vs. BTEX
ORP (mg/l)
BTEX (mg/l)
100
80
60
40
20
0
-20
-40
-60
-80
-100
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
B-13
B-12
B-11
B-5
Well Number
ORP
BTEX mg/l

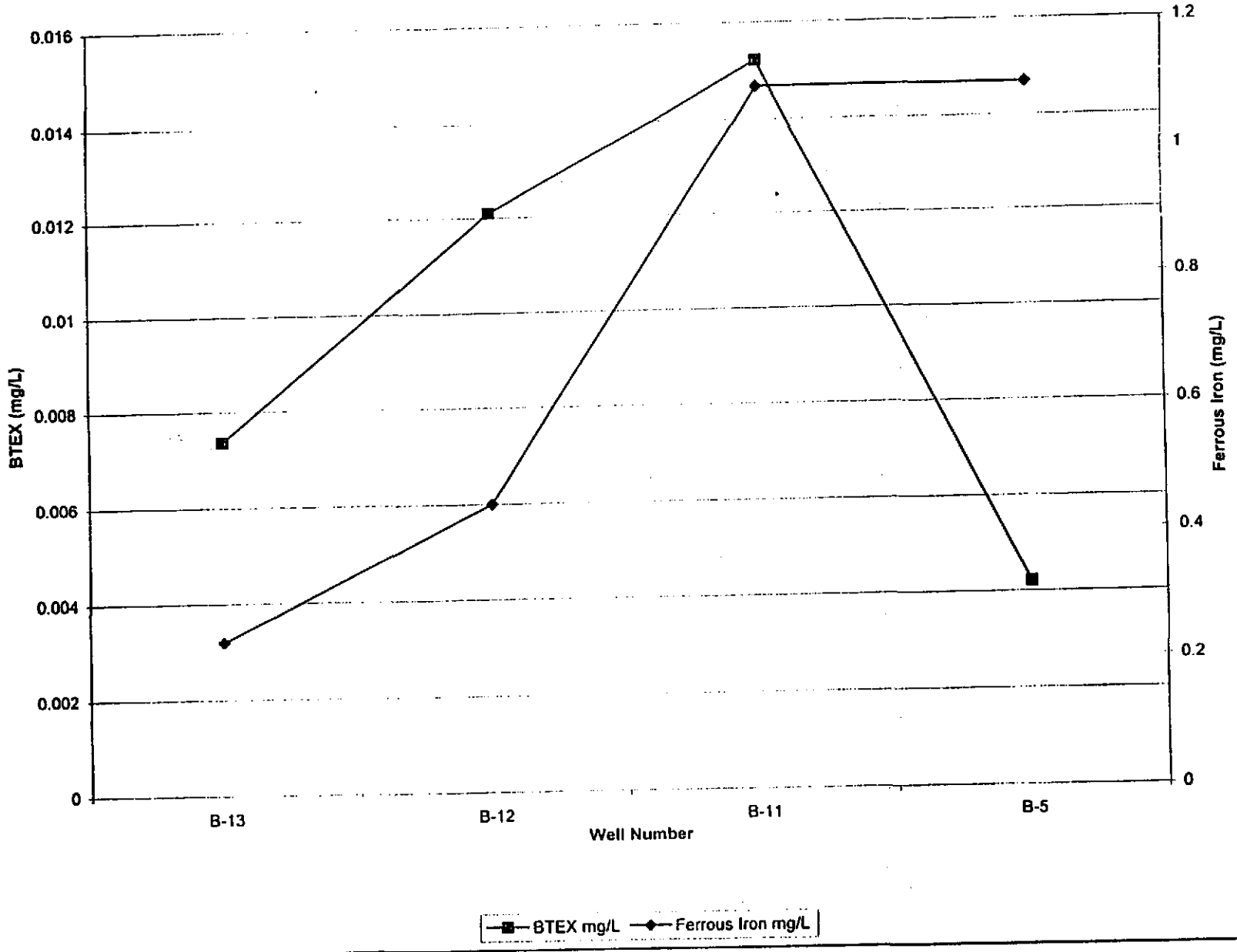

Chevron Station #9-0290 Nitrate vs. BTEX
Nitrate (mg/L)
BTEX (mg/L)
35
30
25
20
15
10
5
0
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
B-13
B-12
B-11
B-5
Well Number
Nitrate mg/L
BTEX mg/L


Chevron Station #9-0290 Sulfate vs. BTEX
BTEX (mg/L)
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
Sulfate (mg/L)
30
25
20
15
10
5
0
B-13
B-12
B-11
B-5
Well Number
BTEX mg/L
Sulfate mg/L


Chevron Station #9-0290
Alkalinity vs. BTEX
Alkalinity (mg/L)
BTEX (mg/L)
800
700
600
500
400
300
200
100
0
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
B-13
B-12
B-11
B-5
Well Number
Alkalinity mg/L
BTEX mg/L

