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Alameda County
Environmental Health

ConocoPhillips
76 Broadway
Sacramento, California 95818

October 15, 2008

Barbara Jakub
Alameda County Health Agency
1131 Harbor Bay parkway, Suite250
Alameda, California 94502-577

Re: ***Site Conceptual Model (SCM)***
76 Service Station # 3538 RO # 251
411 W MaCarthur Blvd.
Oakland, CA

Dear Ms. Jakub:

I declare under penalty of perjury that to the best of my knowledge the information and/or recommendations contained in the attached report is/are true and correct.

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,

Terry L. Grayson
Site Manager
Risk Management & Remediation

SITE CONCEPTUAL MODEL

FORMER 76 SERVICE STATION NO. 3538

411 W. MAC ARTHUR BOULEVARD

OAKLAND, CALIFORNIA

Prepared for:

ConocoPhillips Company
76 Broadway
Sacramento, CA 95818

Prepared by:

Delta Consultants, Inc.
312 Piercy Road
San Jose, California 95138

November 21, 2008

CERTIFICATION

The following report was prepared under the supervision and direction of the undersigned California Professional Geologist.

DELTA CONSULTANTS, INC.

Debbie Bryan
California Professional Geologist #7745

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1.0 INTRODUCTION

Delta Consultants, Inc. (Delta), on behalf of ConocoPhillips (COP) has prepared this Site Conceptual Model (SCM) for the 76 Service Station No. 3538 site, located at 411 MacArthur Boulevard in Oakland, California (site) (**Figures 1,2**). The SCM provides a working hypothesis regarding the current and future distribution of total petroleum hydrocarbons as gasoline (TPH-G) and methyl tert-butyl ether (MTBE) detected in soil and groundwater beneath the site.

The key elements of the SCM are:

- Site history and description
- Regional hydrogeologic setting
- Nature and extent of the petroleum hydrocarbon source(s)
- Contaminant fate and transport characteristics
- Potential exposure pathways
- Potential receptors

2.0 SITE LOCATION AND DESCRIPTION

The following sections provide a description of the site and surrounding area.

2.1 Site Location

The site is located in the southwest corner of the intersection of MacArthur Blvd., and Webster Street in Oakland, California. **(Figures 1 and 2)**

2.2 Site Description

The subject site (Alameda County Assessor's Parcel # 12-945-46-1) is a former Tosco (76) service station. The site is currently a used car sales lot and is entirely fenced. All petroleum storage and dispensing equipment were removed in September of 1998, during station demolition activities. Six groundwater-monitoring wells are present at and in the site vicinity. The site elevation is approximately 70 feet above mean sea level (MSL).

2.3 Site Owner

The site property was formerly a service station since 1983 when records show the station facility was purchased by the Union Oil Company of California. In 1997 the station was purchased by the Tosco Corporation. The site was sold in 1999 to Arthur Yu and Kevin Ma, 411 W. MacArthur Blvd, Oakland.

3.0 SITE SETTING

The following sections provide a summary of the regional geologic and hydrogeologic setting.

3.1 Regional Geologic Setting

The site is located approximately 2 miles from the San Francisco Bay (**Figure 3**). Gettler-Ryan Inc., in their report dated December 18, 2000 for a nearby site, provided the following description of the regional geologic setting;

> As mapped by E.J. Helley and others (1979), soil in the site vicinity consists of late Pleistocene alluvium consisting of weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand, and gravel. Based on the site topography, the regional groundwater flow in the vicinity of the site is inferred to be toward the southwest.

3.2 Regional Hydrogeologic Setting

The site is located at the eastern edge of the East Bay Plain Groundwater Subbasin (DWR Bulletin 118). The East Bay Plain subbasin aquifer system consists of unconsolidated sediments of Quaternary age. Numerous creeks cross the subbasin capturing runoff from foothills east of the Hayward fault. In the site area, streams discharge to San Francisco Bay. The total depth of domestic wells reportedly ranges from 32 to 525 feet with an average of 206 feet. Total depth of municipal and irrigation wells range from 29 to 630 feet with an average of 191 feet (DWR Bulletin 118). Groundwater flow is typically to the southwest toward San Francisco Bay. Water agencies in the area include East Bay Municipal Utility District (East Bay MUD) and Alameda County Flood Control and Water Conservation District. No municipal wells have been identified within a one-half mile radius of the site.

4.0 NATURE AND EXTENT OF SOURCE

The following sections describe the source(s) of the petroleum hydrocarbons that have been detected in soil and groundwater beneath and adjacent to the site.

4.1 Former USTs

A Union Oil Company of California drawing dated 11-21-89 shows the site's gasoline USTs to be located in the eastern corner of the site, and one waste oil UST located near the southeast corner of the station building (**Appendix A**).. No USTs have existed on the site since 1998.

4.2 UST Removal (1989)

In July of 1989, two gasoline USTs, one 10,000-gallon and one 12,000-gallon, were removed, along with a 550-gallon waste oil UST and all associated piping. The fuel USTs were removed and replaced with two 12,000-gallon USTs. The waste oil UST was not replaced.

No cracks or holes were found in the gasoline USTs, however, four small holes were found in 550-gallon waste oil UST. Soil samples from the fuel UST pit were collected by Kaprealian Engineering Inc., in July 1989. Water was observed in the pit at a depth of 10.5 feet, limiting the depth of soil samples. Samples taken from the sidewalls were collected at a depth of 10 feet below ground surface (bgs). Soil samples were collected at a depth of 8.5 feet bgs in the waste oil UST pit. Samples were also taken from beneath piping trenches to depths of 5 to 10 feet bgs. Soils samples were tested for total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, xylenes and ethylbenzene (BTEX compounds). Samples from the waste oil pit were also tested for total petroleum hydrocarbons as diesel (TPH-D), total oil and grease (TOG).

TPH-G was detected in soil samples taken from the sidewalls of the fuel tank pit at a maximum concentration of 3,100 parts per million (ppm). TOG was detected in the soil sample from the waste oil pit showed a TOG at 36 ppm. All other parameters were found to be in low concentrations or not detected at the laboratory reporting limit (**Appendix B**). Areas of impacted soil were subsequently removed by over-excavation. No confirmation soil data is available.

Four monitoring wells (MW-1 through MW-4, **Figure 2**) were installed following the UST removals. Soil and groundwater analytical data from these wells is contained in **Appendix B** and **Appendix C.** Initial groundwater samples were collected on September 15, 1989. TPH-G was detected only in wells MW-2 and MW-3 at 290 micrograms per liter (ug/l) and 32 ug/l.

4.3 UST REMOVAL (1998)

In 1998, both 12,000-gallon fuel USTs and associated product piping were removed during site demolition. No holes or cracks were found in the two USTs. Confirmation soil sample analytical data is contained in **Appendix B**. Soil samples contained maximum concentrations of TPH-G (360 ug/l)and benzene (1.5ug/l). Methyl tert-butyl ether (MTBE) was not detected (Gettler Ryan, 2002).

4.4 Residual Soils as On-Going Source

The most current on-site soil analytical data is from soil borings for SB-3, SB-4, and SB-5 installed in March 2006 (**Appendix D**). With the exception of soil samples from boring SB-3, TPH-G and BTEX compounds were at or near the detection limit. In SB-3, located adjacent to the fuel USTs, TPH-G, benzene, toluene, ethylbenzene, xylenes and MTBE were found to be 6,100 mg/kg, <9.7 mg/kg, 53 mg/kg, 86 mg/kg, 420 mg/kg and <9.7 mg/kg, respectively. Borings SB-1 and SB-2 were located off-site. Boring logs for SB-1 through SB-5 are contained in **Appendix E.**

Historic groundwater data in **Appendix C,** shows that water samples contained maximum concentrations of TPH-G, benzene, xylenes, ethylbenzene, and MTBE in well MW-3 at 21,000 ug/l (MW-3), 1,300 ug/l (MW-3), 4,300 ug/l (MW-3), 1,200 ug/l (MW-3), 4,800 ug/l respectively, with the latest maxima occurring in 1995. Currently, TPH-G, xylenes and ethylbenzene are not detected in either wells MW-3 or MW-2. Current maximum concentrations of MTBE and benzene are 19 ug/l (MW-3) and 1.8 ug/l (MW-2), respectively.

4.5 Summary

A release of gasoline and waste oil from the site USTs occurred sometime before 1989, when soil samples from the UST excavation pit showed a maximum TPH-G concentration of 3,100 ppm and maximum TOG concentration of 36 ppm. No potential sources of petroleum hydrocarbons remain on site. The only area of potential leaching of contaminants to groundwater is in the area of boring SB-3.

5.0 FATE AND TRANSPORT CHARACTERISTICS

The following sections describe potential contaminant migration pathways for petroleum hydrocarbons and MTBE. Plume migration and contaminant concentration trends are discussed.

5.1 Underground Utility Conduits

The exact location and depth information of utility trenches both on-site and in the site vicinity has not been determined. Based on the documents in Delta files, a survey of nearby utilities for the purpose of a preferential pathway evaluation has not been performed. However, depth to groundwater (average of 19 feet bgs) is below the depth of utility trenches, and no survey is now deemed necessary.

5.2 Soil Migration Pathways

Soils beneath the site area are generally fine-grained and do not provide pathways for rapid spread of contaminants. Soils encountered in the 1989 UST replacement excavation were described as primarily clay and clayey sand (KEI, October 1989) to a depth of 16 to 21 feet bgs. Logs for off-site wells MW-5 and MW-6, installed in November 1992, show primarily clay and clayey sand (TRC, April 2006) (**Appendix E**).

5.3 Hydrogeologic Pathways

Vertical migration of dissolved contaminants beneath the site is hindered by generally fine-grained soil types. Geologic cross-sections are provided as Figures 4 and 5. Groundwater was found seeping into the 1989 UST replacement excavation at a depth of approximately 10.5 feet bgs. Groundwater was first detected in the borings for the three site wells at depths ranging from 19 to 19.5 feet bgs (KEI, October 1989). Wells MW-1 through MW-4 are 29-30 feet deep and are screened from 3.5-5 to 29-30 feet bgs. On September 15, 1989 (first sampling event), static water levels in the wells were not measured. The first recorded depths (April 13, 1993) ranged from 12 (MW-6) to 18 feet bgs (MW-3). Seasonally, depth to groundwater in wells fluctuates approximately 2 to 5 feet. Depth to water in wells over the year typically ranges from approximately 15.5 to 18.5 feet below top of casing in wells MW-1 through MW-5, and from 12 to 18 feet in MW-6. .

The groundwater flow direction beneath the site has historically been primarily to the east, with a more recent strong southwest component. A rose diagram showing groundwater flow direction from 1990 until 2008 (a total of 38 monitoring events) is provided in **Appendix F**. The groundwater gradient at the site has historically been approximately 0.01 feet/foot (ft/ft). Historic groundwater contour maps, including the most recent (September 17, 2008), are also contained in **Appendix F**.

The groundwater flow rate beneath the site can be approximated based on the hydraulic conductivity of the soil, groundwater flow gradient and effective soil porosity. The linear groundwater flow rate or velocity (V) can be calculated from the formula:

$V = (K \times I)/N$

where K = soil coefficient of hydraulic conductivity
I = groundwater gradient
N = effective soil porosity

The predominant soil types beneath the site are clay and clayey sand. The average K for a clay/ clayey sand is estimated in the range of 1×10^{-2} to 1×10^{-3} feet per day (ft/day) and the porosity at 20% (Freeze and Cherry, 1979).

The site hydraulic conductivity has typically been approximately 0.02 ft/ft. Using the above estimated parameters, a groundwater velocity of less than one foot per year is calculated. The flow rate for dissolved petroleum hydrocarbons is typically significantly slower than the groundwater due to physical and chemical interactions with the soil matrix and biological processes.

5.4 Contaminant Migration Model

It appears that a release occurred at some undetermined time from the former site USTs removed in 1989. The former UST pit was partially filled with groundwater, to a level of 10.5 feet bgs. Petroleum hydrocarbons moved very slowly downward by gravity through clay/silty soil until encountering saturated soils at a depth of approximately 19 feet bg. Once contaminants entered the groundwater, they were dissolved and began migrating with the shallow groundwater flow toward the southwest and east.

As the contaminants moved downward, some adhered to the fine-grained soil. The soil impact was limited to the fuel UST source area (SB-3). In 2006, maximum concentrations of MTBE, TPH-G and benzene in soil found in SB-3 was <9.7 mg/kg, 6,100 mg/kg, and <9.7 mg/kg, respectively. These concentrations were taken at a depth of 16 feet. At 14 feet, SB-3 was found to contain 0.11 mg/kg benzene, and 0.64 mg/kg MTBE.

Downgradient extent of analytes from former waste oil UST cannot be established. MW-1 has not shown detections of TPH-G, benzene or MTBE, but has shown a maximum concentration of PCE of 2.7 ug/l on September 15, 1989. Currently, PCE is not detected in MW-1. Trichlorotrifluoroethane has been detected at 4.3 ug/l on September 9, 2007. Installation of additional wells and advancement of borings downgradient from the former waste oil UST is limited by residences in the immediate downgradient direction **(Figure 2).**

5.5 Concentration Trends

TPH-G has only been detected in wells MW-2 and MW-3. TPH-G concentration graphs are shown on **Figures 6** and **7**. The graphs illustrate the declining trend in TPH-G concentrations from a maximum of 21,000 ug/l in 1992 to 56 ug/l in September 2008 for well MW-3, and from 3,900 ug/l in 1990 to less than 50 ug/l in September of 2008 for MW-2.

MTBE has been detected in wells MW-2, MW-3 and to a lesser extent, MW-4. MTBE concentrations are shown on the same graphs for wells MW-2 and MW-3 . The graphs illustrate the high concentration stance of MTBE of 4,800 ug/l in well MW-3 in 1995, and 260 ug/l in well MW-2 1997. Currently, concentrations in wells MW-2 and MW-3 are 3.1 ug/l and 43 ug/l, respectively.

BTEX concentrations in wells MW-2 and MW-3 historically have been high , and tend to vary with TPH-G trends. Currently the only benzene detection is in well MW-2 at 1.6 ug/l.

6.0 SITE REMEDIATION

In October 1989, approximately 4 feet of the side wall soil was excavated from the fuel tank pit.

In October 1998, approximately 380 cubic yards of soil was disposed of off-site during site demolition activities.

7.0 POTENTIAL SENSITIVE RECEPTORS

The following sections evaluate the various potential impacts to sensitive receptors from petroleum hydrocarbons and MTBE detected in soil and groundwater.

7.1 Environmental Screening Levels

The California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) has published Environmental Screening Levels (ESLs) for chemicals commonly found in soil and groundwater at sites where releases of chemicals have occurred. The RWQCB notes "The ESLs are considered to be conservative." The tables below compare site specific soil and groundwater concentrations for TPH-G, benzene, and MTBE with ESLs for various potential sensitive receptors. The ESL tables for various sensitive receptors as found in the November 2007 publication are referenced.

	ESL Table	TPH-G (mg/kg)	Benzene (mg/kg)	MTBE (mg/kg)
Maximum Concentration Detected in Soil Sample		**6,100 (SB-3 at 16')**	**<9.7** (SB-3 at 16')	**<9.7** (SB-3 at 16')
Groundwater Protection (shallow soils <3 meters)*	A-1	83	0.044	0.023
Groundwater Protection (deep soils >3 meters)*	C-1	83	0.044	0.023
Direct Exposure - Residential	K-1	110	0.12	30
Direct Exposure – Commercial	K-2	450	0.27	65
Direct Exposure – Construction/Trench Workers	K-3	42,000	12	2,800

* Ingestion. Groundwater considered a current or potential source of drinking water.

	ESL Table	TPH-G (ug/L)	Benzene (ug/L)	MTBE (ug/L)
Concentration Groundwater 3/27/08		**<50**	**1.8**	**1.3**
Potential Vapor Intrusion - Residential	E-1	NA	540	24,000
Potential Vapor Intrusion - Commercial	E-1	NA	1,800	8,000,000
California Maximum Contaminant Level (MCL)	F-3	NA	1.0	13

The maximum soil concentration for TPH-G, benzene and MTBE in the area of boring SB-3, exceeds the ESL for leaching to groundwater considered as a current or potential source of drinking water. The site specific conditions are considered to mitigate these exceedances. The site is underlain by clay and clayey sand that impede contaminant leaching. MTBE is detected below the MCL of 13 ug/l with a decreasing concentration trend indicating a lack of significant leaching.

The maximum groundwater concentration for benzene of 1.8 ug/l exceeds the ESL of 1.0 ug/l. PCE and TCE concentrations (<0.5ug/l and 4.3 ug/l, respectively) collected in September 27, 2007 did not exceed the MCL of 5.0 ug/l.

7.2 Indoor Air Inhalation - Soil

No ESLs have been established for protection of indoor air from impacted soil. The RWQCB recommends direct measurement of soil gas concentrations in soil. The upward migration of any petroleum hydrocarbons remaining in soil is limited due to the silty nature of site soils and the generally low concentrations and limited area of soil impacts. The threat of soil vapors impacting indoor air quality is considered minimal.

7.3 Impact to Drinking Water Supply Wells

A sensitive receptor survey has been conducted for the site. According to the California Department of Water Resources (DWR) records, no water supply wells have been located within 2,000 feet of the site. The nearest well identified was a private water well located approximately 2,500 feet east-southeast of the site.

8.0 SUMMARY

Delta has prepared an SCM that describes the occurrence, migration, and fate of petroleum hydrocarbons and MTBE previously identified beneath the. The following are the key observations and conclusions;

- Site soils are generally fine-grained consisting of clay and clayey sand. The groundwater flow rate is estimated at less than one foot per year. The primary direction of groundwater flow is to east and to the southwest.

- Groundwater typically occurs at a depth of approximately 12 to 18 feet below top of casing. Depth to groundwater in monitoring wells fluctuates 2 to 5 feet annually

- Facility plans from 1989 indicate that the site gasoline USTs were located in the eastern portion of the property, while the waste oil UST was located just southeast of the service building.

- A release of gasoline and waste oil from the site USTs appears to have occurred prior to July 1989. Soil samples from the UST pits showed a maximum concentration of TPH-G of 3,100 ppm, and 36 ppm of TOG. Petroleum hydrocarbons moved downward from the base of the USTs through 6 to 7 feet of vadose zone. The petroleum hydrocarbons dissolved into the groundwater at a depth of approximately 19 feet bgs and migrated to the southwest and east with the natural groundwater flow gradient.

- TPH-G, was detected in the first groundwater samples collected from wells MW-2 and MW-3 in September 15, 1989 at 290 ug/l and 32ug/l, respectively. Well MW-2 is located approximately 15 feet downgradient of the USTs, and well MW-3 is located approximately 10 feet up gradient from the USTs. TPH-G has only been detected in wells MW-2 and MW-3. TPH-G and BTEX compounds were not detected in the groundwater from boring SB-2, located east (downgradient) of the site (Figure 2).

- TPH-G and MTBE concentrations in groundwater samples from wells MW-2 and MW-3 continue to decline. MTBE was detected in the March 27, 2008 sample from wells MW-2 and MW-3 at 1.3 ug/l and 19 ug/l, respectively.

- A comparison of TPH-G, benzene, and MTBE concentrations in site soil and groundwater with RWQCB ESLs indicates that they do not pose a significant risk to public health or the environment.

9.0 RECOMMENDATIONS

Additional groundwater samples are needed to determine the southwestern extent of contamination from the former waste oil UST, however, access to ideal drilling locations is limited by residences south of the site (**Figure 2**). One possibility would be to gain access to a parcel located directly south of MW-2, which appears to be an empty (parking) lot. Locations on-site are limited due to the recent construction of additional structures over the location of the former waste oil UST. Future boring locations should not be more than 30 feet from the site due to the low groundwater velocity.

Delta recommends collection of a groundwater sample south of the site (**Figure 2**). MTBE and TBA were detected in the "grab" groundwater sample from boring SB-1 located south the site. Direct-push drill equipment will be used to collect a groundwater sample at a depth of approximately 19 feet bgs. The sample will be analyzed for TPH-G, BTEX compounds, MTBE, and TBA.

10.0 LIMITATIONS

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

11.0 REFERENCES

MPDS Services Inc., Baseline Due Dilligence, 76 Station #3538, 411 W. MacArthur Blvd, Oakland CA , February 9, 1997,

California Department of Water Resources, *Bulletin 118 Updated 2003, California's Groundwater*, October 2003.