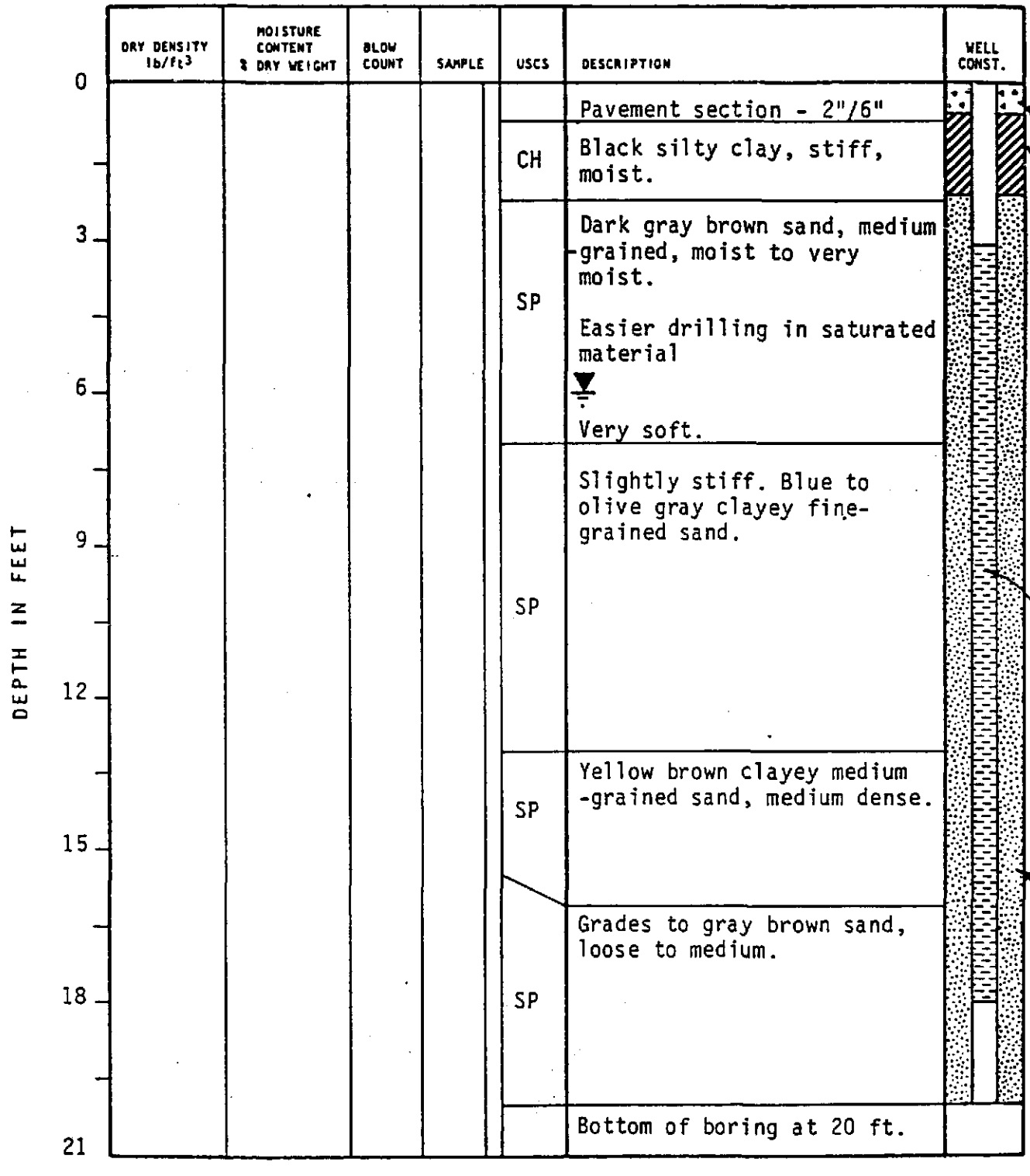
Chevron Station #90290

Ferrous Iron vs. BTEX



APPENDIX E

CROSS SECTIONS AND BORING LOGS



J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: FK DATE: 1/28/82

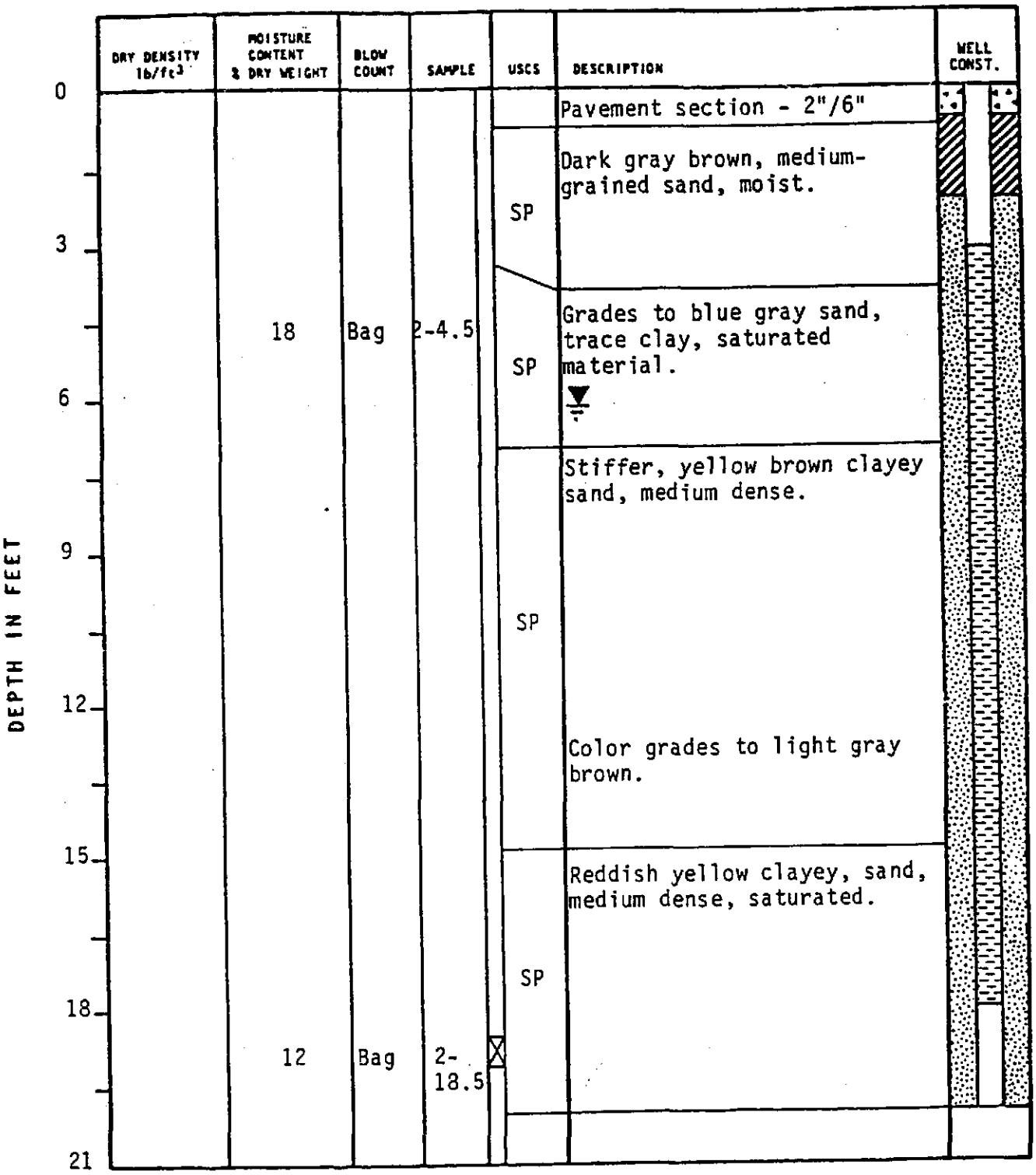
CHECKED BY: CRN DATE: 1/28/82

IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-1

PROJECT NO. B-1163-1

PLATE 2



J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: FK DATE: 1/28/82

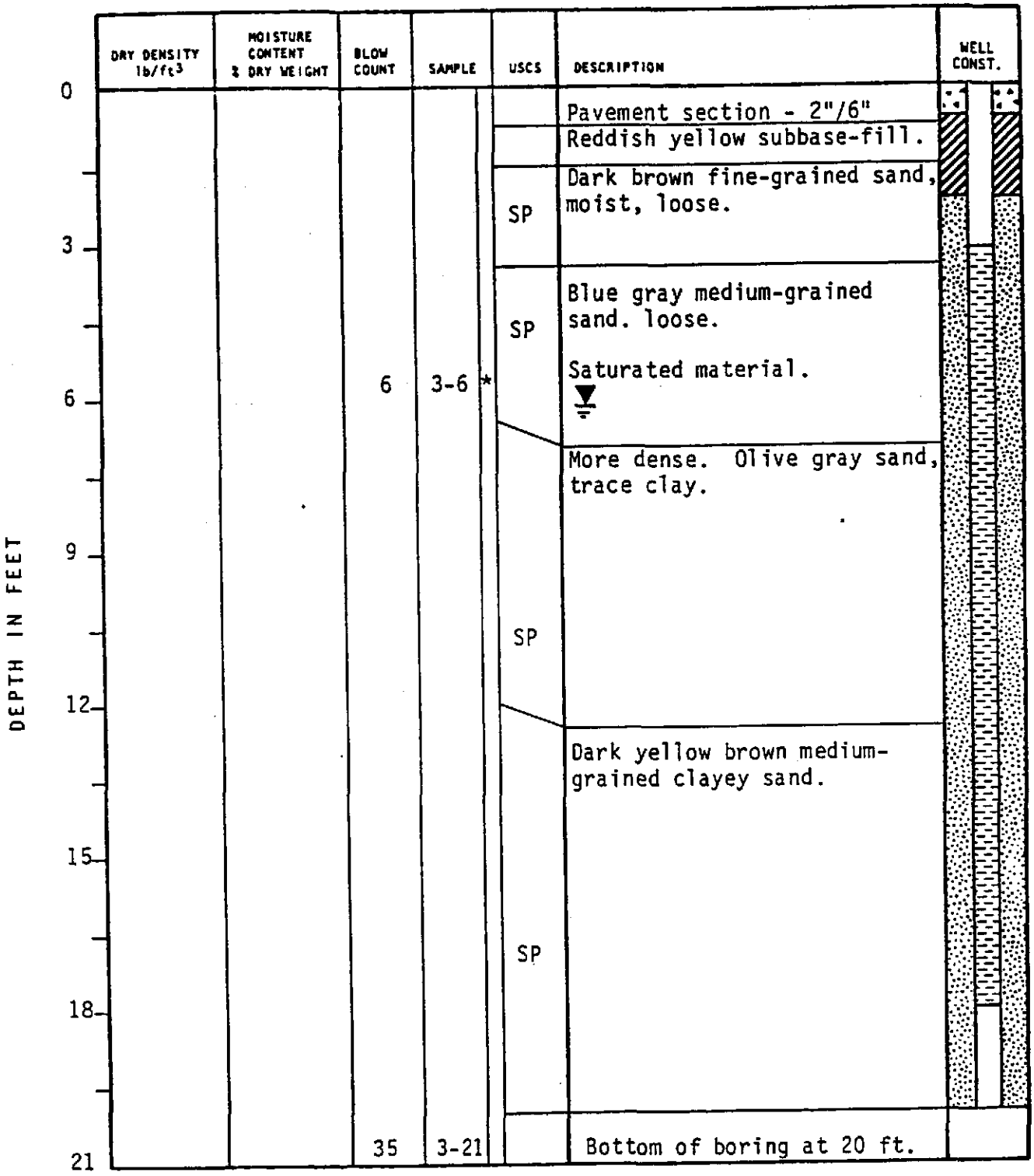
CHECKED BY: CRN DATE: 1/28/82

IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-2

PROJECT NO. B-1163-1

PLATE 3



J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: FK DATE: 1/28/82

CHECKED BY: CRN DATE: 1/28/82

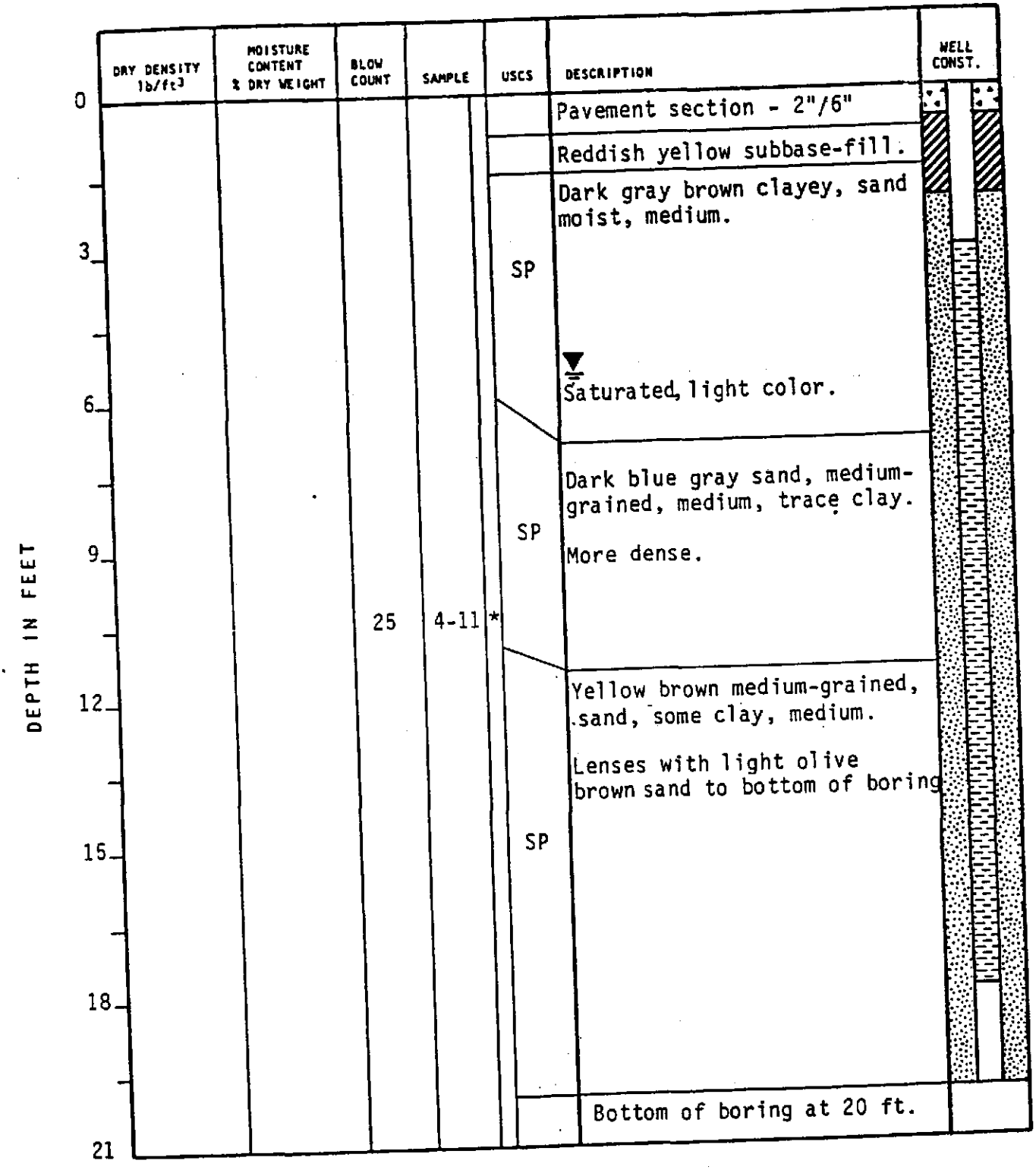
IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-3

PROJECT NO. B-1163-1

PLATE

4



J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: FK DATE: 1/28/82

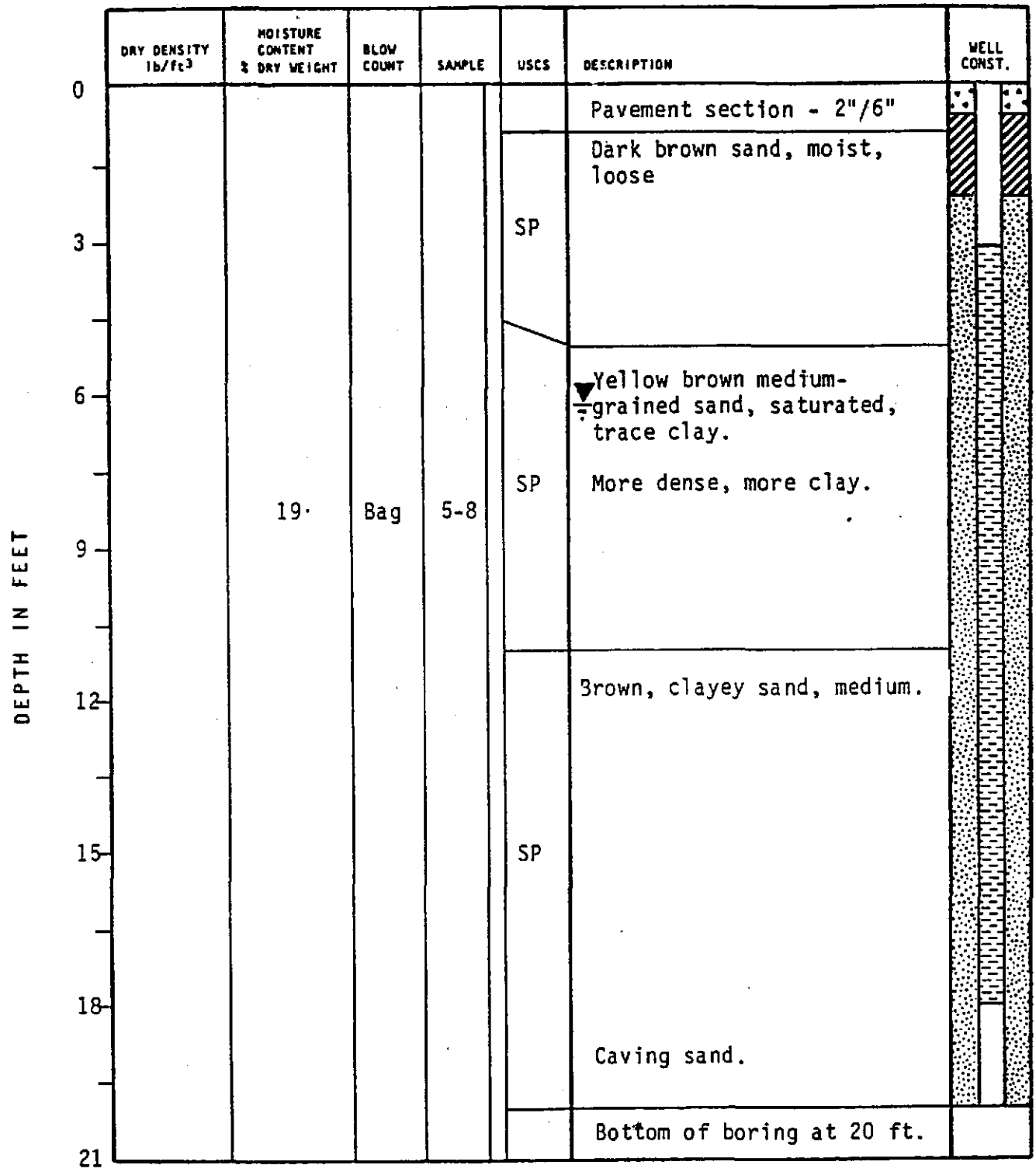
IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-4