Gettler-Ryan Inc., *Request for Closure, 76 Station 3538, 411 MacArthur Blvd, Oakland, California*, October 30, 2002.

Gettler-Ryan Inc., *Well Installation Report, Tosco (76) Service Station No. 0018, 6201 Claremont Avenue, Oakland, California*, December 18, 2000.

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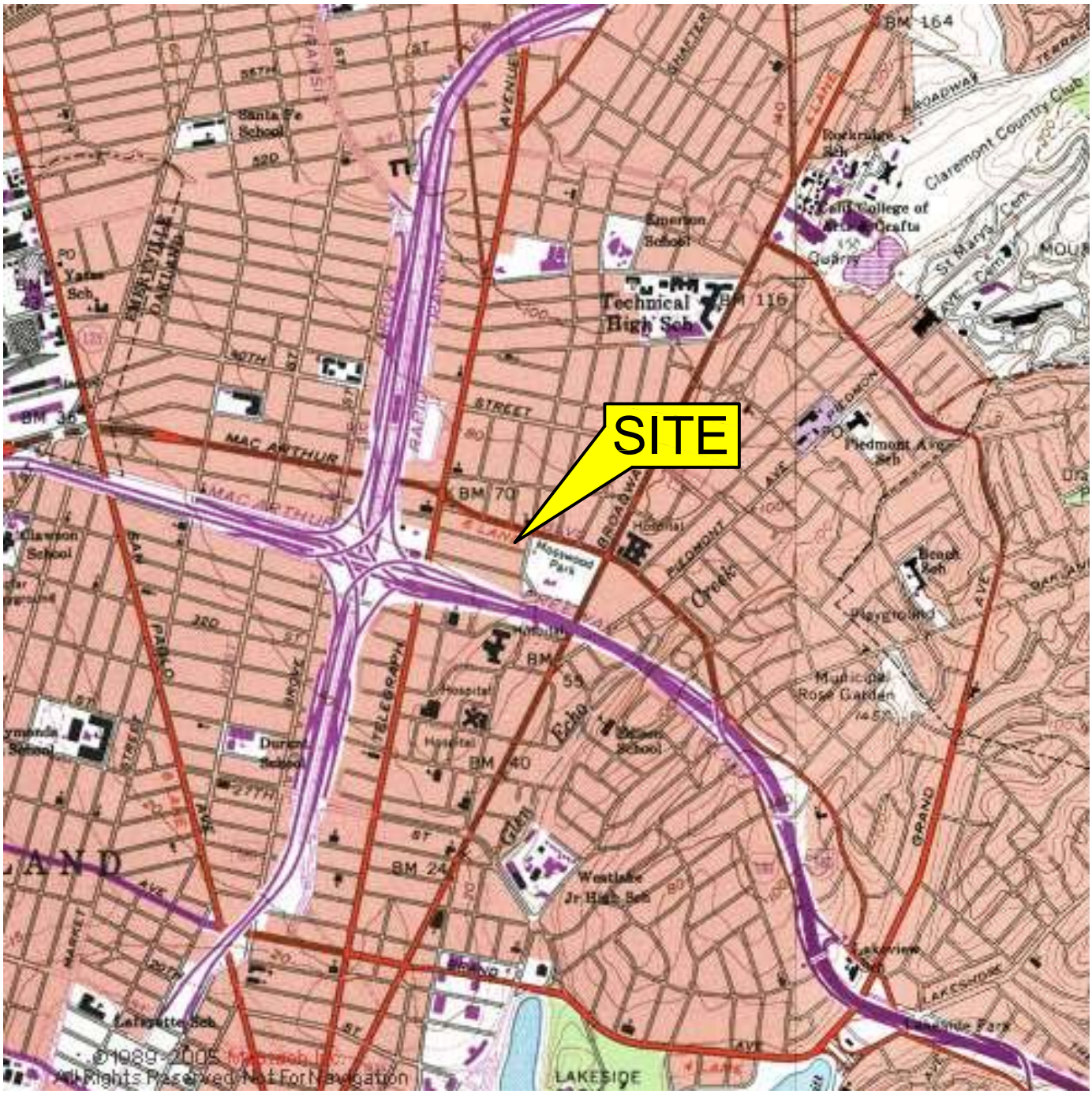
TRC, *Quarterly Monitoring Report, October 2007 through March 2008, 76 Service Station 3538, 411 MacArthur Blvd,, Oakland, California*, April 15, 2008.

TRC, *Soil and Groundwater Investigation Report, 76 Station 3538, 411 MacArthur Blvd, Oakland, California*, April 28, 2006.

FIGURES



North

0 2400 FT 4800 FT

SCALE: 1 : 24,000

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND WEST QUADRANGLE (1993)

FIGURE 1

SITE LOCATION MAP

FORMER 76 STATION NO. 3538
411 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO. C103538	DRAWN BY JH 11/14/08
FILE NO. 3538-Site Locator	PREPARED BY NP
REVISION NO.	REVIEWED BY DB

DELTA®

EVERGREEN
BAPTIST
CHURCH

B

BP
STATION

DISPENSER ISLANDS
& CANOPIES

MW–6

WEST MACARTHUR BOULEVARD

MW–5

A

MW–4

MW–3

A'

SB–4

SB–3

RESIDENTIAL
419/421
WEST
MACARTHUR

FORMER
DISPENSER
ISLANDS

FORMER UST

FORMER UST

STATION
BUILDING

MW–1

CANOPY

SHED

MW–2

SB–2

SB–5

PLAYGROUND

FORMER
WASTE OIL UST

SHED

WEBSTER STREET

LOT

SB–1

RESIDENTIAL
430
37TH
STREET

RESIDENTIAL
428
37TH
STREET

RESIDENTIAL
424
37TH
STREET

RESIDENTIAL
420
37TH
STREET

RESIDENTIAL
416
37TH
STREET

RESIDENTIAL
412
37TH
STREET

RESIDENTIAL
402
37TH
STREET

B

LEGEND

Approximate property line

Groundwater monitoring well

Soil Boring by TRC, March 2006

N

0 30 FT

SCALE

SOURCE: Site plan by Gettler–Ryan, August 2000.

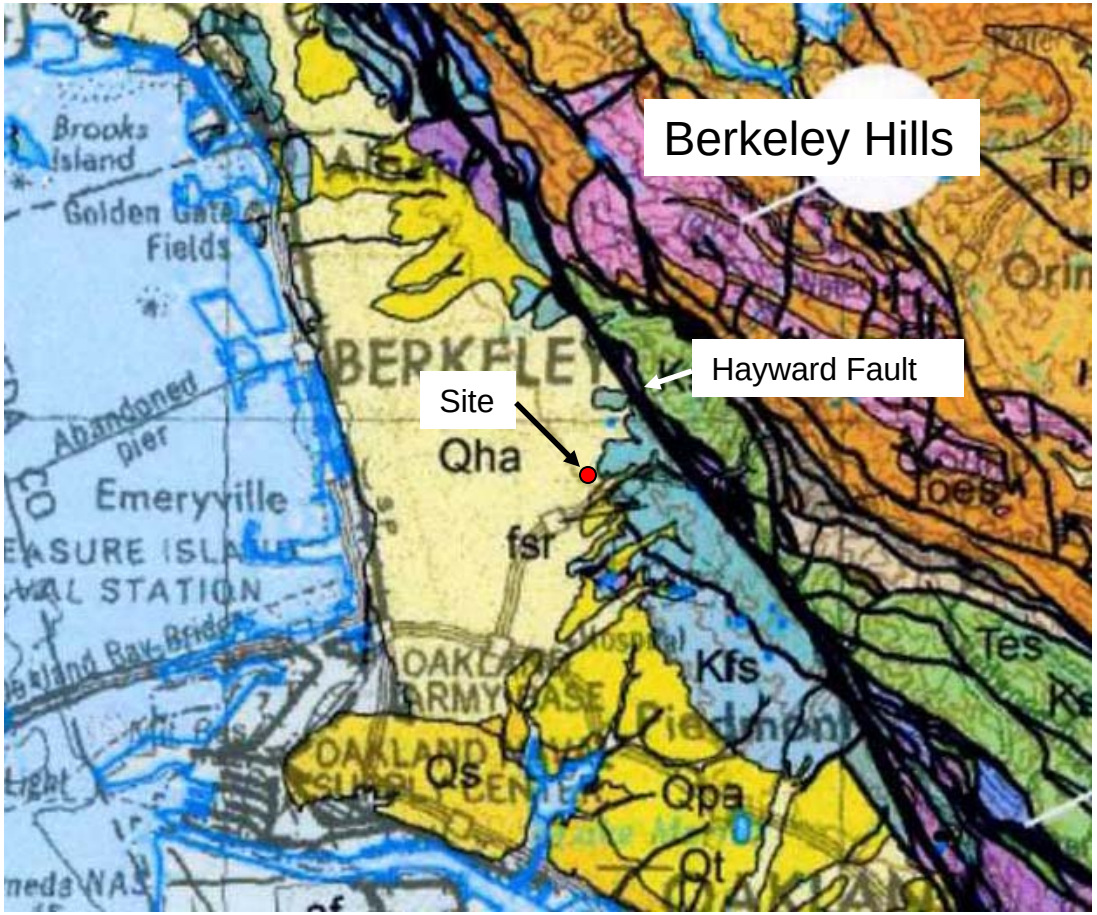
FIGURE 2
SITE PLAN

FORMER 76 STATION 3538
411 WEST MACARTUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C103538	NP	JH
DATE	REVIEWED BY	FILE NAME
10/22/08	TP	76–3538

DELTA®

Figure 3 – Regional Geologic Map



Qha = Alluvium (Holocene)

Qs = Beach and dune sand

Qpa = Alluvium (Pliestocene)

Kfs/fsr = Franciscan Complex (Cretaceous)

Geologic Map of the San Francisco Bay Area; Geology and Geologic Hazards; U.S.Geological Survey

NORTHEAST

B

SOUTHWEST

B'

MW-4 SB-4 MW-3 SB-3 SB-2 MW-5

0 5 10 15 20 25 30

31,ND,NA
<0.93,<0.0047,<0.0047
17,ND,NA
20,ND,NA
<0.92,<0.0046,<0.0046
2.1,ND,NA
9/07 Q
ND<50/ND<0.3/ND<1
ND<50/ND<0.50/3.4
1.3,ND,NA
1.3,0.29,NA
3.3,ND,NA
3/08 Q
ND<50/ND<0.3/19
ND,ND,NA
1.3,0.64,0.11
6400,<9.7,<9.7
13000/340/510
ND<0.97,ND<0.0049,ND<0.0049
ND<0.93,ND<0.0047,ND<0.0047
ND<50/ND<0.50/ND<0.50
ND,ND,NA
ND,ND,NA
ND,ND,NA
ND,ND,NA
9/07 Q
ND<50/ND<0.3/ND<1

LEGEND

MW-7 — MONITORING WELL/BORING NAME

WELL CASING/EXPLORATORY BORING

SOIL SAMPLE LOCATION

WELL SCREEN

6400,<9.7,<9.7 — SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (mg/kg)

120/130/11 — GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (ug/L)

(3/08 Q) — MONITORING WELL QUARTERLY GROUNDWATER SAMPLE DATE

DEPTH TO FIRST ENCOUNTERED GROUNDWATER

DEPTH TO STATIC GROUNDWATER

LOW PERMEABILITY
SILT (ML), CLAY (CL)

MEDIUM PERMEABILITY
CLAYEY SAND (SC), CLAYEY GRAVEL (GC)

HIGH PERMEABILITY WITH
WELL GRADED GRAVEL (SP, SW)

APPROXIMATE STRATIGRAPHIC BOUNDARY

NOTES:

1) ND<50=NOT DETECTED AT LABORATORY DETECTION LIMIT
NA=NOT ANALYZED
TPHg=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE=METHYL TERT BUTYL ETHER
mg/kg=MILLIGRAMS PER KILOGRAM
ug/L=MICROGRAMS PER LITER

2) STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

3) GROUNDWATER SAMPLES FROM BORINGS WERE COLLECTED ON THE DRILLING DATE.

0 40
SCALE IN FEET

FIGURE 4
GEOLOGIC CROSS SECTION A–A'

FORMER 76 SERVICE STATION #3538
411 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C103538	NP	JH
DATE	REVIEWED BY	FILE NAME
10/22/08	DD	3538-CrosA

DELTA®

NORTHEAST

B

SOUTHWEST

B'

MW-6

SB-3

MW-2

SB-1

0

5

10

15

20

25

30

31

NA,ND,NA

NA,ND,NA

NA,ND,NA

9/07 Q
ND<50/ND<0.3/ND<1

NA,ND,NA

1.4,ND,NA

ND,ND,NA

1.3,0.64,0.11

6400,<9.7,<9.7

1.8,ND,NA

13,1.5,NA

(3/08 Q)
ND<50/1.8/1.3

13000/340/510

<0.97,<0.0049,<0.0049

2.8,<0.0048,<0.0048

120/130/11

?

?

?

0

40

SCALE IN FEET

5

LEGEND

MW-7

MONITORING WELL/BORING NAME

WELL CASING/EXPLORATORY BORING

SOIL SAMPLE LOCATION

WELL SCREEN

6400,<9.7,<9.7 — SOIL SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (mg/kg)

120/130/11 — GROUNDWATER SAMPLE LOCATION WITH ANALYTICAL DATA: TPHg, BENZENE, MTBE (ug/L)

(3/08 Q) — MONITORING WELL QUARTERLY GROUNDWATER SAMPLE DATE

DEPTH TO FIRST ENCOUNTERED GROUNDWATER

DEPTH TO STATIC GROUNDWATER

LOW PERMEABILITY
SILT (ML), CLAY (CL)

MEDIUM PERMEABILITY
CLAYEY SAND (SC), CLAYEY GRAVEL (GC)

HIGH PERMEABILITY WITH
WELL GRADED GRAVEL (SP, SW)

APPROXIMATE STRATIGRAPHIC BOUNDARY

NOTES:

1) ND<50=NOT DETECTED AT LABORATORY DETECTION LIMIT
NA=NOT ANALYZED
TPHg=TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
MTBE=METHYL TERT BUTYL ETHER
mg/kg=MILLIGRAMS PER KILOGRAM
ug/L=MICROGRAMS PER LITER

2) STRATIGRAPHY BETWEEN BORINGS IS INTERPRETIVE.

3) GROUNDWATER SAMPLES FROM BORINGS WERE COLLECTED ON THE DRILLING DATE.

FIGURE 5
GEOLOGIC CROSS SECTION B–B'

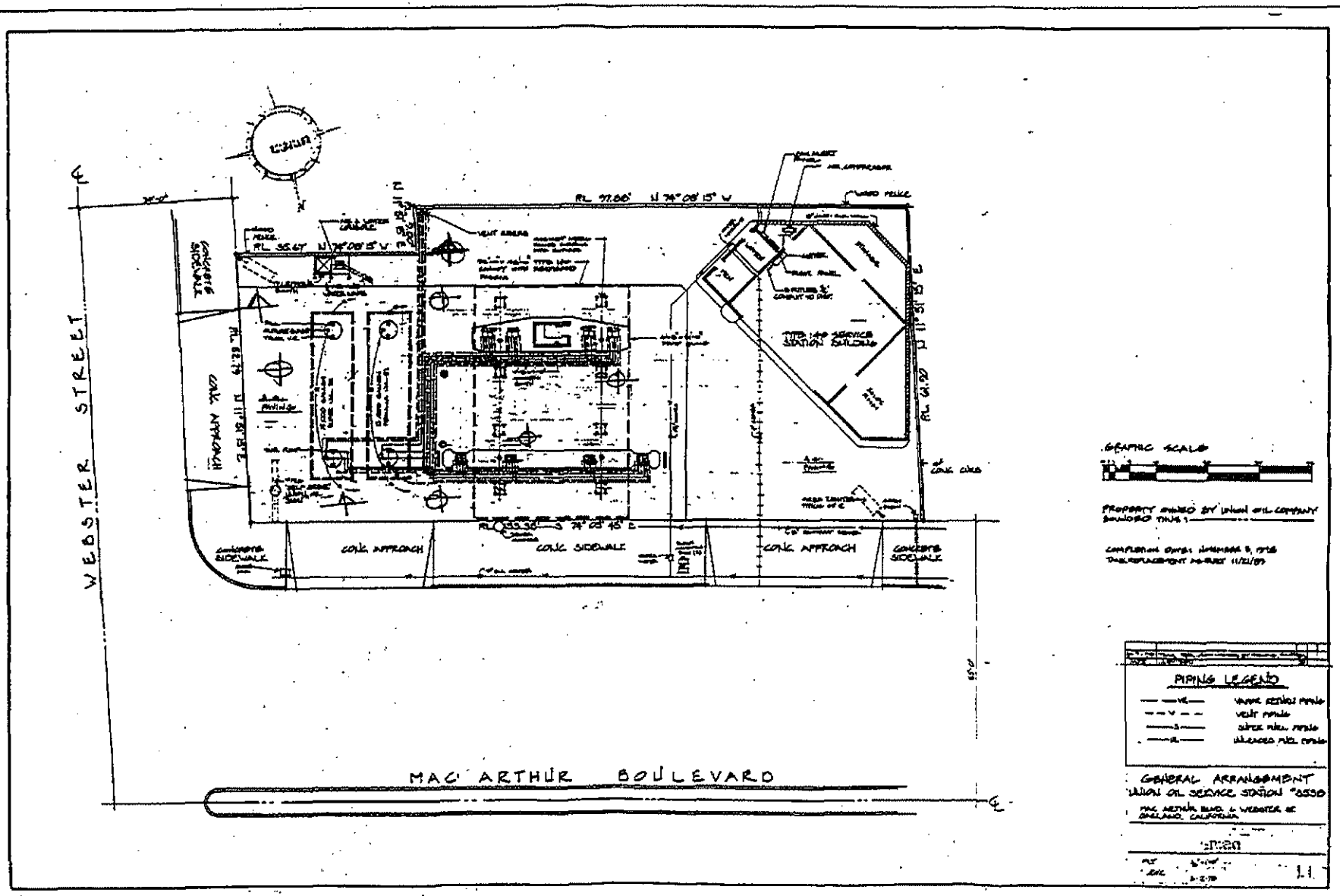
FORMER 76 SERVICE STATION #3538
411 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
C103538	NP	JH
DATE	REVIEWED BY	FILE NAME
10/21/08	DD	3538-CrosB

DELTA®

APPENDIX A

Historic Facility Plan


WEBSTER STREET
MAC ARTHUR BOULEVARD
CONC. APPROACH
CONC. SIDEWALK
CONC. APPROACH
CONCRETE SIDEWALK
GRAPHIC SCALE
PIPING LEGEND
GENERAL ARRANGEMENT
UNION OIL SERVICE STATION "3330"

3536

APPENDIX B

Historic Soil Analytical Data (1989-1992)

KEI-P89-0703.R6
January 18, 1993

TABLE 3

SUMMARY OF LABORATORY ANALYSES
SOIL

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
			(Collected on July 12 & 17, 1989)				
SW1	10.0	--	3,100	12	300	730	110
SW1(4)	10.0	--	ND	ND	ND	ND	ND
SW2	10.0	--	1.1	0.10	ND	0.18	ND
SW3	10.0	--	5.7	0.26	ND	0.45	0.23
SW4	10.0	--	2.5	ND	ND	0.24	ND
SW4(2)	10.0	--	11	0.61	0.51	1.3	0.44
P1	6.5	--	ND	ND	ND	ND	ND
P2	6.5	--	ND	ND	ND	ND	ND
P3	5.5	--	ND	ND	ND	ND	ND
P4	10.0	--	170	0.71	12	47	6.8
WO1*	8.5	ND	ND	ND	ND	ND	ND
			(Collected on September 6 & 7, 1989)				
MW1(5)**	5.0	ND	3.4	ND	ND	ND	ND
MW1(10)**	10.0	ND	5.0	ND	ND	ND	ND
MW1(15)**	15.0	ND	2.2	ND	ND	ND	ND
MW1(19)**	19.0	ND	ND	ND	ND	ND	ND
MW2(5)	5.0	--	1.4	ND	ND	ND	ND
MW2(10)	10.0	--	ND	ND	ND	ND	ND
MW2(15)	15.0	--	1.8	ND	ND	ND	ND
MW2(19)	19.0	--	13	1.5	2.1	1.8	0.34
MW3(5)	5.0	--	1.3	ND	ND	ND	ND
MW3(10)	10.0	--	1.8	0.29	ND	ND	ND
MW3(15)	15.0	--	3.3	ND	ND	ND	ND
MW3(18.5)	18.5	--	ND	ND	ND	ND	ND
MW4(5)	5.0	--	3.1	ND	ND	ND	ND
MW4(10)	10.0	--	17	ND	ND	0.10	ND
MW4(15)	15.0	--	20	ND	ND	0.27	ND
MW4(18.5)	18.5	--	2.1	ND	ND	ND	ND

TABLE 3 (Continued)

SUMMARY OF LABORATORY ANALYSES
SOIL

Sample	Depth (feet)	TPH as Diesel	TPH as Gasoline	Benzene	Toluene	Xylenes	Ethyl-benzene
			(Collected on November 18, 1992)				
MW5(5)	5.0	--	ND	ND	ND	ND	ND
MW5(10)	10.0	--	ND	ND	ND	ND	ND
MW5(15)	15.0	--	ND	ND	ND	ND	ND
MW5(21)	21.0	--	ND	ND	ND	ND	ND
MW6(5)	5.0	--	ND	ND	ND	ND	ND
MW6(10)	10.0	--	ND	ND	ND	ND	ND
MW6(15)	15.0	--	ND	ND	ND	ND	ND
MW6(19.5)	19.5	--	ND	ND	ND	ND	ND

* TOG was 36 ppm, and EPA method 8010 and 8270 constituents were non-detectable.