PROJECT NO. B-1163-1

PLATE

5



J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: FK DATE: 1/28/82

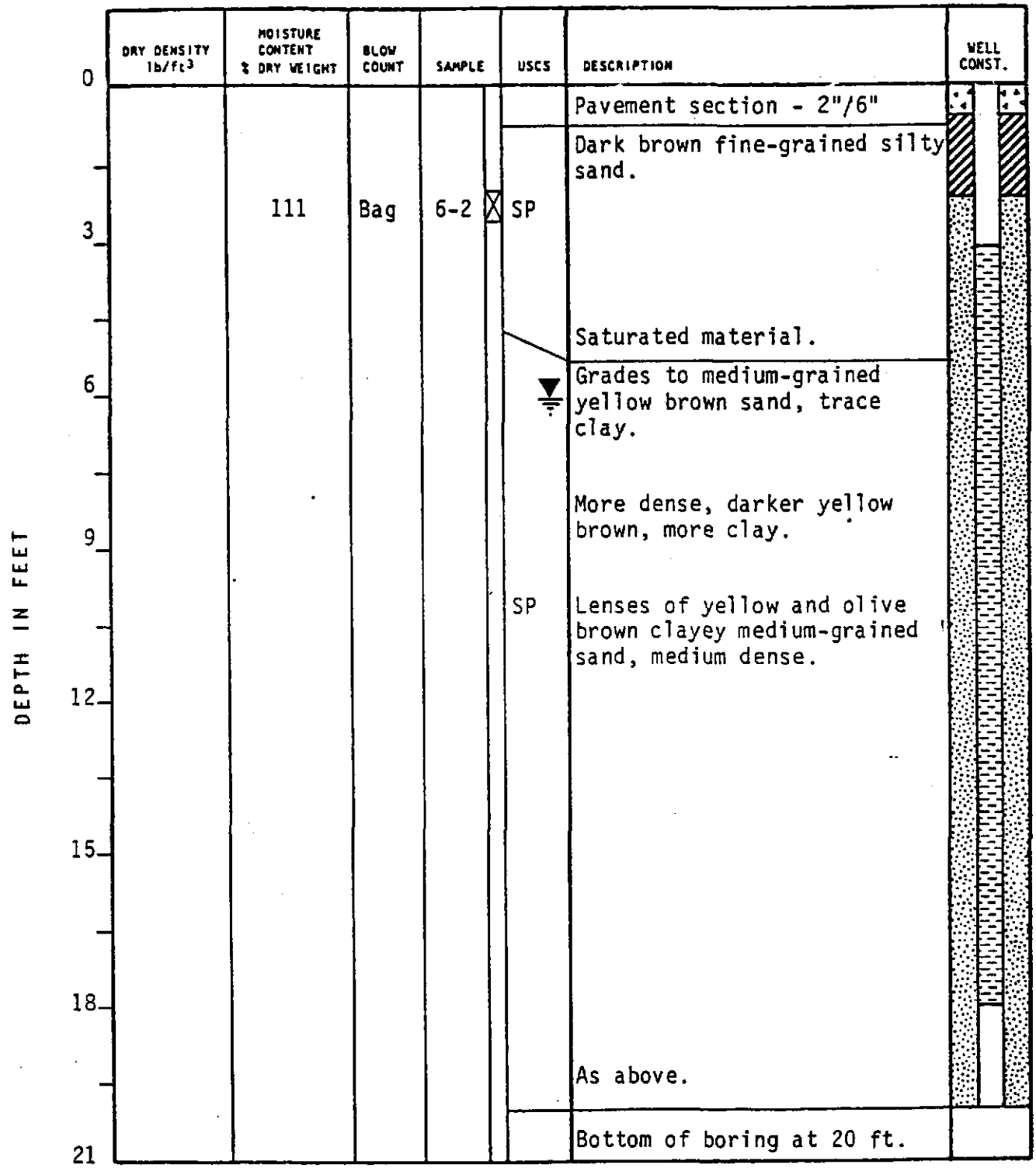
CHECKED BY: CRN DATE: 1/28/82

IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-5

PROJECT NO. B-1163-1

PLATE 6



J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: FK DATE: 1/28/82

CHECKED BY: CRN DATE: 1/28/82

IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-6

PROJECT NO. B-1163-1

PLATE 7

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well B-7

Project CHV/1802 Webster St. Owner Chevron
Location Alameda, CA Project No. 020202976 Date drilled 3/29/93
Surface Elev. N/A ft. Total Hole Depth 15.5 ft. Diameter 8 in.
Top of Casing N/A ft. Water Level Initial 5 ft. Static N/A ft.
Screen: Dia 2 in. Length 12 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 3 ft. Type PVC SCH 40
Filter Pack Material #3 sand Rig/Core Type B-61/Mod. Cal. Split Spoon
Drilling Company Kvilhaug Drilling Method Hollow Stem Auger Permit #
Driller Rod Furlow Log By S.C. Hurley
Checked By David Kleesattel License No. RG# 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

The well was set at approximately 15 feet below grade. The decon water and the soil cuttings were placed in labled 55-gallon drums. The drums were left on site until they could be analyzed and disposed of properly.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						ASPHALT
2					ML	SILT, dark brown, about 70% silt, about 30% fine sand (moist, no hydrocarbon odor)
4			8			Silty SAND, tan, about 60% fine sand, about 30% silt, about 10% clay (wet, no hydrocarbon odor).
6		1.7	5 10 12			▽ 3/29/93
8					SM	
10		1.7	10 38 48 50			
12						
14			25			
16		2.5	15 25 50			End of boring.
18						
20						
22						
24						

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well B-8

Project CHV/1802 Webster St. Owner Chevron
Location Alameda, CA Project No. 020202976 Date drilled 3/29/93
Surface Elev. N/A ft. Total Hole Depth 15.5 ft. Diameter 8 in.
Top of Casing N/A ft. Water Level Initial 5 ft. Static N/A ft.
Screen: Dia 2 in. Length 12 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 3 ft. Type PVC SCH 40
Filter Pack Material #3 sand Rig/Core Type B-61/Mod. Cal. Split Spoon
Drilling Company Kvilhaug Drilling Method Hollow Stem Auger Permit #
Driller Rod Furlow Log By S.C. Hurley
Checked By David Kleesattel License No. RG# 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

The well was set at approximately 15 feet below grade. The decon water and the soil cuttings were placed in labled 55-gallon drums. The drums were left on site until they could be analyzed and disposed of properly.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						Road Base
2						Gravel
4			9			Silty SAND, tan, about 60% fine sand, about 30% silt, about 10% clay (wet, no hydrocarbon odor).
6		2.5	5			3/29/93
8			40		SM	
10		2.5	50 10			
12						
14			20 30			
16		1.7	45 15			End of boring.
18						
20						
22						
24						

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well B-9

Project CHV/1802 Webster St. Owner Chevron
Location Alameda, CA Project No. 020202976 Date drilled 3/30/93
Surface Elev. N/A ft. Total Hole Depth 15.5 ft. Diameter 8 in.
Top of Casing N/A ft. Water Level Initial 5 ft. Static N/A ft.
Screen: Dia 2 in. Length 12 ft. Type/Size 0.020 in.
Casing: Dia 2 in. Length 3 ft. Type PVC SCH 40
Filter Pack Material #3 sand Rig/Core Type B-61/Mod. Cal. Split Spoon
Drilling Company Kvilhaug Drilling Method Hollow Stem Auger Permit #
Driller Rod Furlow Log By S.C. Hurley
Checked By David Kleesattel License No. RG# 5136 David Kleesattel

See Site Map For Boring Location

COMMENTS:

The well was set at approximately 15 feet below grade. The decon water and the soil cuttings were placed in labled 55-gallon drums. The drums were left on site until they could be analyzed and disposed of properly.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2						
0						ASPHALT
						Road Base
2					SM	Silty SAND, tan, about 60% fine sand, about 25% silt, about 15% clay (moist, no hydrocarbon odor).
4			18 20 22			SAND, tan, about 75% fine sand, about 20% silt, about 5% clay (wet, no hydrocarbon odor).
6		2.5	5			3/30/93
8					SP	
10		0.8	22 44 50 10			
12						
14			16 38 45			
16		0	15			End of boring.
18						
20						
22						
24						

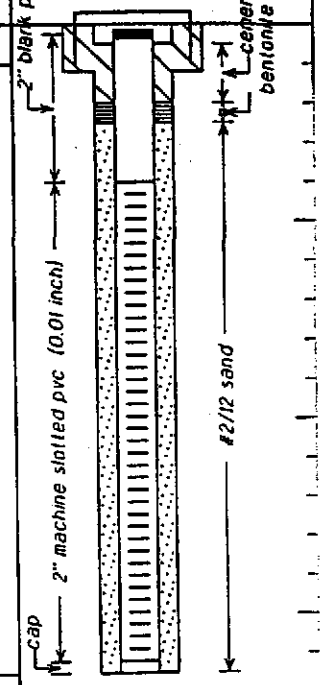
Gettler-Ryan, Inc.

Log of Boring B-10

PROJECT: *Chevron SS# 9-0290*	LOCATION: *1802 Webster Street, Alameda, CA*
G-R PROJECT NO. : *5280.01*	SURFACE ELEVATION: *11.42 feet MSL*
DATE STARTED: *10/31/95*	WL (ft. bgs): *7.0* DATE: *10/31/95* TIME: *15:05*
DATE FINISHED: *10/31/95*	WL (ft. bgs): *7.1* DATE: *10/31/95* TIME: *16:10*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *16.5 Feet*
DRILLING COMPANY: *Bay Area Exploration, Inc.*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							PAVEMENT – asphalt over baserock.
						SP	SAND (SP) – very dark grayish brown (10YR 3/2), damp, loose; 100% fine sand.
5							Color change to light olive brown (2.5Y 5/4), becomes moist; 100% fine to medium sand.
	179	3	B10-6				Color change to dark greenish gray (5GY 4/1), hydrocarbon odor.
	172	21	B10-7				▽ Saturated, medium dense at 7 feet.
							95% fine to medium sand, 5% clay at 8 feet.
10	2.8	30	B10-11				Color change to olive (5Y 5/3) mottled gray (5Y 5/1) and light olive brown (2.5Y 5/6).
15	0	18	B10-16				Color change to light olive brown (2.5Y 5/6).
							Bottom of boring at 16.5 feet, 10/31/95.
20							(* = converted to equivalent standard penetration blows/ft.)
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: *5280.01*

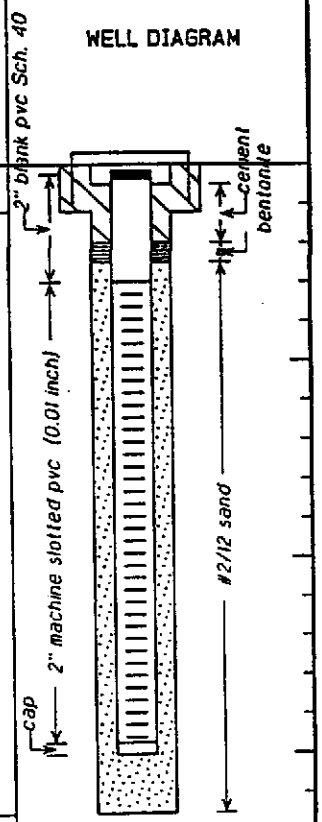
Gettler-Ryan, Inc.

Log of Boring B-11

PROJECT: *Chevron SS# 9-0290*	LOCATION: *1802 Webster Street, Alameda, CA*
G-R PROJECT NO. : *5280.01*	SURFACE ELEVATION: *11.98 feet MSL*
DATE STARTED: *10/31/95*	WL (ft. bgs): *1.0* DATE: *10/31/95* TIME: *11:40*
DATE FINISHED: *10/31/95*	WL (ft. bgs): *4.5* DATE: *10/31/95* TIME: *13:40*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *16.5 Feet*
DRILLING COMPANY: *Bay Area Exploration, Inc.*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							PAVEMENT – concrete over pea gravel.
	110	NA	B11-2			SP	SAND (SP) – black (2.5Y 2/0), saturated, loose; 100% fine sand; hydrocarbon odor.
5	54	4	B11-5				Color change to dark greenish gray (5GY 4/1); 95% fine to medium sand, 5% clay.
10	31	22	B11-11				Color change to dark olive (5Y 4/3) mottled gray (5Y 5/1); becomes medium dense; 100% fine to medium sand; roots.
15	5.9	22	B11-16				Color change to light olive brown (2.5Y 5/6) mottled olive (5Y 5/4).
							Bottom of boring at 16.5 feet, 10/31/95.
20							(* = converted to equivalent standard penetration blows/ft.)
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: *5280.01*

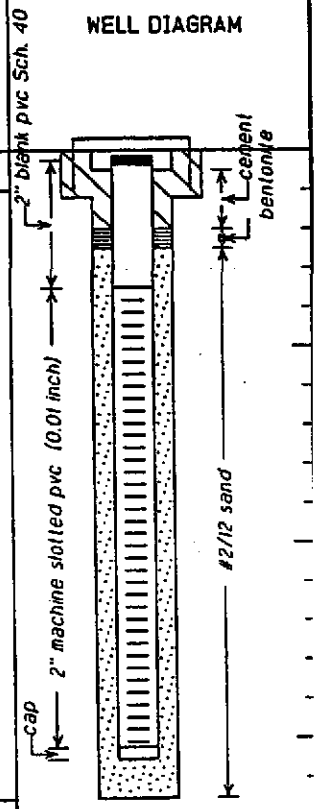
Gettler-Ryan, Inc.

Log of Boring B-12

PROJECT: *Chevron SS# 9-0290*	LOCATION: *1802 Webster Street, Alameda, CA*
G-R PROJECT NO.: *5280.01*	SURFACE ELEVATION: *11.16 feet MSL*
DATE STARTED: *10/31/95*	WL (ft. bgs): *6.4* DATE: *10/31/95* TIME: *14:10*
DATE FINISHED: *10/31/95*	WL (ft. bgs): *6.4* DATE: *10/31/95* TIME: *15:00*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *16.5 Feet*
DRILLING COMPANY: *Bay Area Exploration, Inc.*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							PAVEMENT - concrete over pea gravel.
						SP	SAND (SP) - very dark grayish brown (10YR 3/2), damp, loose; 100% fine sand.
							Color change to dark yellowish brown (10YR 4/4) at 4 feet.
5	240	7	B12-8				Color change to dark greenish gray (5GY 4/1; hydrocarbon odor.
							Saturated at 6.4 feet.
10	12	24	B12-11				Color change to grayish brown (2.5Y 5/2) mottled dark yellowish brown (10YR 4/6) and gray (N 5/0); 95% fine to medium sand 5% clay.
15	7.1	25	B12-16				Color change to light olive brown (2.5Y 5/4) mottled gray (N5/0).
							Bottom of boring at 16.5 feet, 10/31/95.
20							(* = converted to equivalent standard penetration blows/ft.)
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: *5280.01*

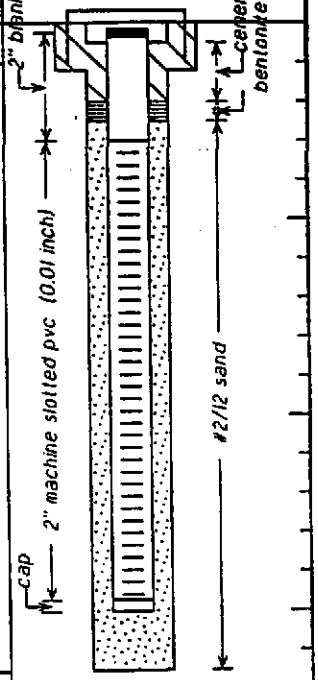
Gettler-Ryan, Inc.