** TOG was <50 ppm for these samples. EPA method 8010 compounds were non-detectable for these samples.

ND = Non-detectable.

-- Indicates analysis was not performed.

Results in parts per million (ppm), unless otherwise indicated.

APPENDIX C

Historic Groundwater Monitoring Data

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1													
9/15/1989	--	--	--	--	--	ND	ND	0.61	ND	ND	--	--	
1/23/1990	--	--	--	--	--	ND	1.5	2.3	ND	4.3	--	--	
4/19/1990	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/17/1990	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
10/16/1990	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
1/15/1991	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
4/12/1991	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/15/1991	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/14/1992	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
4/13/1993	72.43	17.70	0.00	54.73	--	--	--	--	--	--	--	--	Sampled Q3 only
7/14/1993	72.43	18.49	0.00	53.94	-0.79	ND	2.2	2.1	1.1	6.2	--	--	
10/14/1993	72.10	18.32	0.00	53.78	-0.16	--	--	--	--	--	--	--	Sampled Q3 only
1/12/1994	72.10	18.18	0.00	53.92	0.14	--	--	--	--	--	--	--	Sampled Q3 only
4/11/1994	72.10	17.80	0.00	54.30	0.38	--	--	--	--	--	--	--	Sampled Q3 only
7/7/1994	72.10	18.28	0.00	53.82	-0.48	ND	ND	ND	ND	ND	--	--	
10/5/1994	72.10	18.55	0.00	53.55	-0.27	--	--	--	--	--	--	--	Sampled Q3 only
1/9/1995	72.10	17.90	0.00	54.20	0.65	--	--	--	--	--	--	--	Sampled Q3 only
4/17/1995	72.10	17.22	0.00	54.88	0.68	--	--	--	--	--	--	--	Sampled Q3 only
7/19/1995	72.10	18.03	0.00	54.07	-0.81	ND	ND	ND	ND	ND	--	--	
10/26/1995	72.10	18.67	0.00	53.43	-0.64	--	--	--	--	--	--	--	Sampled Q3 only
1/16/1996	72.10	17.20	0.00	54.90	1.47	--	--	--	--	--	--	--	Sampled Q3 only
4/15/1996	72.10	17.40	0.00	54.70	-0.20	--	--	--	--	--	--	--	Sampled Q3 only

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 continued													
7/11/1996	72.10	18.03	0.00	54.07	-0.63	ND	ND	ND	ND	ND	ND	--	
1/17/1997	72.10	16.54	0.00	55.56	1.49	--	--	--	--	--	--	--	Sampled Q3 only
7/21/1997	72.10	18.16	0.00	53.94	-1.62	ND	ND	ND	ND	ND	ND	--	
1/14/1998	72.10	16.05	0.00	56.05	2.11	--	--	--	--	--	--	--	Sampled Q3 only
7/6/1998	72.10	16.46	0.00	55.64	-0.41	ND	ND	ND	ND	ND	ND	--	
1/13/1999	72.10	17.37	0.00	54.73	-0.91	--	--	--	--	--	--	--	Sampled Q3 only
8/31/1999	72.12	17.00	0.00	55.12	0.39	ND	ND	ND	ND	ND	ND	--	
1/21/2000	72.12	17.04	0.00	55.08	-0.04	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2000	72.12	18.10	0.00	54.02	-1.06	ND	ND	ND	ND	ND	ND	--	
1/4/2001	72.12	17.95	0.00	54.17	0.15	--	--	--	--	--	--	--	Sampled Q3 only
7/16/2001	72.12	18.03	0.00	54.09	-0.08	ND	ND	ND	ND	ND	ND	--	
1/28/2002	72.12	17.31	0.00	54.81	0.72	--	--	--	--	--	--	--	SAMPLED ANNUALLY
7/12/2002	72.12	18.15	0.00	53.97	-0.84	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
1/14/2003	72.12	17.66	0.00	54.46	0.49	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2003	72.12	17.86	0.00	54.26	-0.20	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	
2/4/2004	72.12	17.43	0.00	54.69	0.43	--	--	--	--	--	--	--	Sampled Q3 only
7/29/2004	72.12	18.12	0.00	54.00	-0.69	ND<50	ND<0.3	0.38	ND<0.3	ND<0.6	ND<1	ND<0.5	
3/2/2005	72.12	16.15	0.00	55.97	1.97	--	--	--	--	--	--	--	Sampled Q3 only
9/30/2005	72.12	18.04	0.00	54.08	-1.89	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/23/2006	72.12	--	--	--	--	--	--	--	--	--	--	--	Inaccessible due to gate; Sampled Q3 only
9/26/2006	72.12	17.90	0.00	54.22	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/15/2007	72.12	17.22	0.00	54.90	0.68	--	--	--	--	--	--	--	Sampled Q3 only

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-1 continued													
9/27/2007	72.12	18.49	0.00	53.63	-1.27	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
3/27/2008	72.12	17.57	0.00	54.55	0.92	--	--	--	--	--	--	--	Sampled Q3 only
9/17/2008	72.12	18.20	0.00	53.92	-0.63	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	ND<0.50	
MW-2													
9/15/1989	--	--	--	--	--	290	ND	12	ND	ND	--	--	
1/23/1990	--	--	--	--	--	400	73	36	10	40	--	--	
4/19/1990	--	--	--	--	--	3900	550	5.1	91	390	--	--	
7/17/1990	--	--	--	--	--	490	76	0.59	11	46	--	--	
10/16/1990	--	--	--	--	--	1400	430	2.0	48	240	--	--	
1/15/1991	--	--	--	--	--	680	170	0.7	19	81	--	--	
4/12/1991	--	--	--	--	--	2200	160	4.3	23	62	--	--	
7/15/1991	--	--	--	--	--	2200	770	12	72	370	--	--	
10/15/1991	--	--	--	--	--	140	44	0.56	1.5	12	--	--	
1/15/1992	--	--	--	--	--	220	37	0.52	1.1	7	--	--	
4/14/1992	--	--	--	--	--	150	6.2	ND	ND	1.4	--	--	
7/14/1992	--	--	--	--	--	130	3.7	ND	ND	ND	--	--	
10/12/1992	--	--	--	--	--	370	3.4	0.56	ND	11	--	--	
1/8/1993	--	--	--	--	--	510	ND	ND	ND	ND	--	--	
4/13/1993	71.63	17.86	0.00	53.77	--	410	42	7.7	6.4	28	200	--	
7/14/1993	71.63	18.38	0.00	53.25	-0.52	110	6.5	ND	ND	1.1	250	--	
10/14/1993	71.38	18.20	0.00	53.18	-0.07	230	5.3	ND	ND	2.1	--	--	
1/12/1994	71.38	18.08	0.00	53.30	0.12	300	7.8	3.8	1.8	10	--	--	
4/9/1994	71.38	17.97	0.00	53.41	0.11	120	10	0.88	1.1	4.9	--	--	

TRC

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-2 continued													
4/11/1994	71.38	17.88	0.00	53.50	0.09	--	--	--	--	--	--	--	
7/7/1994	71.38	17.81	0.00	53.57	0.07	110	4.4	ND	ND	ND	--	--	
10/5/1994	71.38	18.33	0.00	53.05	-0.52	720	20	ND	ND	3.1	--	--	
1/9/1995	71.38	17.40	0.00	53.98	0.93	ND	ND	ND	ND	ND	--	--	
4/17/1995	71.38	17.50	0.00	53.88	-0.10	93	5.6	0.62	1.7	5.5	--	--	
7/19/1995	71.38	18.01	0.00	53.37	-0.51	77	32	0.58	1.7	4.1	--	--	
10/26/1995	71.38	18.21	0.00	53.17	-0.20	54	13	ND	ND	0.72	220	--	
1/16/1996	71.38	16.58	0.00	54.80	1.63	120	23	ND	ND	0.99	--	--	
4/15/1996	71.38	17.61	0.00	53.77	-1.03	340	21	ND	2.2	3.7	45	--	
7/11/1996	71.38	17.98	0.00	53.40	-0.37	540	34	ND	4.3	12	150	--	
1/17/1997	71.38	17.08	0.00	54.30	0.90	320	63	2.4	9.4	26	260	--	
7/21/1997	71.38	18.06	0.00	53.32	-0.98	160	13	ND	1.3	1.6	180	--	
1/14/1998	71.38	16.52	0.00	54.86	1.54	66	6.3	ND	ND	0.98	100	--	
7/6/1998	71.38	16.87	0.00	54.51	-0.35	ND	2.3	ND	ND	ND	11	--	
1/13/1999	71.38	17.88	0.00	53.50	-1.01	53	24	ND	0.52	0.98	120	--	
8/31/1999	71.34	18.45	0.00	52.89	-0.61	86	14	ND	0.63	ND	21	--	
1/21/2000	71.34	17.73	0.00	53.61	0.72	ND	1.94	ND	ND	ND	10.1	--	
7/10/2000	71.34	18.14	0.00	53.20	-0.41	ND	ND	ND	ND	ND	46.6	--	
1/4/2001	71.34	18.02	0.00	53.32	0.12	ND	0.925	ND	ND	ND	ND	--	
7/16/2001	71.34	18.02	0.00	53.32	0.00	ND	ND	ND	ND	ND	ND	--	
1/28/2002	71.34	17.57	0.00	53.77	0.45	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
7/12/2002	71.34	18.05	0.00	53.29	-0.48	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
1/14/2003	71.34	17.44	0.00	53.90	0.61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-2 continued													
7/10/2003	71.34	--	--	--	--	--	--	--	--	--	--	--	Car parked over well
2/4/2004	71.34	17.22	0.00	54.12	--	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	
7/29/2004	71.34	--	--	--	--	--	--	--	--	--	--	--	Sampled Q3 only
3/2/2005	71.34	16.63	0.00	54.71	--	99	26	ND<0.50	3.5	2.8	ND<5.0	--	
9/30/2005	71.34	17.94	0.00	53.40	-1.31	ND<50	1.2	ND<0.30	ND<0.30	ND<0.60	1.6	--	
3/23/2006	71.34	16.74	0.00	54.60	1.20	ND<50	3.6	ND<0.30	0.35	ND<0.60	2.5	--	
9/26/2006	71.34	17.91	0.00	53.43	-1.17	ND<50	1.2	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/15/2007	71.34	17.45	0.00	53.89	0.46	110	6.5	ND<0.30	0.70	ND<0.60	1.7	--	
9/27/2007	71.34	18.23	0.00	53.11	-0.78	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/27/2008	71.34	17.77	0.00	53.57	0.46	ND<50	1.8	ND<0.30	ND<0.30	ND<0.60	1.3	--	
9/17/2008	71.34	18.06	0.00	53.28	-0.29	ND<50	1.6	ND<0.30	ND<0.30	ND<0.60	3.1	--	
MW-3													
9/15/1989	--	--	--	--	--	32	ND	ND	ND	ND	--	--	
1/23/1990	--	--	--	--	--	450	110	1.2	4.4	11	--	--	
4/19/1990	--	--	--	--	--	3100	600	27	54	220	--	--	
7/17/1990	--	--	--	--	--	4000	270	48	130	250	--	--	
10/16/1990	--	--	--	--	--	740	210	1.4	2.5	82	--	--	
1/15/1991	--	--	--	--	--	3200	460	1.5	120	270	--	--	
4/12/1991	--	--	--	--	--	880	170	1.1	34	110	--	--	
7/15/1991	--	--	--	--	--	9200	1300	230	490	1900	--	--	
10/15/1991	--	--	--	--	--	3100	390	34	150	390	--	--	
1/15/1992	--	--	--	--	--	3000	590	14	310	750	--	--	
4/14/1992	--	--	--	--	--	14000	660	48	560	2000	--	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3 continued													
7/14/1992	--	--	--	--	--	21000	890	200	1200	4300	--	--	
10/12/1992	--	--	--	--	--	3200	160	10	230	540	--	--	
1/8/1993	--	--	--	--	--	1100	48	0.99	0.9	93	--	--	
4/13/1993	72.06	17.96	0.00	54.10	--	12000	290	38	760	2300	1400	--	
7/14/1993	72.06	18.54	0.00	53.52	-0.58	6300	190	ND	430	1000	860	--	
10/14/1993	71.86	18.45	0.00	53.41	-0.11	2500	52	ND	110	250	--	--	
1/12/1994	71.86	18.34	0.00	53.52	0.11	3800	78	ND	180	390	--	--	
4/9/1994	71.86	18.19	0.00	53.67	0.15	1800	22	ND	140	280	--	--	
4/11/1994	71.86	18.12	0.00	53.74	0.07	--	--	--	--	--	--	--	
7/7/1994	71.86	18.21	0.00	53.65	-0.09	110	4.5	ND	ND	ND	--	--	
10/5/1994	71.86	18.58	0.00	53.28	-0.37	ND	ND	ND	ND	ND	--	--	
1/9/1995	71.86	17.69	0.00	54.17	0.89	ND	0.68	ND	ND	ND	--	--	
4/17/1995	71.86	17.68	0.00	54.18	0.01	3700	80	10	270	510	--	--	
7/19/1995	71.86	18.20	0.00	53.66	-0.52	15000	330	27	990	2400	--	--	
10/26/1995	71.86	18.32	0.00	53.54	-0.12	14000	420	180	750	1600	4800	--	
1/16/1996	71.86	17.95	0.00	53.91	0.37	920	38	ND	30	57	--	--	
4/15/1996	71.86	17.78	0.00	54.08	0.17	9700	240	ND	570	860	3200	--	
7/11/1996	71.86	18.19	0.00	53.67	-0.41	13000	69	5.5	430	900	740	--	
1/17/1997	71.86	17.23	0.00	54.63	0.96	4400	25	ND	270	580	1600	--	
7/21/1997	71.86	18.29	0.00	53.57	-1.06	9000	36	ND	450	800	950	--	
1/14/1998	71.86	16.71	0.00	55.15	1.58	7100	40	ND	380	360	930	--	
7/6/1998	71.86	17.03	0.00	54.83	-0.32	6800	39	ND	320	360	370	--	
1/13/1999	71.86	18.00	0.00	53.86	-0.97	1800	9.4	ND	58	36	180	--	

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Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-3 continued													
8/31/1999	71.40	--	0.00	--	--	--	--	--	--	--	--	--	Well obstructed at 0.5 feet.
1/21/2000	71.40	17.58	0.00	53.82	--	ND	ND	ND	ND	ND	21.4	--	
7/10/2000	71.40	18.05	0.00	53.35	-0.47	ND	ND	ND	ND	ND	162	--	
8/25/2000	71.40	17.82	0.00	53.58	0.23	--	--	--	--	--	--	180	
1/4/2001	71.40	18.16	0.00	53.24	-0.34	ND	ND	ND	ND	ND	193	--	
7/16/2001	71.40	17.98	0.00	53.42	0.18	ND	ND	ND	ND	ND	660	--	
1/28/2002	71.40	17.84	0.00	53.56	0.14	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	34	--	
7/12/2002	71.40	17.87	0.00	53.53	-0.03	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	11	19	
1/14/2003	71.40	17.28	0.00	54.12	0.59	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	12	--	
7/10/2003	71.40	17.64	0.00	53.76	-0.36	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	23	--	
2/4/2004	71.40	17.05	0.00	54.35	0.59	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	26	--	
7/29/2004	71.40	17.82	0.00	53.58	-0.77	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1	--	
3/2/2005	71.40	16.47	0.00	54.93	1.35	93	ND<0.50	ND<0.50	ND<0.50	ND<0.50	140	--	
9/30/2005	71.40	17.79	0.00	53.61	-1.32	65	ND<0.30	ND<0.30	ND<0.30	ND<0.60	61	--	
3/23/2006	71.40	16.61	0.00	54.79	1.18	54	ND<0.30	0.41	ND<0.30	0.98	63	--	
9/26/2006	71.40	17.77	0.00	53.63	-1.16	51	ND<0.30	ND<0.30	ND<0.30	ND<0.60	41	--	
3/15/2007	71.40	17.27	0.00	54.13	0.50	140	ND<0.30	ND<0.30	ND<0.30	ND<0.60	110	--	
9/27/2007	71.40	18.48	0.00	52.92	-1.21	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	20	--	
3/27/2008	71.40	17.67	0.00	53.73	0.81	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	19	--	
9/17/2008	71.40	17.91	0.00	53.49	-0.24	56	ND<0.30	ND<0.30	ND<0.30	ND<0.60	43	--	
MW-4													
9/15/1989	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
1/23/1990	--	--	--	--	--	ND	ND	0.4	ND	ND	--	--	

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Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4 continued													
4/19/1990	--	--	--	--	--	ND	ND	0.48	ND	ND	--	--	
7/17/1990	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
10/16/1990	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
1/15/1991	--	--	--	--	--	ND	ND	ND	--	ND	--	--	
4/12/1991	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/15/1991	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
7/14/1992	--	--	--	--	--	ND	1.3	2.5	ND	1.0	--	--	
4/13/1993	71.98	17.67	0.00	54.31	--	--	--	--	--	--	--	--	Sampled Q3 only
7/14/1993	71.98	18.31	0.00	53.67	-0.64	ND	ND	ND	ND	ND	--	--	
10/14/1993	71.64	18.08	0.00	53.56	-0.11	--	--	--	--	--	--	--	Sampled Q3 only
1/12/1994	71.64	17.97	0.00	53.67	0.11	--	--	--	--	--	--	--	Sampled Q3 only
4/11/1994	71.64	17.70	0.00	53.94	0.27	--	--	--	--	--	--	--	Sampled Q3 only
7/7/1994	71.64	17.80	0.00	53.84	-0.10	ND	ND	ND	ND	ND	--	--	
10/5/1994	71.64	18.28	0.00	53.36	-0.48	--	--	--	--	--	--	--	Sampled Q3 only
1/9/1995	71.64	17.38	0.00	54.26	0.90	--	--	--	--	--	--	--	Sampled Q3 only
4/17/1995	71.64	17.21	0.00	54.43	0.17	--	--	--	--	--	--	--	Sampled Q3 only
7/19/1995	71.64	17.82	0.00	53.82	-0.61	ND	ND	ND	ND	ND	--	--	
10/26/1995	71.64	18.17	0.00	53.47	-0.35	--	--	--	--	--	--	--	Sampled Q3 only
1/16/1996	71.64	16.45	0.00	55.19	1.72	--	--	--	--	--	--	--	Sampled Q3 only
4/15/1996	71.64	17.35	0.00	54.29	-0.90	--	--	--	--	--	--	--	Sampled Q3 only
7/11/1996	71.64	17.81	0.00	53.83	-0.46	ND	ND	ND	ND	ND	ND	--	
1/17/1997	71.64	16.73	0.00	54.91	1.08	--	--	--	--	--	--	--	Sampled Q3 only
7/21/1997	71.64	17.91	0.00	53.73	-1.18	ND	ND	ND	ND	ND	ND	--	

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Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-4 continued													
1/14/1998	71.64	16.18	0.00	55.46	1.73	--	--	--	--	--	--	--	Sampled Q3 only
7/6/1998	71.64	16.49	0.00	55.15	-0.31	ND	ND	ND	ND	ND	ND	--	
1/13/1999	71.64	17.29	0.00	54.35	-0.80	--	--	--	--	--	--	--	Sampled Q3 only
8/31/1999	71.54	--	0.00	--	--	--	--	--	--	--	--	--	Well obstructed at 10.4 feet.
1/21/2000	71.54	17.51	0.00	54.03	--	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2000	71.54	17.93	0.00	53.61	-0.42	ND	ND	ND	ND	ND	ND	--	
1/4/2001	71.54	18.10	0.00	53.44	-0.17	--	--	--	--	--	--	--	Sampled Q3 only
7/16/2001	71.54	17.76	0.00	53.78	0.34	ND	ND	ND	ND	ND	ND	--	
1/28/2002	71.54	17.20	0.00	54.34	0.56	--	--	--	--	--	--	--	SAMPLED ANNUALLY
7/12/2002	71.54	17.81	0.00	53.73	-0.61	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
1/14/2003	71.54	17.30	0.00	54.24	0.51	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2003	71.54	17.58	0.00	53.96	-0.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	
2/4/2004	71.54	17.07	0.00	54.47	0.51	--	--	--	--	--	--	--	Sampled Q3 only
7/29/2004	71.54	17.81	0.00	53.73	-0.74	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	ND<1	--	
3/2/2005	71.54	16.25	0.00	55.29	1.56	--	--	--	--	--	--	--	Sampled Q3 only
9/30/2005	71.54	17.74	0.00	53.80	-1.49	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/23/2006	71.54	--	--	--	--	--	--	--	--	--	--	--	Inaccessible due to gate; Sampled Q3 only
9/26/2006	71.54	17.71	0.00	53.83	--	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/15/2007	71.54	17.56	0.00	53.98	0.15	--	--	--	--	--	--	--	Sampled Q3 only
9/27/2007	71.54	18.16	0.00	53.38	-0.60	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/27/2008	71.54	17.58	0.00	53.96	0.58	--	--	--	--	--	--	--	Sampled Q3 only
9/17/2008	71.54	17.87	0.00	53.67	-0.29	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-5													
11/30/1992	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
1/8/1993	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
4/13/1993	71.51	17.49	0.00	54.02	--	ND	ND	ND	ND	ND	--	--	
7/14/1993	71.51	18.02	0.00	53.49	-0.53	ND	ND	0.57	ND	ND	--	--	
10/14/1993	71.23	17.82	0.00	53.41	-0.08	ND	ND	ND	ND	ND	--	--	
1/12/1994	71.23	17.74	0.00	53.49	0.08	ND	ND	0.84	ND	1.6	--	--	
4/11/1994	71.23	17.56	0.00	53.67	0.18	--	--	--	--	--	--	--	Sampled Q3 only
7/7/1994	71.23	17.50	0.00	53.73	0.06	ND	ND	ND	ND	ND	--	--	
10/5/1994	71.23	17.98	0.00	53.25	-0.48	--	--	--	--	--	--	--	Sampled Q3 only
1/9/1995	71.23	17.13	0.00	54.10	0.85	--	--	--	--	--	--	--	Sampled Q3 only
4/17/1995	71.23	17.05	0.00	54.18	0.08	--	--	--	--	--	--	--	Sampled Q3 only
7/19/1995	71.23	17.59	0.00	53.64	-0.54	ND	ND	ND	ND	ND	--	--	
10/26/1995	71.23	18.10	0.00	53.13	-0.51	--	--	--	--	--	--	--	Sampled Q3 only
1/16/1996	71.23	17.11	0.00	54.12	0.99	--	--	--	--	--	--	--	Sampled Q3 only
4/15/1996	71.23	17.22	0.00	54.01	-0.11	--	--	--	--	--	--	--	Sampled Q3 only
7/11/1996	71.23	17.59	0.00	53.64	-0.37	ND	ND	ND	ND	ND	ND	--	
1/17/1997	71.23	16.75	0.00	54.48	0.84	--	--	--	--	--	--	--	Sampled Q3 only
7/21/1997	71.23	17.59	0.00	53.64	-0.84	ND	ND	ND	ND	ND	ND	--	
1/14/1998	71.23	16.16	0.00	55.07	1.43	--	--	--	--	--	--	--	Sampled Q3 only
7/6/1998	71.23	16.52	0.00	54.71	-0.36	ND	ND	ND	ND	ND	ND	--	
1/13/1999	71.23	17.62	0.00	53.61	-1.10	--	--	--	--	--	--	--	Sampled Q3 only
8/31/1999	71.16	17.76	0.00	53.40	-0.21	ND	ND	ND	ND	ND	ND	--	
1/21/2000	71.16	16.83	0.00	54.33	0.93	--	--	--	--	--	--	--	Sampled Q3 only

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Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-5 continued													
7/10/2000	71.16	17.46	0.00	53.70	-0.63	ND	ND	ND	ND	ND	ND	--	
1/4/2001	71.16	17.51	0.00	53.65	-0.05	--	--	--	--	--	--	--	Sampled Q3 only
7/16/2001	71.16	17.32	0.00	53.84	0.19	ND	ND	ND	ND	ND	ND	--	
1/28/2002	71.16	17.12	0.00	54.04	0.20	--	--	--	--	--	--	--	SAMPLED ANNUALLY
7/12/2002	71.16	17.12	0.00	54.04	0.00	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	
1/14/2003	71.16	16.67	0.00	54.49	0.45	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2003	71.16	17.39	0.00	53.77	-0.72	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	
2/4/2004	71.16	16.23	0.00	54.93	1.16	--	--	--	--	--	--	--	Sampled Q3 only
7/29/2004	71.16	16.02	0.00	55.14	0.21	ND<50	ND<0.3	0.64	ND<0.3	0.79	ND<1	--	
3/2/2005	71.16	16.43	0.00	54.73	-0.41	--	--	--	--	--	--	--	Sampled Q3 only
9/30/2005	71.16	17.41	0.00	53.75	-0.98	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/23/2006	71.16	16.37	0.00	54.79	1.04	--	--	--	--	--	--	--	Sampled Q3 only
9/26/2006	71.16	15.54	0.00	55.62	0.83	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/15/2007	71.16	17.20	0.00	53.96	-1.66	--	--	--	--	--	--	--	Sampled Q3 only
9/27/2007	71.16	18.01	0.00	53.15	-0.81	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/27/2008	71.16	17.57	0.00	53.59	0.44	--	--	--	--	--	--	--	Sampled Q3 only
9/17/2008	71.16	17.68	0.00	53.48	-0.11	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
MW-6													
11/30/1992	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
1/8/1993	--	--	--	--	--	ND	ND	ND	ND	ND	--	--	
4/13/1993	71.79	11.94	0.00	59.85	--	ND	ND	ND	ND	ND	--	--	
7/14/1993	71.79	17.20	0.00	54.59	-5.26	ND	0.99	2.4	ND	1.9	--	--	
10/14/1993	71.44	17.21	0.00	54.23	-0.36	ND	ND	0.64	ND	ND	--	--	

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Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-6 continued													
1/12/1994	71.44	17.44	0.00	54.00	-0.23	ND	ND	1.2	ND	2.9	--	--	
4/11/1994	71.44	13.66	0.00	57.78	3.78	--	--	--	--	--	--	--	Sampled Q3 only
7/7/1994	71.44	14.05	0.00	57.39	-0.39	ND	ND	ND	ND	ND	--	--	
10/5/1994	71.44	14.16	0.00	57.28	-0.11	--	--	--	--	--	--	--	Sampled Q3 only
1/9/1995	71.44	13.73	0.00	57.71	0.43	--	--	--	--	--	--	--	Sampled Q3 only
4/17/1995	71.44	11.30	0.00	60.14	2.43	--	--	--	--	--	--	--	Sampled Q3 only
7/19/1995	71.44	12.32	0.00	59.12	-1.02	ND	ND	ND	ND	ND	--	--	
10/26/1995	71.44	17.88	0.00	53.56	-5.56	--	--	--	--	--	--	--	Sampled Q3 only
1/16/1996	71.44	16.38	0.00	55.06	1.50	--	--	--	--	--	--	--	Sampled Q3 only
4/15/1996	71.44	14.00	0.00	57.44	2.38	--	--	--	--	--	--	--	Sampled Q3 only
7/11/1996	71.44	13.58	0.00	57.86	0.42	ND	ND	ND	ND	ND	ND	--	
1/17/1997	71.44	15.42	0.00	56.02	-1.84	--	--	--	--	--	--	--	Sampled Q3 only
7/21/1997	71.44	13.78	0.00	57.66	1.64	ND	ND	ND	ND	ND	ND	--	
1/14/1998	71.44	13.65	0.00	57.79	0.13	--	--	--	--	--	--	--	Sampled Q3 only
7/6/1998	71.44	13.90	0.00	57.54	-0.25	ND	ND	ND	ND	ND	ND	--	
1/13/1999	71.44	14.93	0.00	56.51	-1.03	--	--	--	--	--	--	--	Sampled Q3 only
8/31/1999	71.37	15.81	0.00	55.56	-0.95	ND	ND	ND	ND	ND	ND	--	
1/21/2000	71.37	16.13	0.00	55.24	-0.32	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2000	71.37	16.95	0.00	54.42	-0.82	ND	ND	ND	ND	ND	ND	--	
1/4/2001	71.37	17.09	0.00	54.28	-0.14	--	--	--	--	--	--	--	Sampled Q3 only
7/16/2001	71.37	16.83	0.00	54.54	0.26	ND	ND	ND	ND	ND	ND	--	
1/28/2002	71.37	14.58	0.00	56.79	2.25	--	--	--	--	--	--	--	SAMPLED ANNUALLY
7/12/2002	71.37	16.76	0.00	54.61	-2.18	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	

Table 2

HISTORIC FLUID LEVELS AND SELECTED ANALYTICAL RESULTS

September 1989 Through September 2008

Former 76 Station 3538

Date Sampled	TOC Elevation (feet)	Depth to Water (feet)	LPH Thickness (feet)	Ground-water Elevation (feet)	Change in Elevation (feet)	TPH-G (8015M) (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Total Xylenes (µg/l)	MTBE (8021B) (µg/l)	MTBE (8260B) (µg/l)	Comments
MW-6 continued													
1/14/2003	71.37	16.25	0.00	55.12	0.51	--	--	--	--	--	--	--	Sampled Q3 only
7/10/2003	71.37	12.97	0.00	58.40	3.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.0	--	
2/4/2004	71.37	16.20	0.00	55.17	-3.23	--	--	--	--	--	--	--	Sampled Q3 only
7/29/2004	71.37	14.98	0.00	56.39	1.22	ND<50	ND<0.3	ND<0.3	ND<0.3	ND<0.6	1.3	--	
3/2/2005	71.37	14.51	0.00	56.86	0.47	--	--	--	--	--	--	--	Sampled Q3 only
9/30/2005	71.37	14.45	0.00	56.92	0.06	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	1.7	--	
3/23/2006	71.37	16.55	0.00	54.82	-2.10	--	--	--	--	--	--	--	Sampled Q3 only
9/26/2006	71.37	17.58	0.00	53.79	-1.03	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/15/2007	71.37	13.72	0.00	57.65	3.86	--	--	--	--	--	--	--	Sampled Q3 only
9/27/2007	71.37	14.18	0.00	57.19	-0.46	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	ND<1.0	--	
3/27/2008	71.37	14.83	0.00	56.54	-0.65	--	--	--	--	--	--	--	Sampled Q3 only
9/17/2008	71.37	14.70	0.00	56.67	0.13	ND<50	ND<0.30	ND<0.30	ND<0.30	ND<0.60	2.8	--	

Table 2 a
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	TPH-D (µg/l)	TBA (µg/l)	Ethanol (8260B) (µg/l)	Ethylene-dibromide (EDB) (µg/l)	1,2-DCA (EDC) (µg/l)	DIPE (µg/l)	ETBE (µg/l)	TAME (µg/l)	Total Oil and Grease (mg/l)	Bromo-dichloro-methane (µg/l)	Bromo-form (µg/l)	Bromo-methane (µg/l)
MW-1												
9/15/1989	ND	--	--	--	--	--	--	--	ND	--	--	--
1/23/1990	ND	--	--	--	--	--	--	--	1.5	--	--	--
4/19/1990	ND	--	--	--	--	--	--	--	ND	--	--	--
7/17/1990	ND	--	--	--	--	--	--	--	ND	--	--	--
10/16/1990	ND	--	--	--	--	--	--	--	ND	--	--	--
1/15/1991	ND	--	--	--	--	--	--	--	ND	--	--	--
4/12/1991	ND	--	--	--	--	--	--	--	ND	--	--	--
7/15/1991	ND	--	--	--	--	--	--	--	ND	--	--	--
7/16/2001	--	--	--	--	--	--	--	--	--	1.7	--	--
7/29/2004	--	--	--	--	ND<0.5	--	--	--	--	ND<0.5	ND<0.5	ND<1
9/30/2005	--	--	--	--	ND<0.50	--	--	--	--	ND<0.50	ND<0.50	ND<1.0
9/26/2006	--	--	--	--	ND<0.50	--	--	--	--	ND<0.50	ND<0.50	ND<1.0
9/27/2007	--	--	--	--	ND<0.50	--	--	--	--	ND<0.50	ND<0.50	ND<1.0
9/17/2008	--	--	--	--	ND<0.50	--	--	--	--	ND<0.50	ND<0.50	ND<1.0
MW-3												
8/25/2000	--	ND	--	ND	ND	ND	ND	ND	--	--	--	--
7/12/2002	--	ND<20	ND<500	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	--	--	--	--

Table 2 b
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	Carbon Tetra-chloride (µg/l)	Chloro-benzene (µg/l)	Chloro-ethane (µg/l)	Chloroform (µg/l)	Chloro-methane (µg/l)	Dibromo-chloro-methane (µg/l)	1,2-Dichloro-benzene (µg/l)	1,3-Dichloro-benzene (µg/l)	1,4-Dichloro-benzene (µg/l)	Dichloro-difluoro-methane (µg/l)	1,1-DCA (µg/l)	1,1-DCE (µg/l)
MW-1												
7/11/1996	--	--	--	0.96	--	--	--	--	--	--	--	--
7/21/1997	--	--	--	1.0	--	--	--	--	--	--	--	--
7/16/2001	--	--	--	45	--	--	--	--	--	--	--	--
7/12/2002	--	--	--	--	--	--	--	--	--	--	--	1.8
7/10/2003	--	--	--	--	--	--	--	--	--	--	--	0.89
7/29/2004	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2
9/30/2005	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.52
9/26/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	0.60
9/27/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
9/17/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50

TRC

Table 2 c
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	cis-1,2-DCE (µg/l)	trans-1,2-DCE (µg/l)	1,2-Dichloro-propane (µg/l)	cis-1,3-Dichloro-propene (µg/l)	trans-1,3-Dichloro-propene (µg/l)	Methylene chloride (µg/l)	1,1,2,2-Tetrachloro-ethane (µg/l)	Tetrachloro-ethene (PCE) (µg/l)	Trichloro-trifluoro-ethane (µg/l)	1,1,1-Trichloro-ethane (µg/l)	1,1,2-Trichloro-ethane (µg/l)	Trichloro-ethene (TCE) (µg/l)
MW-1												
9/15/1989	--	--	--	--	--	--	--	2.7	--	--	--	--
1/23/1990	--	--	--	--	--	--	--	2.1	--	--	--	--
4/19/1990	--	--	--	--	--	--	--	2.2	--	--	--	--
7/17/1990	--	--	--	--	--	--	--	1.7	--	--	--	--
10/16/1990	--	--	--	--	--	--	--	2.0	--	--	--	--
1/15/1991	--	--	--	--	--	--	--	2.1	--	--	--	--
4/12/1991	--	--	--	--	--	--	--	2.0	--	--	--	--
7/15/1991	--	--	--	--	--	--	--	1.8	--	--	--	--
7/14/1992	--	--	--	--	--	--	--	1.4	--	--	--	--
7/14/1993	--	--	--	--	--	--	--	0.95	--	--	--	--
7/7/1994	--	--	--	--	--	--	--	0.83	--	--	--	--
7/19/1995	--	--	--	--	--	--	--	0.52	--	--	--	--
7/11/1996	--	--	--	--	--	--	--	0.73	--	--	--	--
7/21/1997	--	--	--	--	--	--	--	0.70	--	--	--	--
8/31/1999	--	--	--	--	--	--	--	ND	--	--	--	--
7/16/2001	--	--	--	--	--	--	--	ND	--	--	--	--
7/12/2002	--	--	--	--	--	--	--	ND<0.60	--	--	--	--
7/10/2003	--	--	--	--	--	--	--	ND<0.50	--	--	--	--
7/29/2004	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5
9/30/2005	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	9.1	ND<0.50	ND<0.50	ND<0.50
9/26/2006	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	7.0	ND<0.50	ND<0.50	ND<0.50
9/27/2007	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	4.3	ND<0.50	ND<0.50	ND<0.50
9/17/2008	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<0.50	ND<0.50	5.4	ND<0.50	ND<0.50	ND<0.50

TRC

Table 2 d
ADDITIONAL HISTORIC ANALYTICAL RESULTS
Former 76 Station 3538

Date Sampled	Trichloro-fluoro-methane (µg/l)	Vinyl chloride (µg/l)
MW-1		
7/29/2004	ND<0.5	ND<0.5
9/30/2005	ND<0.50	ND<0.50
9/26/2006	ND<0.50	ND<0.50
9/27/2007	ND<0.50	ND<0.50
9/17/2008	ND<0.50	ND<0.50

APPENDIX D

Soil and Groundwater Analytical Data - 2006

Table 1

RESULTS OF LABORATORY ANALYSIS OF SOIL SAMPLES
Former 76 Service Station 3538
411 West MacArthur
Oakland, California

Sample Number	Sample Date	Depth (fbg)	TPH-g (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2 DCA (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
			EPA Method 8260B													6061B
SB - 1 @ 5'	3/27/2006	5.0	<0.97	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	—
SB - 1 @ 9'	3/27/2006	9.0	2.8	<0.0048	<0.0048	<0.0048	<0.0097	<0.0048	<0.0097	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.48	—
SB - 2 @ 5'	3/27/2006	5.0	<0.97	<0.0049	<0.0049	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	—
SB - 2 @ 9'	3/27/2006	9.0	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	—
SB - 3 @ 14'	3/27/2006	14.0	1.3	0.11	<0.0046	0.061	0.055	0.64	0.19	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.49	—
SB - 3 @ 16'	3/27/2006	16.0	6,100	<9.7	53	86	420	<9.7	<19	<9.7	<9.7	<9.7	<9.7	<9.7	<190	—
SB - 4 @ 5'	3/28/2006	5.0	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	—
SB - 4 @ 15'	3/28/2006	15.0	<0.92	<0.0046	<0.0046	<0.0046	<0.0092	<0.0046	<0.0092	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	—
SB - 5 @ 9'	3/28/2006	9.0	<0.93	<0.0046	<0.0046	<0.0046	<0.0093	<0.0046	<0.0093	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.46	—
SB - 5 @ 13'	3/28/2006	13.0	<0.93	<0.0047	<0.0047	<0.0047	<0.0093	<0.0047	<0.0093	<0.0046	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	—
Composite	3/28/2006	na	<0.95	<0.0047	0.013	0.0051	0.023	0.037	0.073	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.47	15

Notes:

TPPH = total purgeable petroleum hydrocarbons
TBA = tertiary butyl alcohol
MTBE = methyl tertiary butyl ether
DIPE = di-isopropyl ether
ETBE = ethyl tertiary butyl ether
na = not applicable
TAME = tertiary amyl methyl ether
1,2-DCA = 1,2-dichloroethane
EDB = ethylene dibromide
fbg = feet below grade
mg/kg = milligrams per kilogram
--- = not analyzed