Log of Boring B-13

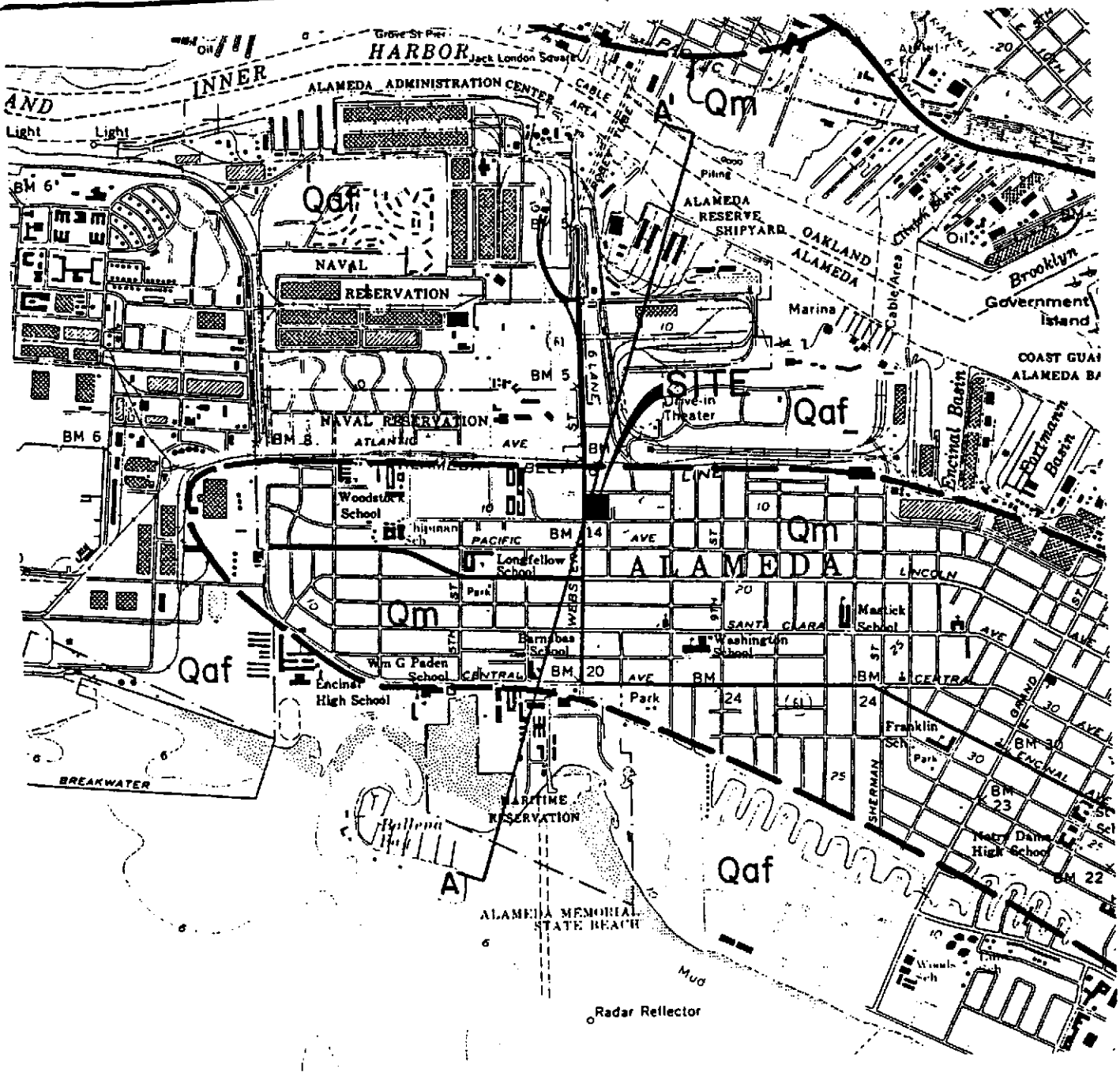
PROJECT: *Chevron SS# 9-0290*	LOCATION: *1802 Webster Street, Alameda, CA*
G-R PROJECT NO.: *5280.01*	SURFACE ELEVATION: *11.17 feet MSL*
DATE STARTED: *10/31/95*	WL (ft. bgs): *6.5* DATE: *10/31/95* TIME: *9:55*
DATE FINISHED: *10/31/95*	WL (ft. bgs): *6.5* DATE: *10/31/95* TIME: *10:35*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *16.5 Feet*
DRILLING COMPANY: *Bay Area Exploration, Inc.*	GEOLOGIST: *B. Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							PAVEMENT - asphalt over baserock.
						SP	SAND (SP) - very dark grayish brown (10YR 3/2), damp, loose; 100% fine sand.
5	2.8	5	B13-6				Color change to dark yellowish brown (10YR 4/4), becomes moist, medium dense.
	238	15	B13-7				Color change to dark greenish gray (5GY 4/1); hydrocarbon odor; 95% fine sand, 5% clay.
							Saturated at 7 feet.
10	12.7	22	B13-11				100% fine to medium sand.
15	3.4	23	B13-16				Color change to light olive brown (2.5Y 5/6).
							Bottom of boring at 16.5 feet, 10/31/95.
20							(* = converted to equivalent standard penetration blows/ft.)
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: *5280.01*



0 1000 2000 3000 4000 5000

FEET

REFERENCE:
"AREAL AND ENGINEERING GEOLOGY OF THE OAKLAND QUADRANGLE" D.H. RADBRUCH. 1969, U.S.G.S. MAP I-239.

DATUM IS MEAN SEA LEVEL

Qaf — ARTIFICIAL FILL-sand, clay or miscellaneous refuse.

Qm — MERRITT SAND-beach or near-shore deposit of slightly clayey, silty sand.