Table 2

RESULTS OF LABORATORY ANALYSIS OF GRAB GROUNDWATER SAMPLES
Former 76 Service Station 3538
411 West MacArthur
Oakland, California

Sample Number	Sample Date	TPPH (µg/kg)	Benzene (µg/kg)	Ethyl-benzene (µg/kg)	Toluene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	TBA (µg/kg)	TAME (µg/kg)	DIPE (µg/kg)	ETBE (µg/kg)	EDB (µg/kg)	1,2 DCA (µg/kg)	Ethanol (µg/kg)
		EPA 8260B												
SB - 1W	3/27/2006	120	11	<0.50	<0.50	<1.0	130	28	<0.50	<1.0	<0.50	<0.50	<0.50	<100
SB - 2W	3/27/2006	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<100
SB - 3W	3/27/2006	13,000	510	470	1,400	2,600	340	57	<5.0	<10	<5.0	<5.0	<5.0	<100
SB - 4W	3/28/2006	<50	<0.50	<0.50	<0.50	<1.0	3.4	<5.0	<0.50	<1.0	<0.50	<0.50	<0.50	<100
SB - 5W	3/28/2006	3,000	44	63	1.2	30	53	17	<0.50	<1.0	<0.50	<0.50	<0.50	<100

Notes:

TPPH = total purgeable petroleum hydrocarbons
TBA = tertiary butyl alcohol
MTBE = methyl tertiary butyl ether
DIPE = di-isopropyl ether
ETBE = ethyl tertiary butyl ether
TAME = tertiary amyl methyl ether
1,2-DCA = 1,2-dichloroethane
EDB = ethylene dibromide
ft MSL = feet above mean sea level
ft boc = feet below top of casing
µg/L = micrograms per liter
-- = not analyzed

APPENDIX E

Boring Logs

BORING LOG

Project No. KEI-P89-0703	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal, Oakland/MacArthur	Well Head Elevation N/A	Date Drilled 9/7/89
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement Sand and Gravel: fill.
11/17/22		5		Clay, high plasticity, stiff, moist, very dark grayish brown.
				Gravelly clay with sand, stiff, moist, dark yellowish brown.
32/17/20		10		Sand clay, high plasticity, stiff, moist, olive, trace gravel.
			CH	Clay, high plasticity, very stiff, moist, pale olive, with greenish gray stained root holes.
13/17/19		15		Sandy clay, moderate to high plasticity, stiff, moist, olive to light yellowish brown.
10/17/20	▼		SC	Clayey sand, dense, very moist to wet, yellowish brown.
		20		

BORING LOG

Project No. KEI-P89-0703	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal, Oakland/MacArthur	Well Head Elevation N/A	Date Drilled 9/7/89
Boring No. MW1	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
			SC	Clayey sand, as above.
		25	SP	Poorly graded sand, yellowish brown.
			CH	Clay, high plasticity, very stiff, moist, yellowish brown.
		30		
		35		
		40		TOTAL DEPTH 29'

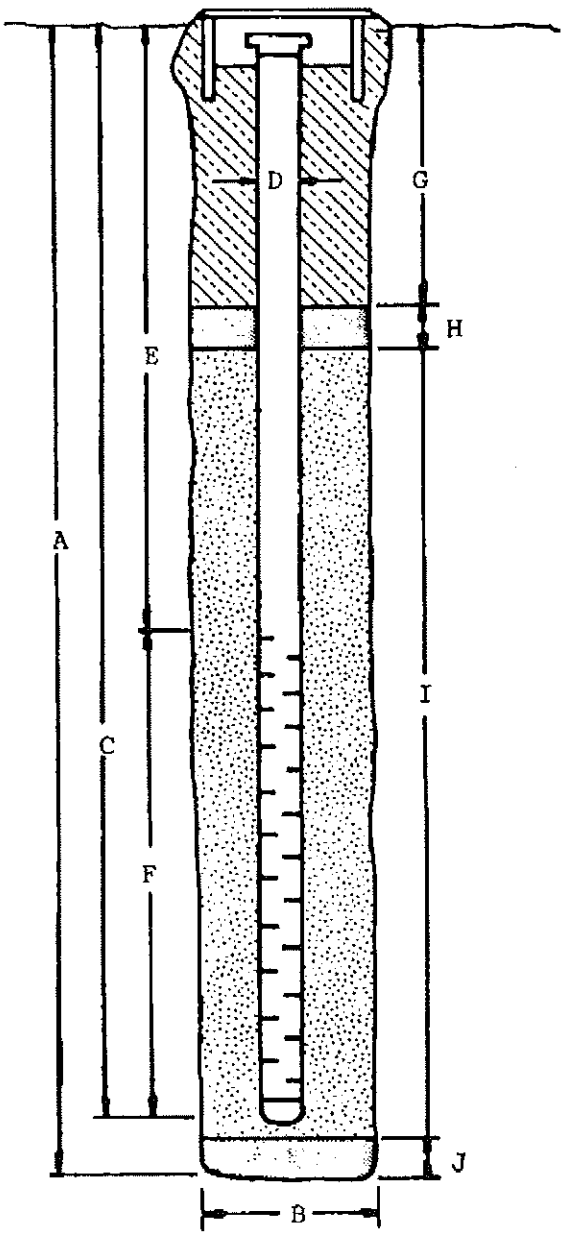
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - Oakland, MacArthur BORING/WELL NO. MW1

PROJECT NUMBER: KEI-P89-0703

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 29'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 29'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375" ID = 2.067"

E. Depth to Perforations: 5'

F. Perforated Length: 24'

Perforation Type: Machined Slot

Perforation Size: 0.020"

G. Surface Seal: 3'

Seal Material: Concrete

H. Seal: 1'

Seal Material: Bentonite

I. Gravel Pack: 25'

Pack Material: RMC Lonestar Sand

Size: #3

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P89-0703	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal, Oakland/MacArthur	Well Head Elevation N/A	Date Drilled 9/6/89
Boring No. MW2	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		Concrete Pavement
				Sand and Gravel: Fill
			CH	Clay, high plasticity, with silt, firm to stiff, moist, dark olive gray, black from 1.5 to 4 feet.
9/14/21		5		
			GC	Clayey gravel with sand, dense, moist, yellowish brown, gravel to 3/4".
13/15/28		10		
			CH	Sandy clay, high plasticity, 15-45% sand, stiff, moist, light yellowish brown and greenish gray, mottled, lensed with clayey sand.
9/15/19				
10/15/23			SC	Clayey sand, dense to very dense, moist, olive and greenish gray.
8/10/15		15		
9/12/16			CH	Silty clay, moderate to high plasticity, firm, moist, olive.
	▼		SW	Well graded sand with gravel, dense, wet, brown, silty from 19.5 feet.
13/37/46		20		

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0703	9" 2"	D.L.
Project Name Unocal, Oakland/MacArthur	**Well Head Elevation** N/A	**Date Drilled** 9/6/89
Boring No. MW2	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
			GP-GM	Poorly graded gravel with silt and sand, very dense, wet, dark yellowish brown.
25/37/45		25	GP	Poorly graded gravel with sand, very dense, wet, dark, yellowish brown.
			CH	Clay, high plasticity, trace sand, very stiff, moist, yellowish brown.
25/29/35		30		
		35		
		40		TOTAL DEPTH 30.5'

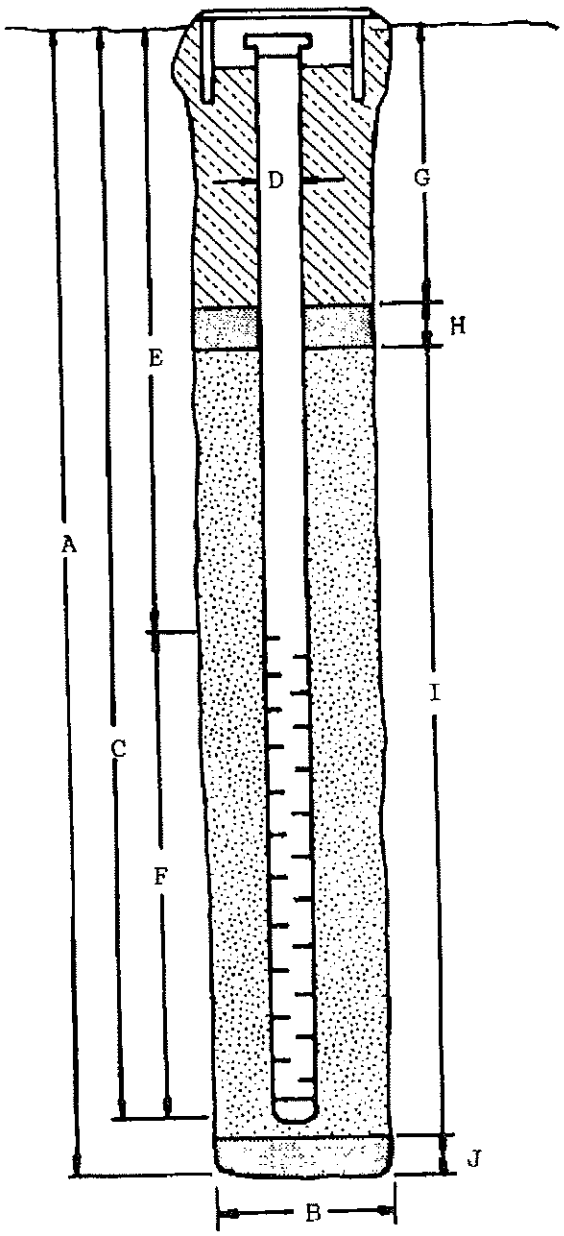
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - Oakland, MacArthur BORING/WELL NO. MW2

PROJECT NUMBER: KEI-P89-0703

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 30'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 28.5'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375" ID = 2.067"

E. Depth to Perforations: 3.5'

F. Perforated Length: 25'

Perforation Type: Machined Slot

Perforation Size: 0.020"

G. Surface Seal: 2'

Seal Material: Concrete

H. Seal: 1'

Seal Material: Bentonite

I. Gravel Pack: 27'

Pack Material: RMC Lonestar Sand

Size: #3

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No. KEI-P89-0703	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal, Oakland/MacArthur	Well Head Elevation N/A	Date Drilled 9/7/89
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		Concrete Pavement
9/15/21		5	CH	Clay, high plasticity, with silt, stiff, moist, dark olive gray, very dark grayish brown above 4'.
14/17/23		10		Clay, high plasticity, very stiff, moist, pale olive, with dark greenish gray stained root holes.
15/23/33		15	CL	Sandy clay, low to moderate plasticity, 25-40% sand, stiff, moist, olive and greenish gray, mottled, lensed with clayey sand.
10/17/24	▼		CH	Sandy clay, moderate to high plasticity, stiff, moist, olive.
		20		

BORING LOG

Project No. KEI-P89-0703	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal, Oakland/MacArthur	Well Head Elevation N/A	Date Drilled 9/7/89
Boring No. MW3	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
				Sandy clay, as above.
37/50-5-1/2"			GP-GC	Poorly graded gravel with clay and sand, very dense, wet, dark yellowish brown.
		25	GC	Clayey gravel, very dense, moist, yellowish brown.
		30		
		35		
		40		TOTAL DEPTH 29'

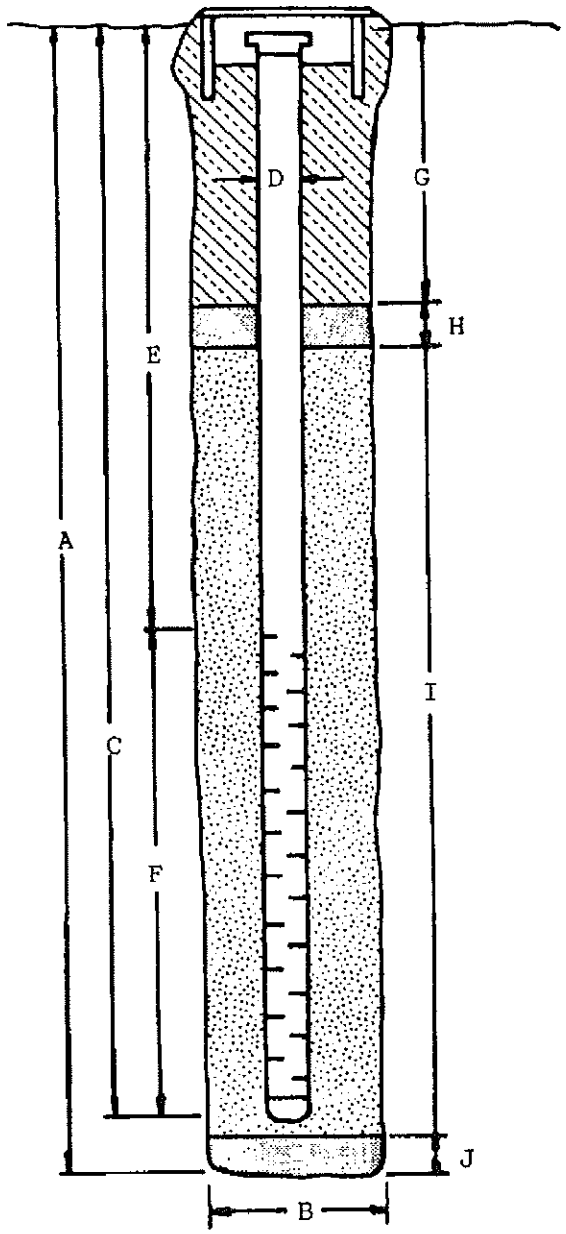
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - Oakland, MacArthur BORING/WELL NO. MW3

PROJECT NUMBER: KEI-P89-0703

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 29'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 29'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375" ID = 2.067"

E. Depth to Perforations: 5'

F. Perforated Length: 24'

Perforation Type: Machined Slot

Perforation Size: 0.020"

G. Surface Seal: 3'

Seal Material: Concrete

H. Seal: 1'

Seal Material: Bentonite

I. Gravel Pack: 25'

Pack Material: RMC Lonestar Sand

Size: #3

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

BORING LOG

Project No.	Boring & Casing Diameter	Logged By
KEI-P89-0703	9" 2"	D.L.
Project Name Unocal, Oakland/MacArthur	**Well Head Elevation** N/A	**Date Drilled** 9/6/89
Boring No. MW4	**Drilling Method** Hollow-stem Auger	**Drilling Company** EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
		0		A.C. Pavement Sand and Gravel: Fill
12/16/25		5		Clay, high plasticity, very stiff, moist, very dark grayish brown, brown below 5'.
				Gravelly clay with sand, very stiff, moist, dark yellowish brown.
19/25/30		10	CH	Clay, high plasticity, very stiff, slightly moist, light yellowish brown.
14/17/29		15		Silty clay, high plasticity, 10-15%, fine sand, very stiff, moist, pale olive.
15/15/23	▼		SM	Silty sand, dense to very dense, very moist to wet, light yellowish brown.
		20	SW	Well graded sand, trace to 10%

BORING LOG

Project No. KEI-P89-0703	Boring & Casing Diameter 9" 2"	Logged By D.L.
Project Name Unocal, Oakland/MacArthur	Well Head Elevation N/A	Date Drilled 9/6/89
Boring No. MW4	Drilling Method Hollow-stem Auger	Drilling Company EGI

Penetration blows/6"	G. W. level	Depth (ft) Samples	Stratigraphy USCS	Description
			SW	fines, dense, wet, dark yellowish brown.
		25	GP-GC	Poorly graded gravel with clay and sand, dense, wet, dark yellowish brown, clay content, increasing with depth.
			CH	Gravelly clay, high plasticity, 5-10% sand, very stiff, moist, dark yellowish brown.
		30		
		35		
		40		TOTAL DEPTH 29'

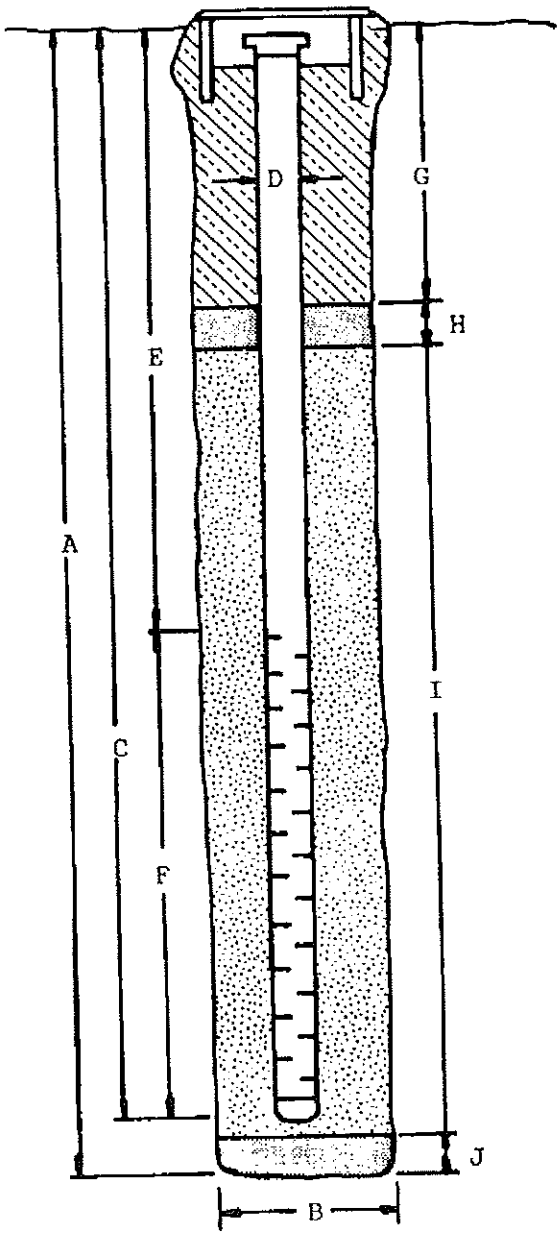
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal - Oakland, MacArthur BORING/WELL NO. MW4

PROJECT NUMBER: KEI-P89-0703

WELL PERMIT NO.:

Flush-mounted Well Cover



A. Total Depth: 29'

B. Boring Diameter*: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 29'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375" ID = 2.067"

E. Depth to Perforations: 5'

F. Perforated Length: 24'

Perforation Type: Machined Slot

Perforation Size: 0.020"

G. Surface Seal: 3'

Seal Material: Concrete

H. Seal: 1'

Seal Material: Bentonite

I. Gravel Pack: 25'

Pack Material: RMC Lonestar Sand

Size: #3

J. Bottom Seal: None

Seal Material: N/A

*Boring diameter can vary from 8-1/4" to 9" depending on bit wear.

KAPREALIAN ENGINEERING
INCORPORATED

MAJOR DIVISIONS		SYMBOLS	TYPICAL SOIL DESCRIPTIONS
GRAVELS (More than 1/2 of coarse fraction > No. 4 sieve size)		GW	Well graded gravels or gravel - sand mixtures, little or no fines
		GP	Poorly graded gravels or gravel - sand mixtures, little or no fines
		GM	Silty gravels, gravel - sand - silt mixtures
		GC	Clayey gravels, gravel - sand - clay mixtures
SANDS (More than 1/2 of coarse fraction < No. 4 sieve size)		SW	Well graded sands or gravelly sands, little or no fines
		SP	Poorly graded sands or gravelly sands, little or no fines
		SM	Silty sands, sand - silt mixtures
		SC	Clayey sands, sand - clay mixtures
SILTS & CLAYS LL < 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS & CLAYS LL > 50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts
HIGHLY ORGANIC SOILS		Pt	Peat and other highly organic soils
DUAL (TRANSITION) SOILS			Soil characterisitics are transitional between the soil classifications listed above

CLASSIFICATION CHART (Unified Soil Classification System)

BORING LOG

Project No. KEI-P89-0703	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG W.W. CEG 1633
Project Name Unocal S/S #3538 411 West MacArthur Blvd., Oakland	**Well Cover Elevation**	**Date Drilled** 11/18/92
Boring No. MW5	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Six inches of concrete pavement over sand and gravel base.
8/13/17		5	CL	Silty clay, estimated at 35% silt, moist, black, strong brown staining in pores. Silty clay, estimated at 15% silt, 5% sand, and trace gravel to 3/8 inch in diameter, hard, moist, yellowish brown (10YR 5/4) and light brownish gray (10YR 6/2) mottled, trace pores.
8/11/16		10	ML	Clayey silt, estimated at 15-20% clay and 5% fine-grained sand, very stiff, moist, pale yellow (2.5Y 7/3), trace pores.
6/10/17		15		Silt, estimated at 5-10% clay, very stiff, moist to very moist, pale yellow (2.5Y 7/3) with slight yellowish brown (10YR 5/6) mottling, trace sand and pores. Silt, trace clay, hard, very moist, very pale brown (10YR 7/3) and strong brown (7.5YR 5/6) mottled, slightly micaceous.
10/20/24		20	CL	Silty clay, estimated at 35-40% silt, hard, moist, very pale brown (10YR 5/4) mottled.
8/13/25	▼		ML	Clayey silt, estimated at 15% clay and 5-10% sand, hard, very moist, pale yellow (2.5Y 7/3).

BORING LOG

Project No. KEI-P89-0703	**Boring Diameter** 9" / **Casing Diameter** 2"	**Logged By** JGG W.W. CEG 1633
Project Name Unocal S/S #3538 411 West MacArthur Blvd., Oakland	**Well Cover Elevation**	**Date Drilled** 11/18/92
Boring No. MW5	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Stratigraphy USCS	Description
			ML	Clayey silt, estimated at 15% clay and 5-10% sand, hard, very moist, pale yellow (2.5Y 7/3).
9/20/36		25		Clayey silt, estimated at 20-25% clay and 5% sand, hard, moist, very pale brown (10YR 7/3).
			CL	Silty clay, estimated at 15-20% fine-grained silt and 5% sand, hard, moist, very pale brown (10YR 7/3), trace organic matter.
13/19/28		30		Silty clay, estimated at 15% silt, 5-10% sand, and trace gravel, hard, moist, very pale brown (10YR 7/3).
				TOTAL DEPTH: 30'
		35		
		40		

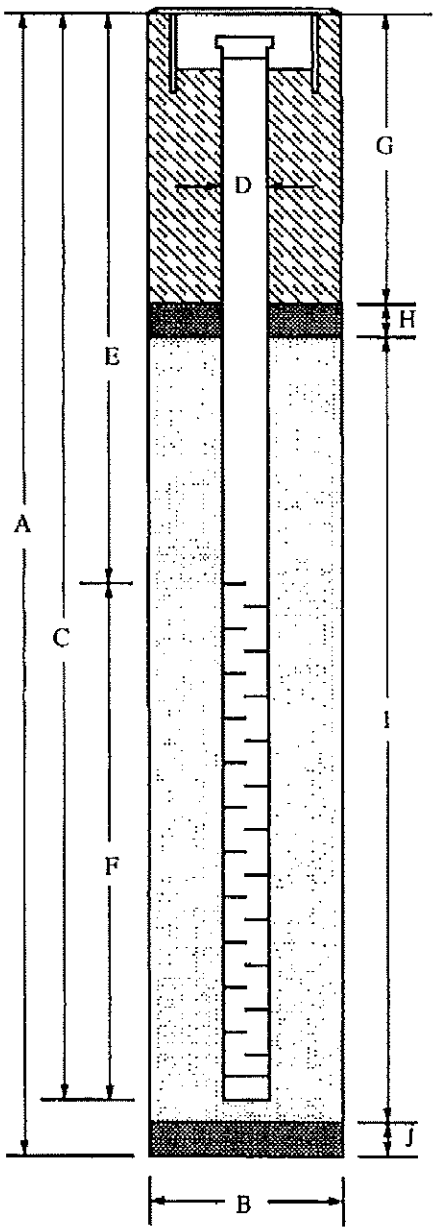
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal S/S #3538, 411 West MacArthur Blvd., Oakland WELL NO. MW5

PROJECT NUMBER: KEI-P89-0703

WELL PERMIT NO.: 91185

Flush-mounted Well Cover



A. Total Depth: 30'

B. Boring Diameter: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 30'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 13'

F. Perforated Length: 17'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 9'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Filter Pack: 19'

Pack Material: RMC Lonestar Sand

Size: 2/12

J. Bottom Seal: None

Seal Material: N/A

BORING LOG

Project No. KEI-P89-0703	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG W.W. CEG 1633
Project Name Unocal S/S #3538 411 West MacArthur Blvd., Oakland	**Well Cover Elevation**	**Date Drilled** 11/18/92
Boring No. MW6	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
		0		Fifteen inches of asphalt pavement.
				Silty clay, estimated at 20% silt and trace sand, moist, very dark gray.
18/30/34		5		Silty clay, estimated at 20-25% silt and 5% sand, hard, moist, greenish gray (5GY 5/1).
				Silty clay with sand and gravel, estimated at 15-20% silt, 15% gravel to 2 inches in diameter, and 10-15% sand, hard, moist, greenish gray (5GY 5/1) with strong brown (7.5YR 4/6) staining.
			CL	
19/23/35		10		Silty clay, estimated at 15% silt and trace sand, hard, moist, greenish gray (5GY 6/1) with slight light yellowish brown (10YR 6/4) mottling.
13/22/27		15		Silty clay, estimated at 20% silt, hard, moist, light yellowish brown (10YR 6/4) with slight light gray (5Y 7/1) staining in pores, trace organic matter.
				Clayey silt, estimated at 15% clay and 5-10% very fine-grained sand, hard, very moist, light yellowish brown (10YR 6/4).
12/18/20	▼	20	ML	

BORING LOG

Project No. KEI-P89-0703	**Boring Diameter** 9" **Casing Diameter** 2"	**Logged By** JGG W.W. CEG1633
Project Name Unocal S/S #3538 411 West MacArthur Blvd., Oakland	**Well Cover Elevation**	**Date Drilled** 11/18/92
Boring No. MW6	**Drilling Method** Hollow-stem Auger	**Drilling Company** Woodward Drilling Co.

Penetration blows/6"	G. W. level	Depth (feet) Samples	Strati-graphy USCS	Description
7/10/13		25	ML	Clayey silt, estimated at 15% clay and trace sand, very stiff, very moist, light yellowish brown.
			CL	Silty clay, estimated at 20-30% slightly elastic silt, very stiff, moist, very pale brown.
8/15/21		30		Silty clay, estimated at 20-25% silt and trace gravel, hard, moist, light yellowish brown (10YR 6/4).
				TOTAL DEPTH: 30'
		35		
		40		

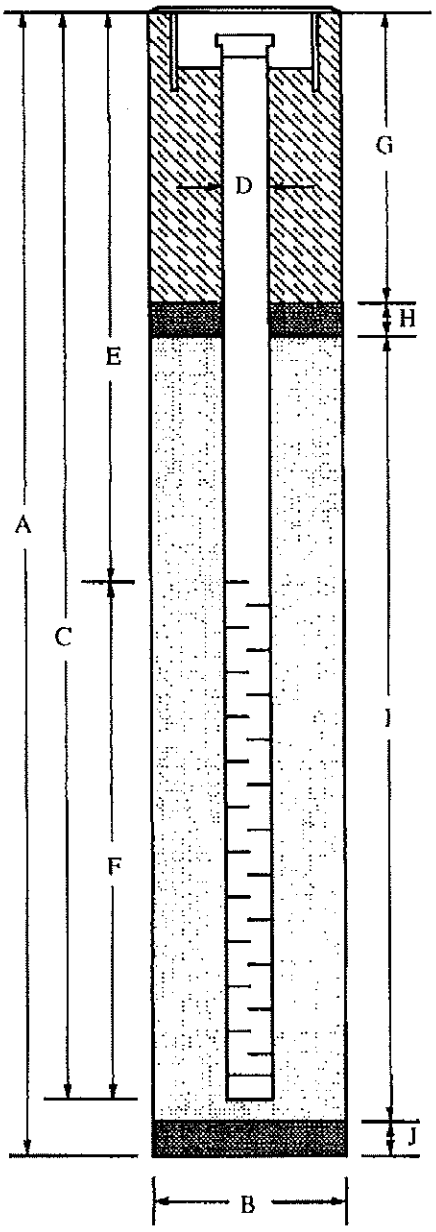
WELL COMPLETION DIAGRAM

PROJECT NAME: Unocal S/S #3538, 411 West MacArthur Blvd., Oakland WELL NO. MW6

PROJECT NUMBER: KEI-P89-0703

WELL PERMIT NO.: 91185

Flush-mounted Well Cover



A. Total Depth : 30'

B. Boring Diameter: 9"

Drilling Method: Hollow Stem Auger

C. Casing Length: 30'

Material: Schedule 40 PVC

D. Casing Diameter: OD = 2.375"

ID = 2.067"

E. Depth to Perforations: 13'

F. Perforated Length: 17'

Perforation Type: Machined Slot

Perforation Size: 0.010"

G. Surface Seal: 9'

Seal Material: Neat Cement

H. Seal: 2'

Seal Material: Bentonite

I. Filter Pack: 19'

Pack Material: RMC Lonestar Sand

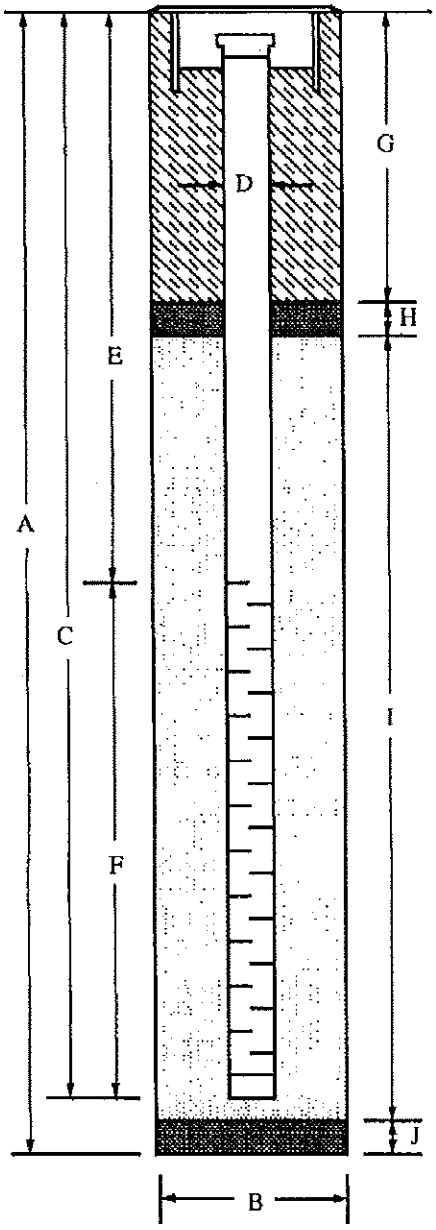
Size: 2/12

J. Bottom Seal: None

Seal Material: N/A

WELL COMPLETION DIAGRAM
(SCHEMATIC)

Flush-mounted Well Cover



WELL DETAILS*

1. Well will be terminated 10 to 15 feet into the first encountered ground water, unless an aquitard five feet or greater in thickness is encountered below the water table, in which case the bottom of the boring will be backfilled with bentonite pellets and the well terminated at the top of this aquitard [A].

2. Boring diameter [B] is 8 inches for 2 inch wells, 10 inches for 4 inch wells, and 12 inches for 6 inch wells.

3. Perforated interval [F] will extend from bottom of casing to five feet above the first encountered ground water table (unless water <5 feet deep).

4. Schedule 40 PVC casing, 2 inch in diameter [D], will be used. Screen is 0.020 or 0.010 inch factory machined slots, depending on filter pack grain size.

5. Filter pack will be placed from bottom of casing to two feet above perforated interval [I]. (Bottom seal [J] is not installed unless required.) One to two feet of bentonite [H] will be placed above the filter pack. Concrete grout [G] will be placed from top of bentonite seal to the surface (unless modified due to shallow water). Blank casing [E] will extend from the top of the perforated casing to the top of the hole.

6. The well will be installed with a waterproof cap, padlock and a flush-mounted well cover.

* See text for additional information.

PROJECT NO.: 42-0142-09
LOCATION: 76 Station #3538
411 W. MacArthur Blvd.
Oakland, California

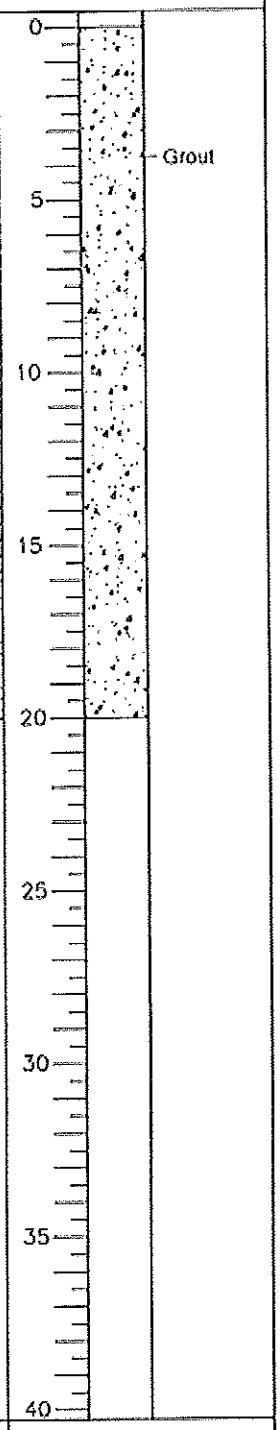
DATE DRILLED: 3/27/06
LOGGED BY: J. Kearns
APPROVED BY: K. Woodburne, RG
DRILLING CO.: Woodward Drilling

NORTHING: NOT SURVEYED
EASTING: NOT SURVEYED
ELEVATION: NOT SURVEYED

DRILLING METHOD: 2-inch Direct Push
SAMPLER TYPE: 4-foot Continuous Core
TOTAL DEPTH: 20.00 feet
DEPTH TO WATER: 16.25 feet

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Asphalt concrete.	Asphalt	
4.0		3.0/3.0		5	CLAY (CL): Dark brown (10YR 3/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, dry. - @ 6': color change to black (2.5/2.5/1), moist.	CL	
12.0		4.0/4.0		10	- @ 9': color change to dark gray (5Y 4/1), 95% fines, 5% fine-grained sand. - @ 10': color change to olive gray (5Y 5/2).		
0.2		2.0/4.0		15	SAND (SW): Olive (5Y 4/3), 10% fines, 90% fine- to coarse-grained sand, loose, moist. CLAY (CL): Light olive brown (2.5Y 5/6), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist.	SW CL	
1.1		4.0/4.0		20	SAND (SW): Dark grayish brown (2.5Y 4/2), 10% fines, 90% fine- to coarse-grained sand, loose, wet.	SW	
				25			
				30			
				35			
				40			

BORING BACKFILL DETAIL



TRC

LOG OF EXPLORATORY BORING

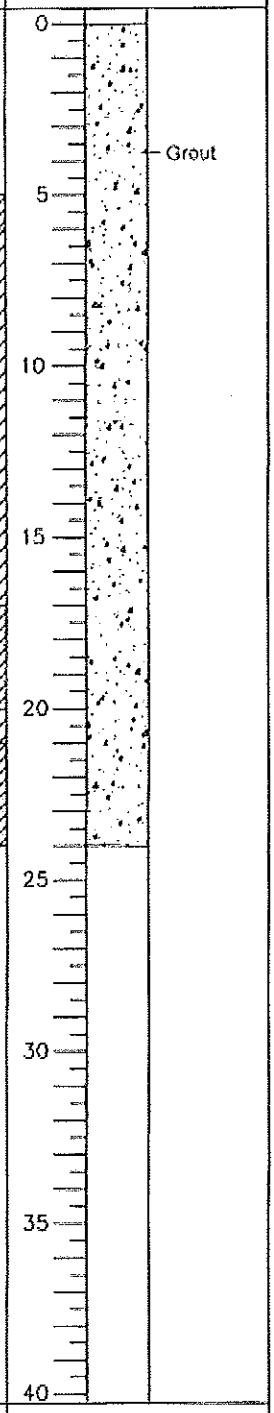
SB-1
PAGE 1 OF 1

PROJECT NO.: 42-0142-09	DATE DRILLED: 3/27/06	NORTHING: NOT SURVEYED
LOCATION: 76 Station #3538	LOGGED BY: J. Kearns	EASTING: NOT SURVEYED
411 W. MacArthur Blvd.	APPROVED BY: K. Woodburne, RG	ELEVATION: NOT SURVEYED
Oakland, California	DRILLING CO.: Woodward Drilling	

DRILLING METHOD: 2-inch Direct Push
SAMPLER TYPE: 4-foot Continuous Core
TOTAL DEPTH: 24.00 feet
DEPTH TO WATER: 16.25 feet

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0			
1.8		3.0/3.0		5	CLAYEY SAND (SC): Brown (10YR 4/3), 20% fines, 80% fine- to coarse-grained sand, loose, moist.	SC	
0.2		4.0/4.0			CLAY (CL): Light olive brown (2.5Y 5/6), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist. - @ 9': color change to mottled light yellowish brown (2.5Y 6/3) and very dark gray (10YR 3/1). - @ 11': color change to mottled brown (10YR 3/3) and very dark grayish brown (10YR 3/2).	CL	
0.0		4.0/4.0		10			
		2.0/2.0		15	CLAYEY SAND (SC): Yellowish brown (10YR 5/8), 30% fines, 72% fine- to coarse-grained sand, loose, dry.	SC	
		2.0/2.0					
0.0		4.0/4.0		20	CLAY (CL): Yellowish brown (10YR 5/4), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, wet.	CL	
					SAND (SC): 10% fines, 90% fine- to coarse-grained sand, loose.	SC	
				25			
				30			
				35			
				40			

BORING BACKFILL DETAIL



TRC

LOG OF EXPLORATORY BORING

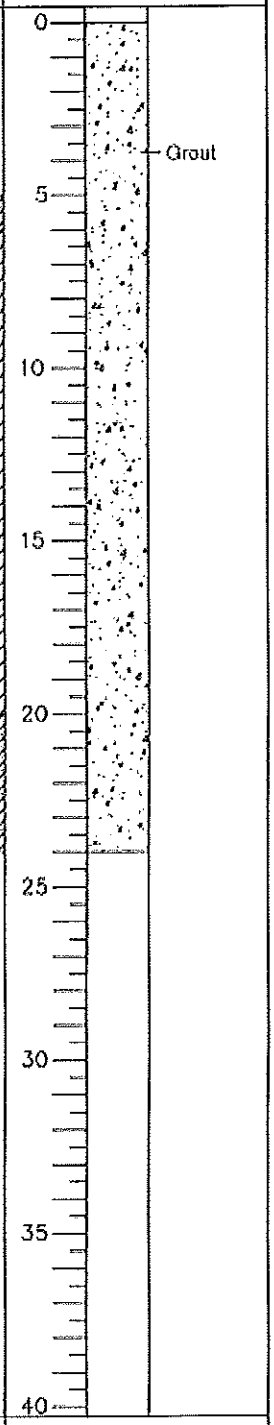
SB-2
PAGE 1 OF 1

PROJECT NO.: 42-0142-09	DATE DRILLED: 3/27/06	NORTHING: NOT SURVEYED
LOCATION: 76 Station #3538	LOGGED BY: J. Kearns	EASTING: NOT SURVEYED
411 W. MacArthur Blvd.	APPROVED BY: K. Woodburne, RG	ELEVATION: NOT SURVEYED
Oakland, California	DRILLING CO.: Woodward Drilling	

DRILLING METHOD: 2-inch Direct Push
SAMPLER TYPE: 4-foot Continuous Core
TOTAL DEPTH: 24.00 feet
DEPTH TO WATER: 16.69 feet

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0			
13.3		3.0/3.0		5	CLAYEY SAND (SC): Brown (10YR 3/3), 10% fines, 90% fine- to coarse-grained sand, loose, dry.	SC	
6.9		4.0/4.0		10	CLAY (CL): Dark brown (10YR 3/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist. - @ 9': color change to mottled light yellowish brown (10YR 4/4) and dark yellowish brown (10YR 4/6), high plasticity. - @ 11': low plasticity.	CL	
105		2.5/4.0		15	- @ 14': hydrocarbon odor.		
1596		3.0/4.0			- @ 19': color change to mottled dusky red (10YR 3/2) and dark brown, hydrocarbon odor.		
0.0		4.0/4.0		20	CLAYEY SAND (SC): Mottled dark greenish gray (GLEY1 6/1) and yellowish brown (10YR 5/6).	SC	
				25			
				30			
				35			
				40			