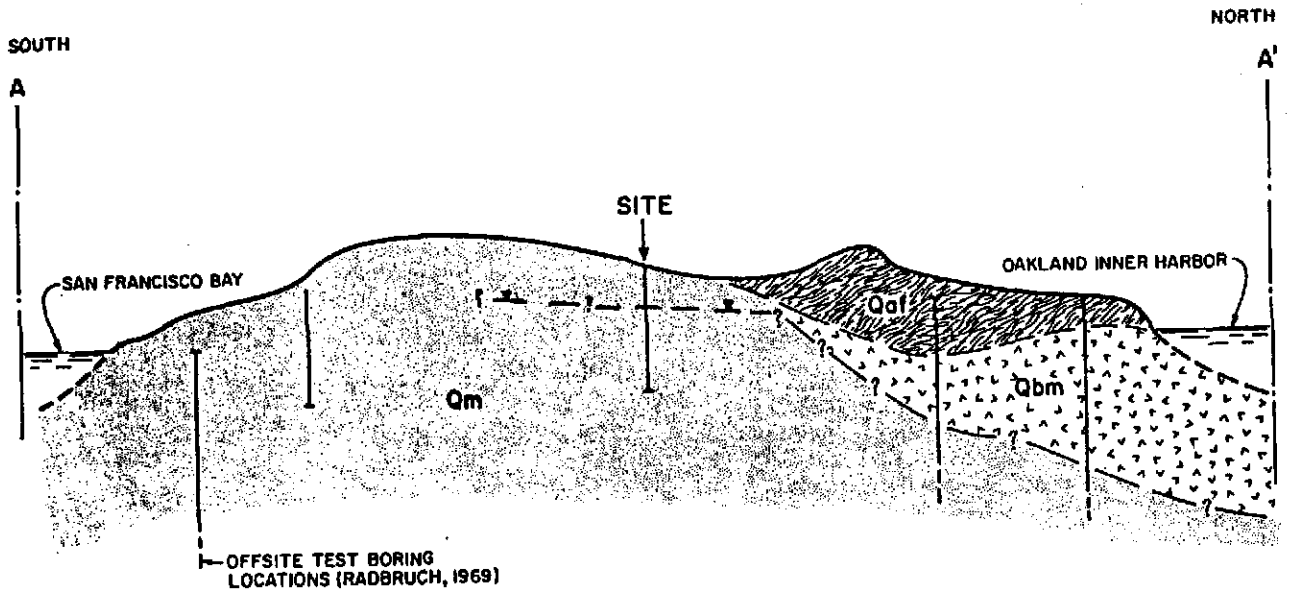
J.H. KLEINFELDER & ASSOCIATES
GEOTECHNICAL CONSULTANTS • MATERIALS TESTING

PREPARED BY: MLS DATE: 1/20/82

IT/CHEVRON
ALAMEDA, CALIFORNIA

SITE AND GEOLOGIC MAP

PLATE 1



NOTES

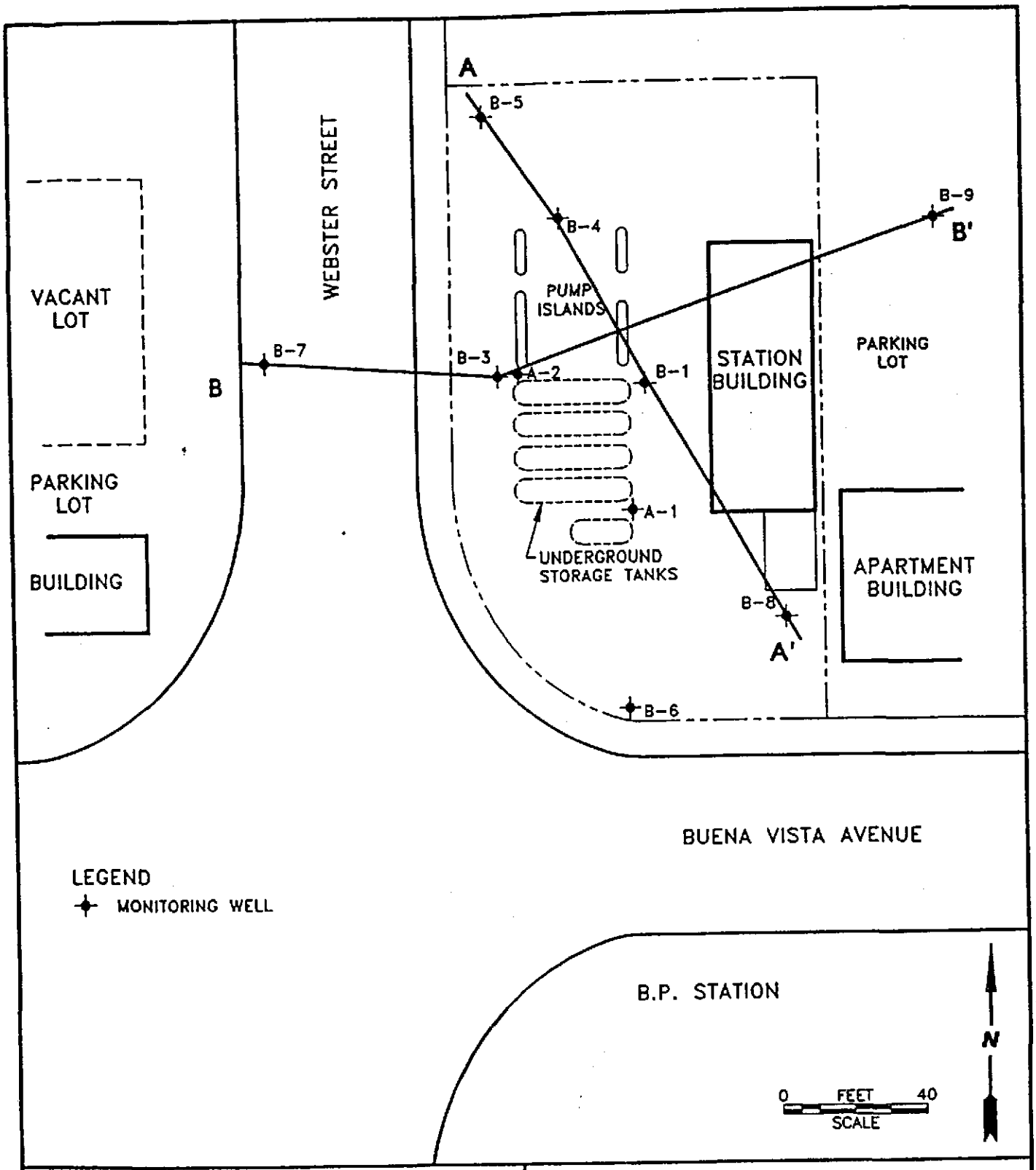
1. SEE PLATE 1 FOR CROSS SECTION LOCATION.
2. DATA ADAPTED FROM RADBRUCH, 1969 AND SITE INVESTIGATION.
3. SEE PLATE 1 AND TEXT FOR DESCRIPTION OF GEOLOGIC UNITS.