BORING BACKFILL DETAIL



TRC

LOG OF EXPLORATORY BORING

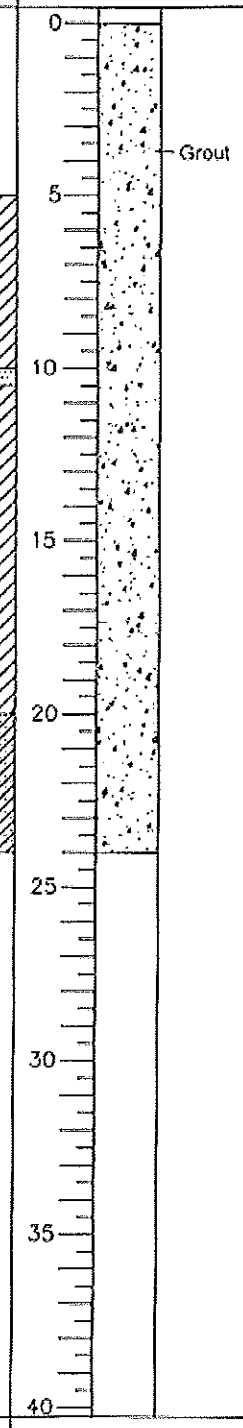
SB-3
PAGE 1 OF 1

PROJECT NO.: 42-0142-09	DATE DRILLED: 3/28/06	NORTHING: NOT SURVEYED
LOCATION: 76 Station #3538	LOGGED BY: J. Kearns	EASTING: NOT SURVEYED
411 W. MacArthur Blvd.	APPROVED BY: K. Woodburne, RG	ELEVATION: NOT SURVEYED
Oakland, California	DRILLING CO.: Woodward Drilling	

DRILLING METHOD: 2-inch Direct Push
SAMPLER TYPE: 4-foot Continuous Core
TOTAL DEPTH: 24.00 feet
DEPTH TO WATER: 16.39 feet

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0			
8.3		3.0/3.0		5	CLAY (CL): Mottled brown (10YR 4/3) and black (10YR 2/1), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist.	CL	
4.0		3.5/4.0			- @ 9': color change to mottled dark gray (5Y 4/1) and dark yellowish brown (10YR 3/4).		
				10	SAND (SW): Very pale brown (10YR 7/3), 5% fines, 95% fine- to coarse-grained sand, loose, dry.	SW	
3.7		2.5/4.0			CLAY (CL): Brown (10YR 4/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, moist. - @ 12': color change to grayish brown (10YR 5/2). - @ 14': color change to mottled pale brown (10YR 6/3) and yellowish brown (10YR 5/6).	CL	
3.7		2.0/4.0		15			
2.7		2.0/4.0		20	CLAYEY SAND (SC): Mottled pale brown (10YR 6/3) and yellowish brown (10YR 5/6), 15% fines, 85% fine- to medium-grained sand, wet.	SC	
				25			
				30			
				35			
				40			

BORING BACKFILL DETAIL



TRC

LOG OF EXPLORATORY BORING

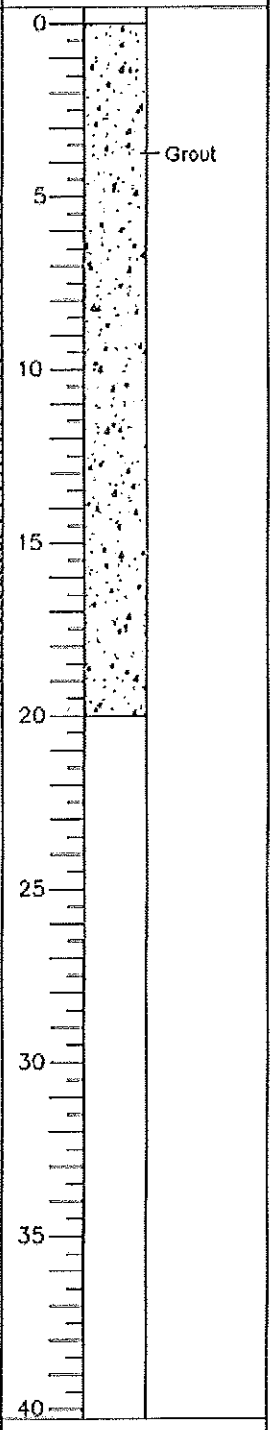
SB-4
PAGE 1 OF 1

PROJECT NO.: 42-0142-09	DATE DRILLED: 3/28/06	NORTHING: NOT SURVEYED
LOCATION: 76 Station #3538	LOGGED BY: J. Kearns	EASTING: NOT SURVEYED
411 W. MacArthur Blvd.	APPROVED BY: K. Woodburne, RG	ELEVATION: NOT SURVEYED
Oakland, California	DRILLING CO.: Woodward Drilling	

DRILLING METHOD: 2-Inch Direct Push
SAMPLER TYPE: 4-foot Continuous Core
TOTAL DEPTH: 20.00 feet
DEPTH TO WATER: 18.00 feet

PID/FID (ppm)	BLOWS PER 6 INCHES	RECOVERY	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0			
1.1		3.0/3.0		5	CLAY (CL): Brown (10YR 4/3), 90% fines, 10% fine- to coarse-grained sand, medium plasticity, wet.		
2.4		3.0/4.0			- @ 9': color change to dark grayish brown (2.5Y 4/2).	CL	
				10	- @ 10': color change to dark olive gray (5Y 3/2).		
1.8		4.0/4.0			CLAYEY SAND (SC): Dark olive gray (5Y 3/2), 15% fines, 85% fine- to coarse-grained sand, loose, wet.	SC	
					CLAY (CL): Mottled grayish brown (2.5Y 5/2) and dark yellowish brown (10YR 5/6), 90% fines, 10% fine- to medium- grained sand, wet.	CL	
				15	CLAYEY SAND (SC): Mottled grayish brown (2.5Y 5/2) and dark yellowish brown (10YR 5/6), 15% fines, 85% fine- to medium-grained sand, wet.		
2.3		3.0/4.0			- @ 19': color change to greenish gray (GLEY1 5/5GY).	SC	
				20			
				25			
				30			
				35			
				40			

BORING BACKFILL DETAIL



TRC

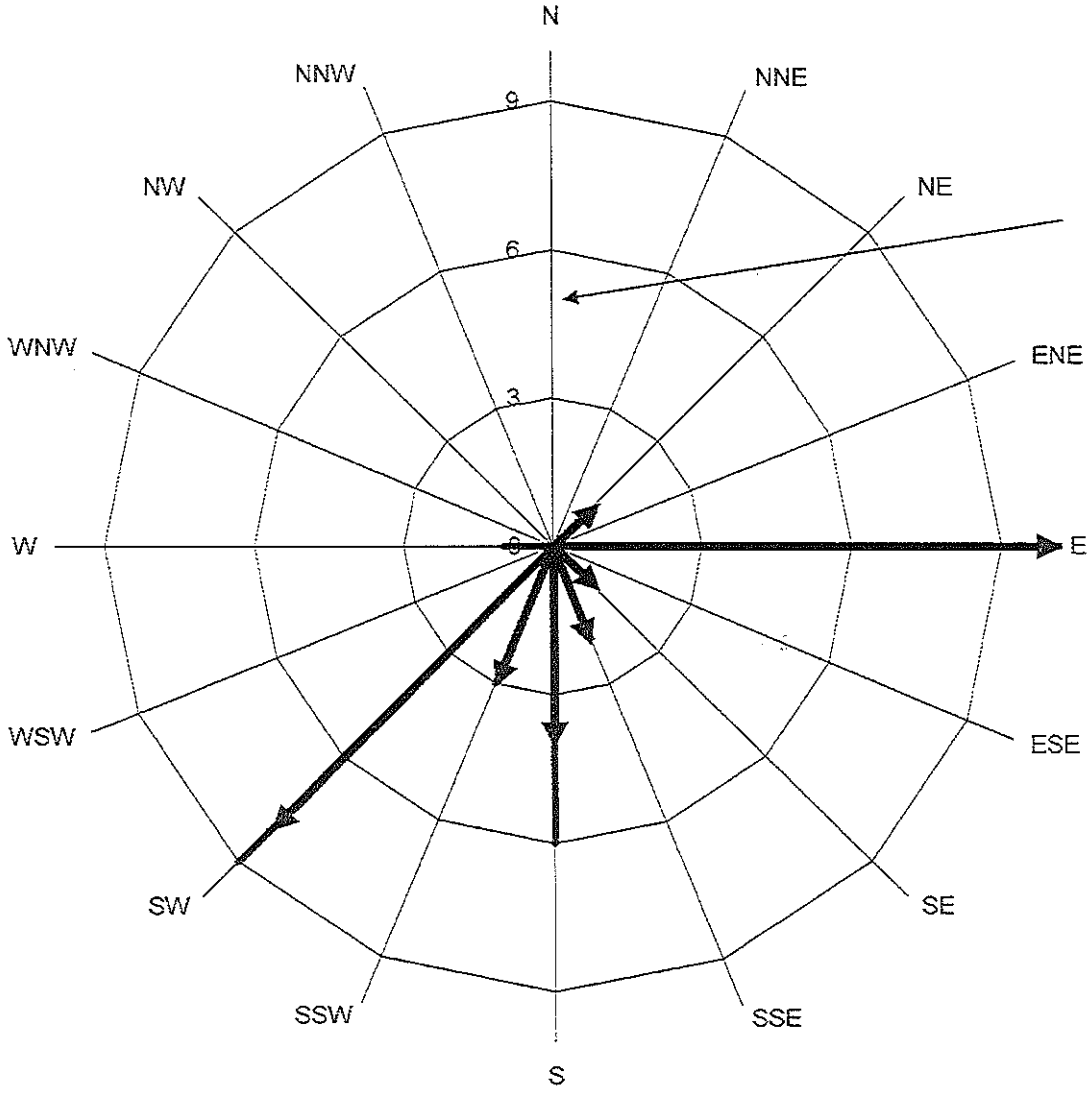
LOG OF EXPLORATORY BORING

SB-5
PAGE 1 OF 1

APPENDIX F

Groundwater Flow Rose Diagram and Historic Maps

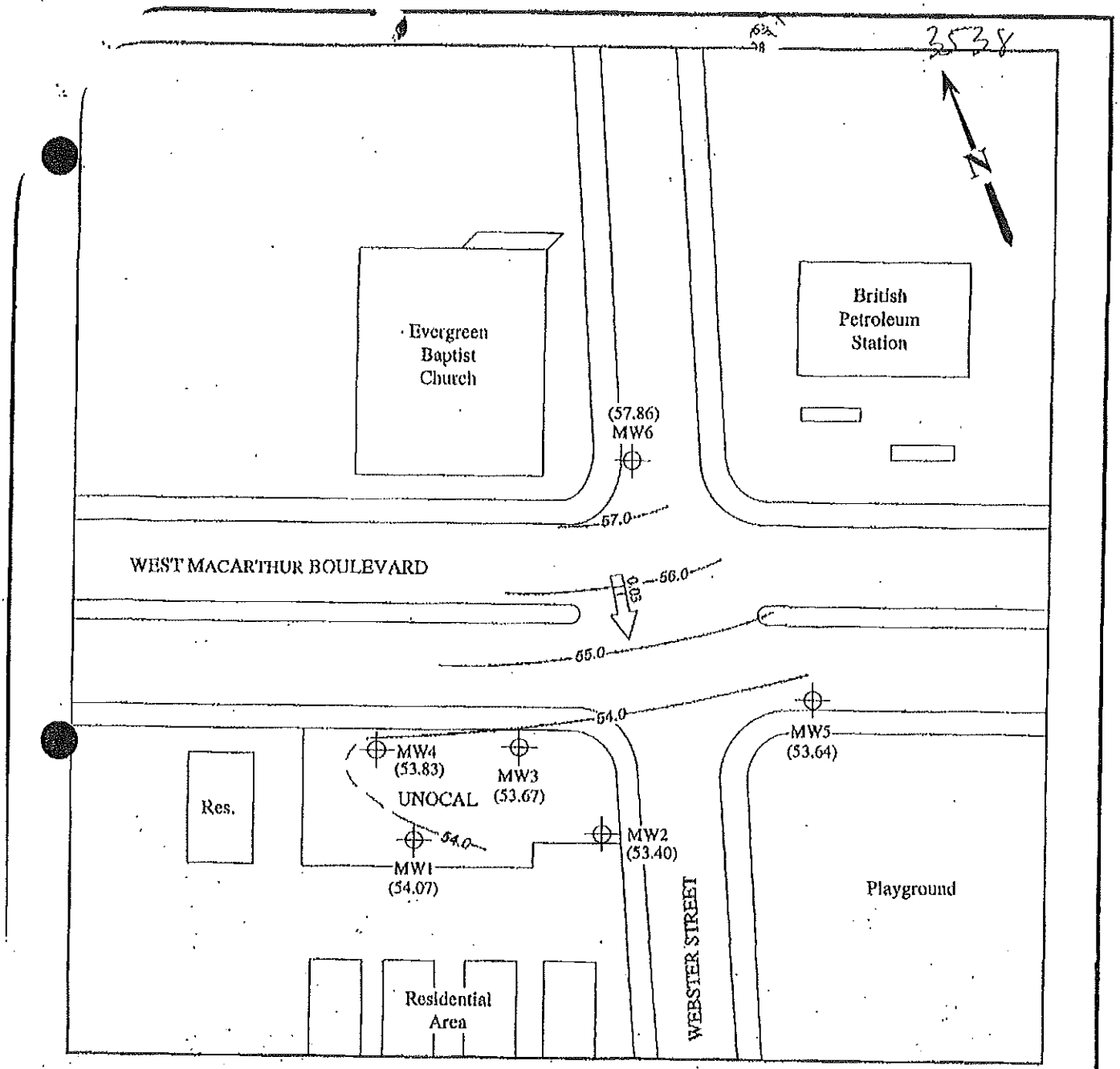
Historical Groundwater Flow Directions
for Tosco (76) Service Station No. 3538
February 1990 through March 2008



Number of monitoring events in which groundwater was reported to flow in a particular direction.

TRC

FIGURE 5



LEGEND

- Monitoring well
- ( ) Ground water elevation in feet above Mean Sea Level
- #.## Direction of ground water flow with approximate hydraulic gradient
- Contours of ground water elevation

0 60 120

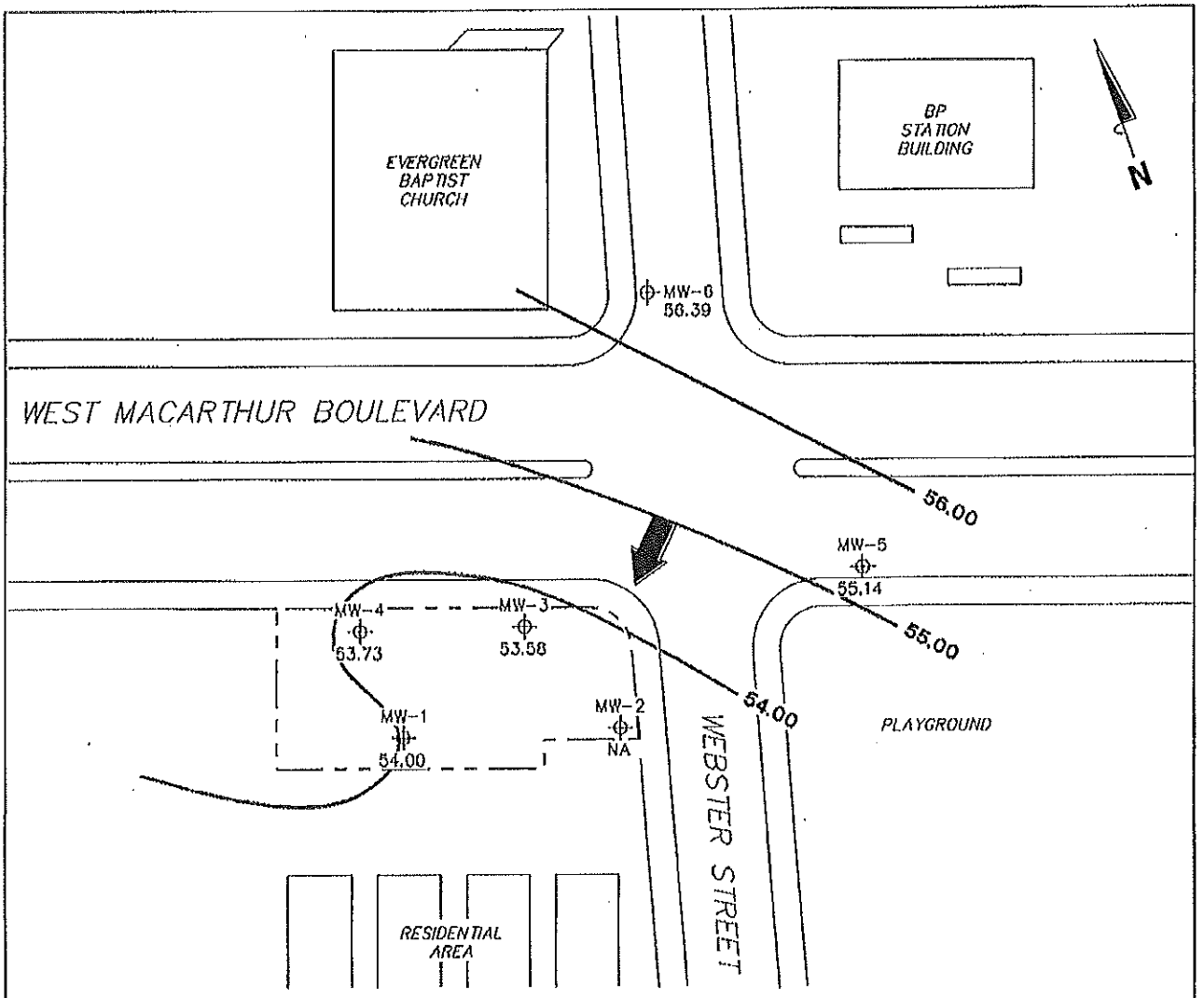
Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE JULY 11, 1996 MONITORING EVENT

mpds SERVICES, INCORPORATED

UNOCAL SERVICE STATION # 3538
411 W. MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

FIGURE
1



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level. UST = underground storage tank. NA = not analyzed, measured, or collected.