0 1000 2000
HORIZONTAL SCALE

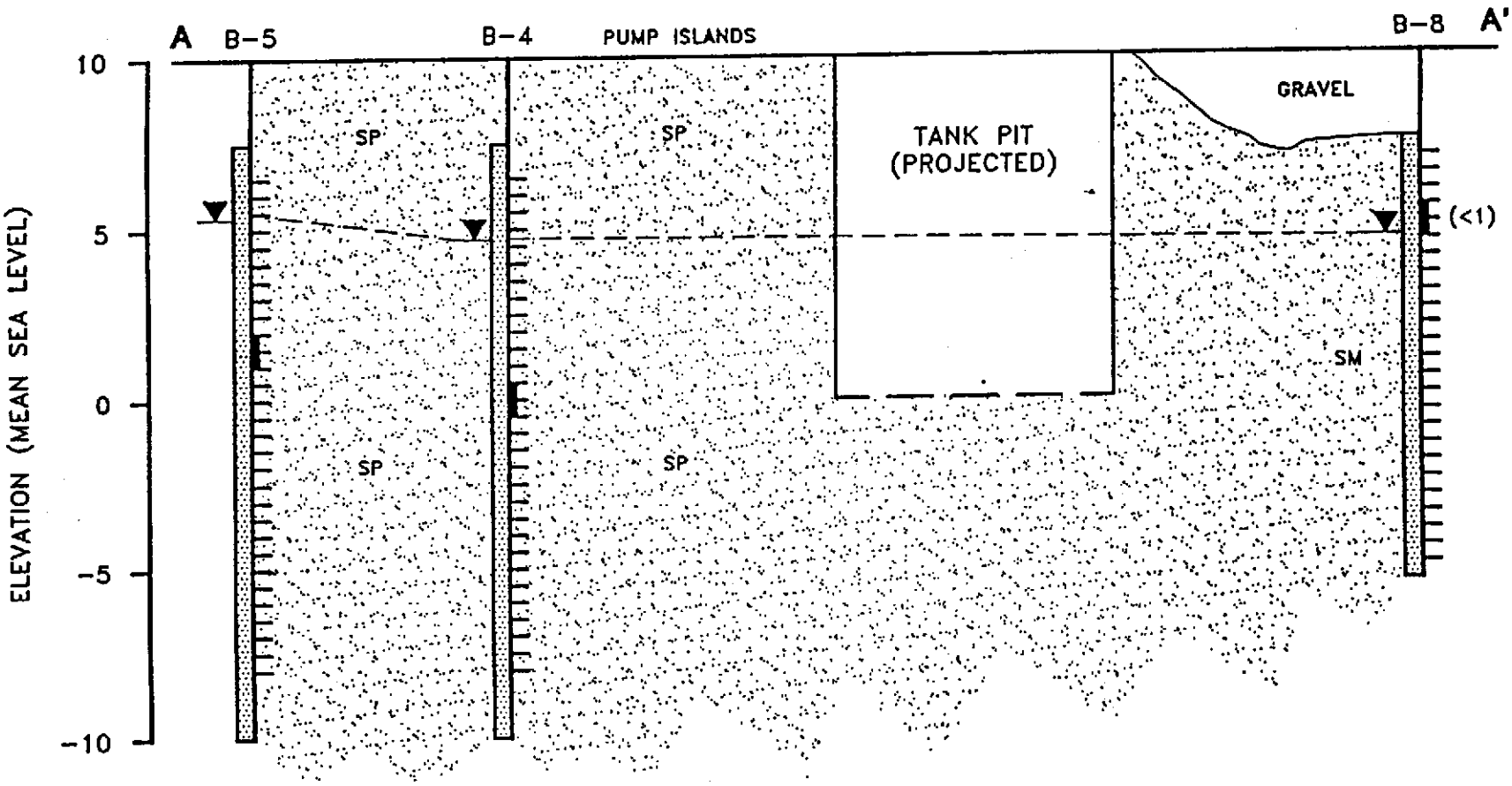
0 10 20 30 40
VERTICAL SCALE

J.H. KLEINFELDER & ASSOCIATES GEOTECHNICAL CONSULTANTS • MATERIALS TESTING	IT/ALAMEDA CHEVRON ALAMEDA, CALIFORNIA GENERALIZED GEOLOGIC CROSS SECTION	PLATE 2
PREPARED BY: FK DATE: 2/5/82 CHECKED BY: DAR DATE: 2/5/82	PROJECT NO. B-1163-2	

ETC.



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				CROSS SECTION LOCATION MAP		
CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-0290				LOCATION: 1802 WEBSTER STREET ALAMEDA, CALIFORNIA	REV. NO.: 0	DATE: 5/14/93
PM: JBS	PE/RG: DRK	DESIGNED: TW	DETAILED: CY	ACAD FILE: SP593/SP1092	PROJECT NO.: 020202974	FIGURE: 3



LEGEND

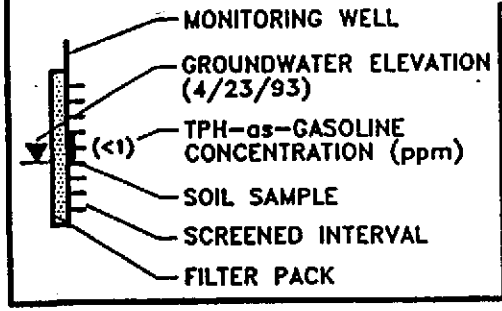
SP POORLY GRADED SAND

SM SILTY SAND

APPROXIMATE GROUNDWATER LEVEL

VIEW LOOKING WEST

0 FEET 25
HORIZ. SCALE

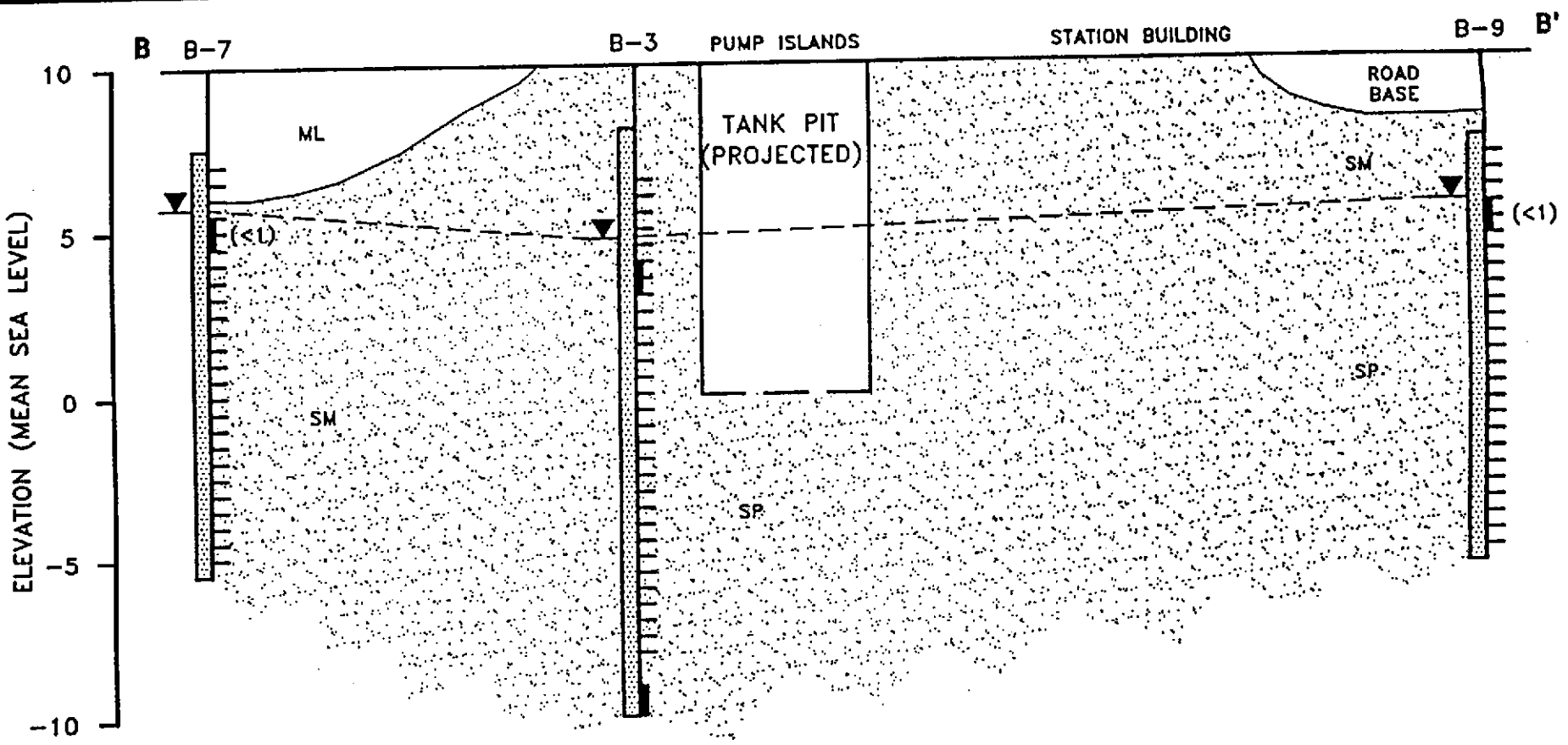


GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY
CONCORD, CA 94520
(510) 671-2387

GENERALIZED GEOLOGIC CROSS SECTION A-A'

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION NO. 9-0290	1802 WEBSTER STREET OAKLAND, CALIFORNIA	0	5/14/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
[illegible]	DRK	CH	CY	XSAA593	020202976	4



GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY
CONCORD, CA 94520
(510) 671-2387

GENERALIZED GEOLOGIC CROSS SECTION B-B'

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION NO. 9-0290	1802 WEBSTER STREET OAKLAND, CALIFORNIA	0	5/14/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
JAW	DRK	CH	CY	XSBB593	020202976	5