LEGEND

- MW-6 ⊕ Monitoring Well with Groundwater Elevation (feet)
- 56.00— Groundwater Elevation Contour
- ➡ General Direction of Groundwater Flow

GROUNDWATER ELEVATION CONTOUR MAP
July 29, 2004

Former 76 Station 3538
411 West MacArthur Boulevard
Oakland, California

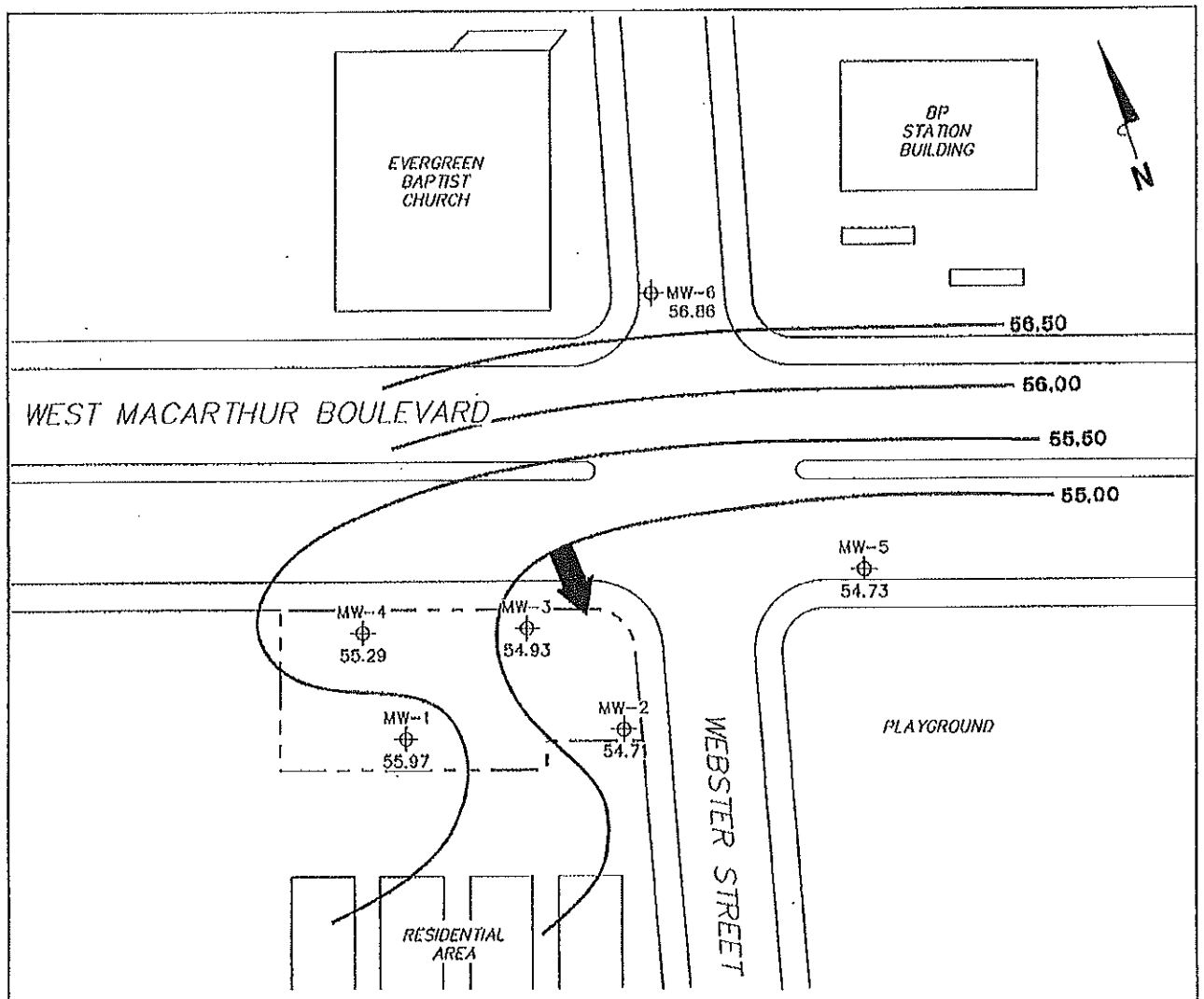
TRC

SCALE (FEET)
0 60

FIGURE 2

PS=1:1 3538-003

Graphics on Irvine-fs1(L:)\GRAPHICS\Projects By...\20-xxxx\20-0400\x-3000\3538+\3538-QMS.dwg 8/23/04 blw



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level.

LEGEND

MW-6 ⊕ Monitoring Well with Groundwater Elevation (feet)

56.50 — Groundwater Elevation Contour

➡ General Direction of Groundwater Flow

GROUNDWATER ELEVATION CONTOUR MAP
March 2, 2005

Former 76 Station 3538
411 West MacArthur Boulevard
Oakland, California

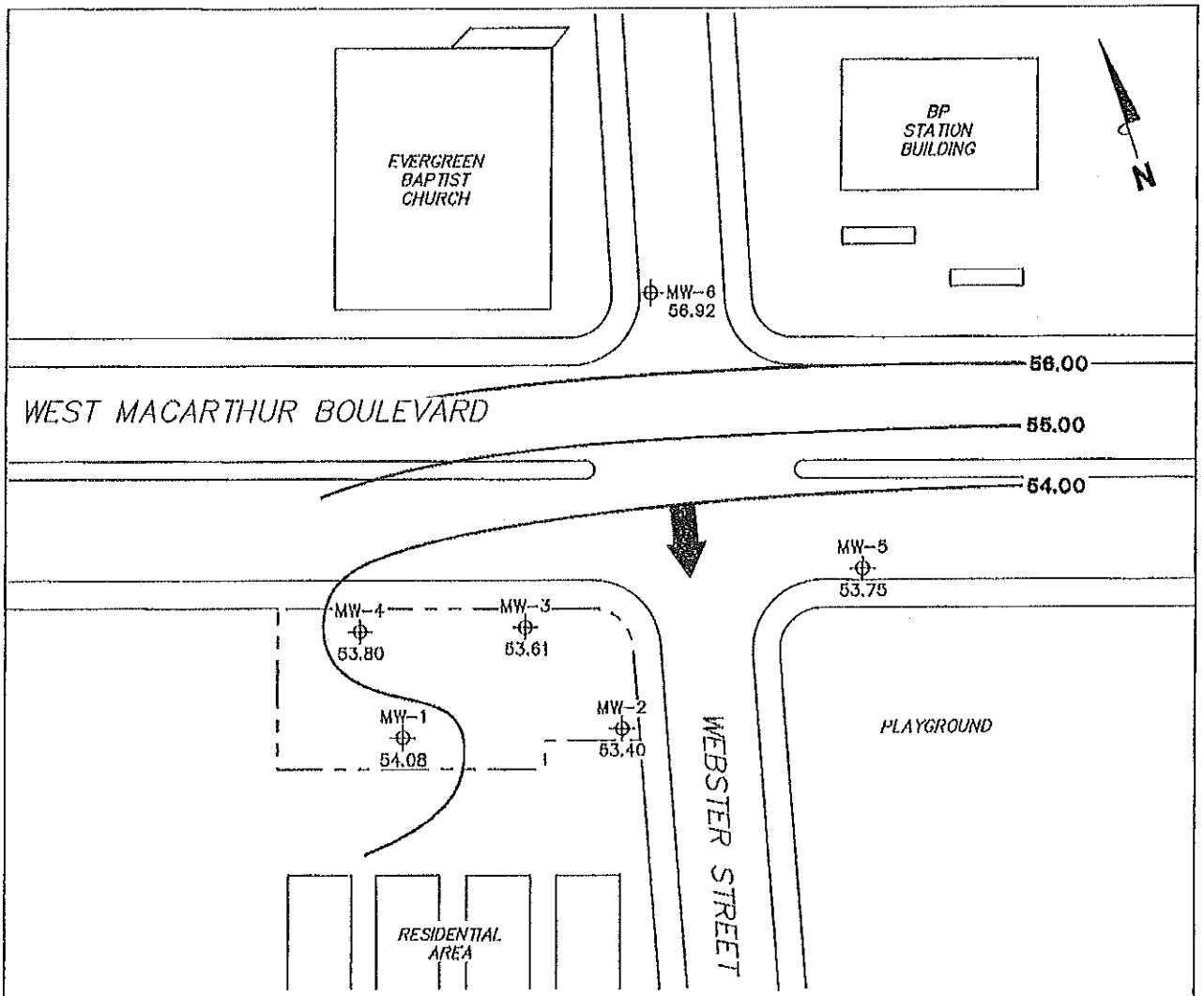
TRC

SCALE (FEET)
0 60

FIGURE 2

PS=1:1 3538-003

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-3000\3538+\3538-QMS.dwg Mar 31, 2005 - 10:29am lwinters



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level.

LEGEND

MW-6 ⊕ Monitoring Well with Groundwater Elevation (feet)

56.00 — Groundwater Elevation Contour

➡ General Direction of Groundwater Flow

GROUNDWATER ELEVATION CONTOUR MAP
September 30, 2005

Former 76 Station 3538
411 West MacArthur Boulevard
Oakland, California

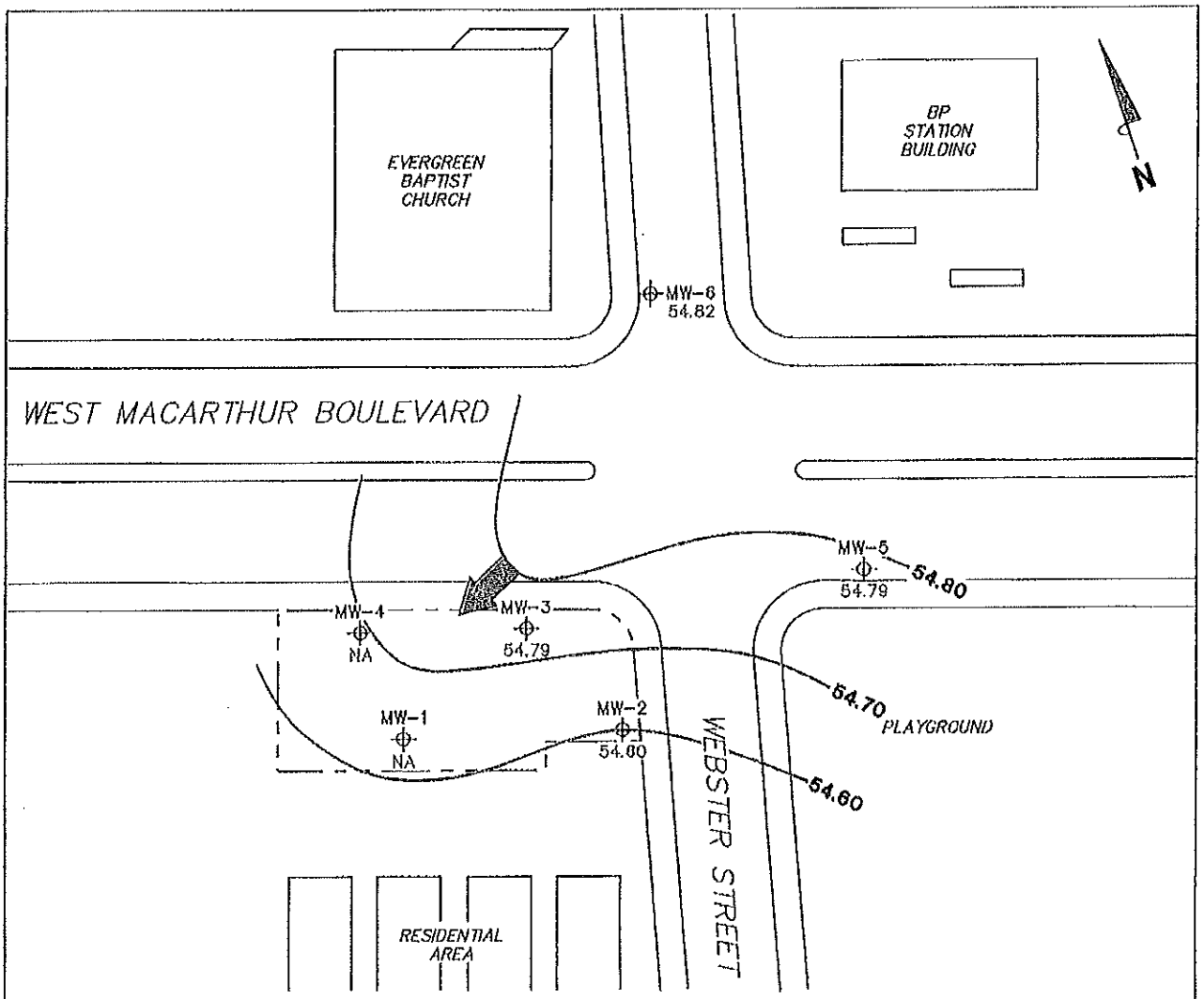
TRC

SCALE (FEET)
0 60

FIGURE 2

PS=1:1 3538-003

L:\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-3000\3538+\3538-QMS.dwg Oct 18, 2005 - 1:20pm mesten



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level.

LEGEND

MW-6 ⊕ Monitoring Well with Groundwater Elevation (feet)

54.80 — Groundwater Elevation Contour

General Direction of Groundwater Flow

GROUNDWATER ELEVATION CONTOUR MAP
March 23, 2006

Former 76 Station 3538
411 West MacArthur Boulevard
Oakland, California

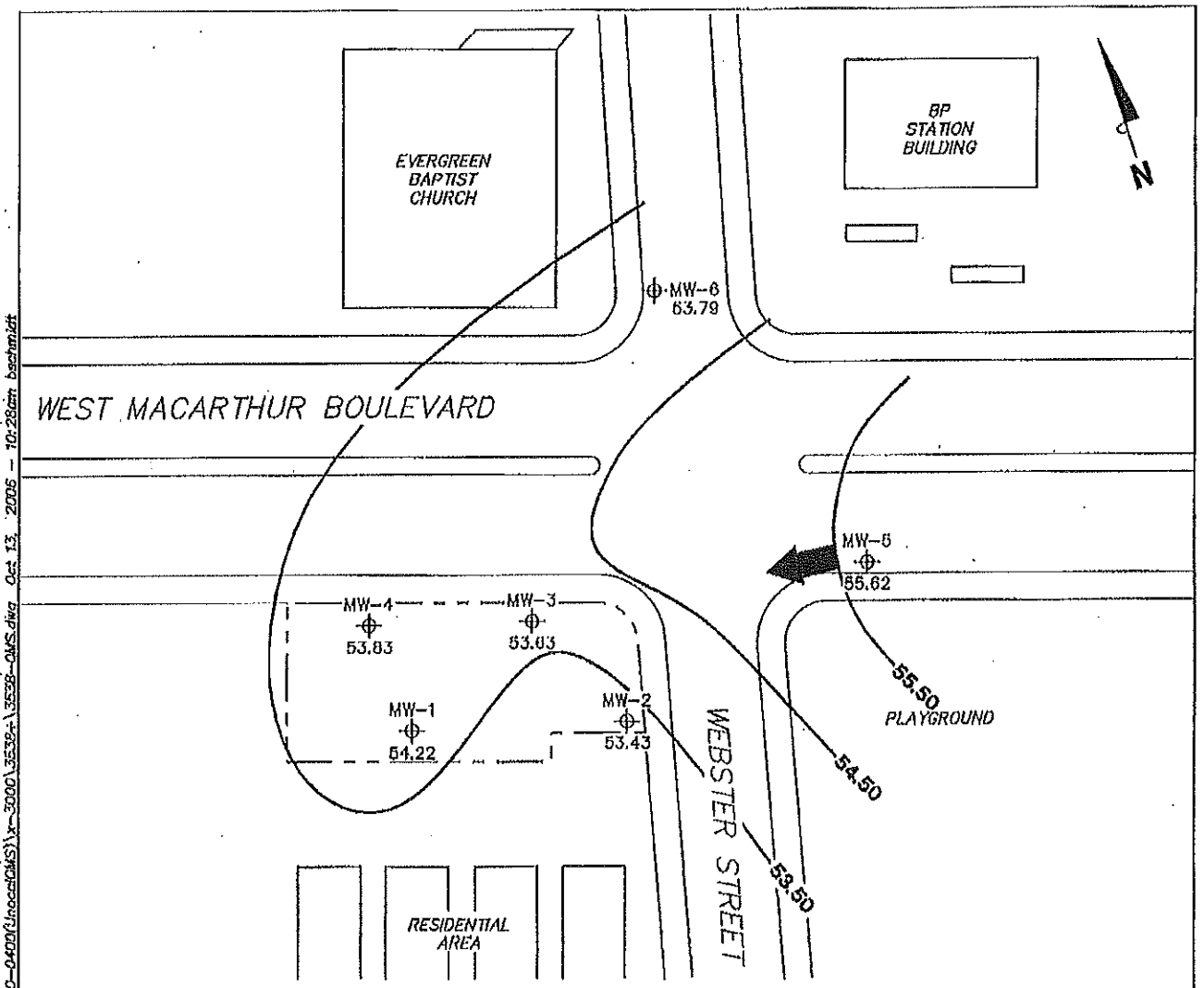
TRC

SCALE (FEET)
0 60

FIGURE 2

PS=1:1 3538-003

\\IRVINE-FS1\Graphics\Graphics\ProjectsByNumber\20-xxxx\20-0400(UnocalQMS)\x-3000\3538\3538-QMS.dwg Apr 15, 2006 -- 10:19am bschmidt



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level.

LEGEND

MW-6 ⊕ Monitoring Well with Groundwater Elevation (feet)

55.50 — Groundwater Elevation Contour

General Direction of Groundwater Flow

TRC

SCALE (FEET)

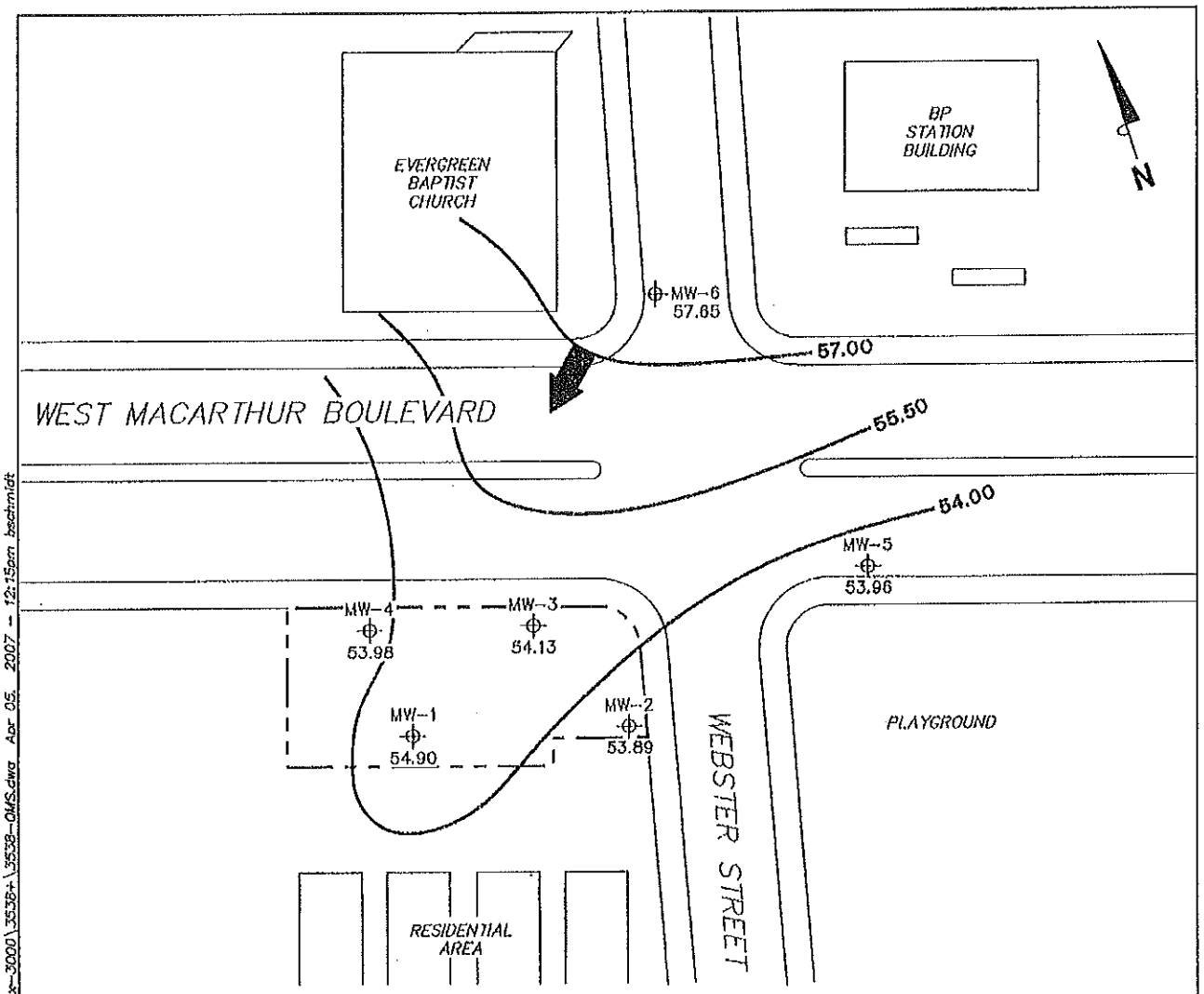
0 60

GROUNDWATER ELEVATION CONTOUR MAP
September 26, 2006

Former 76 Station 3538
411 West MacArthur Boulevard
Oakland, California

FIGURE 2

PS=1:1 3538-003 \\RVBVE-FS1\Graphics\Projects\ProjectNumber\20-xxxx\20-0400\UnocalGIS\1x-3000\3538+\3538-GWS.dwg Oct 13, 2006 - 10:28am bschmidt



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells. Elevations are in feet above mean sea level.

LEGEND

MW-6 ⊕ Monitoring Well with Groundwater Elevation (feet)

57.00 — Groundwater Elevation Contour

General Direction of Groundwater Flow

GROUNDWATER ELEVATION CONTOUR MAP
March 15, 2007

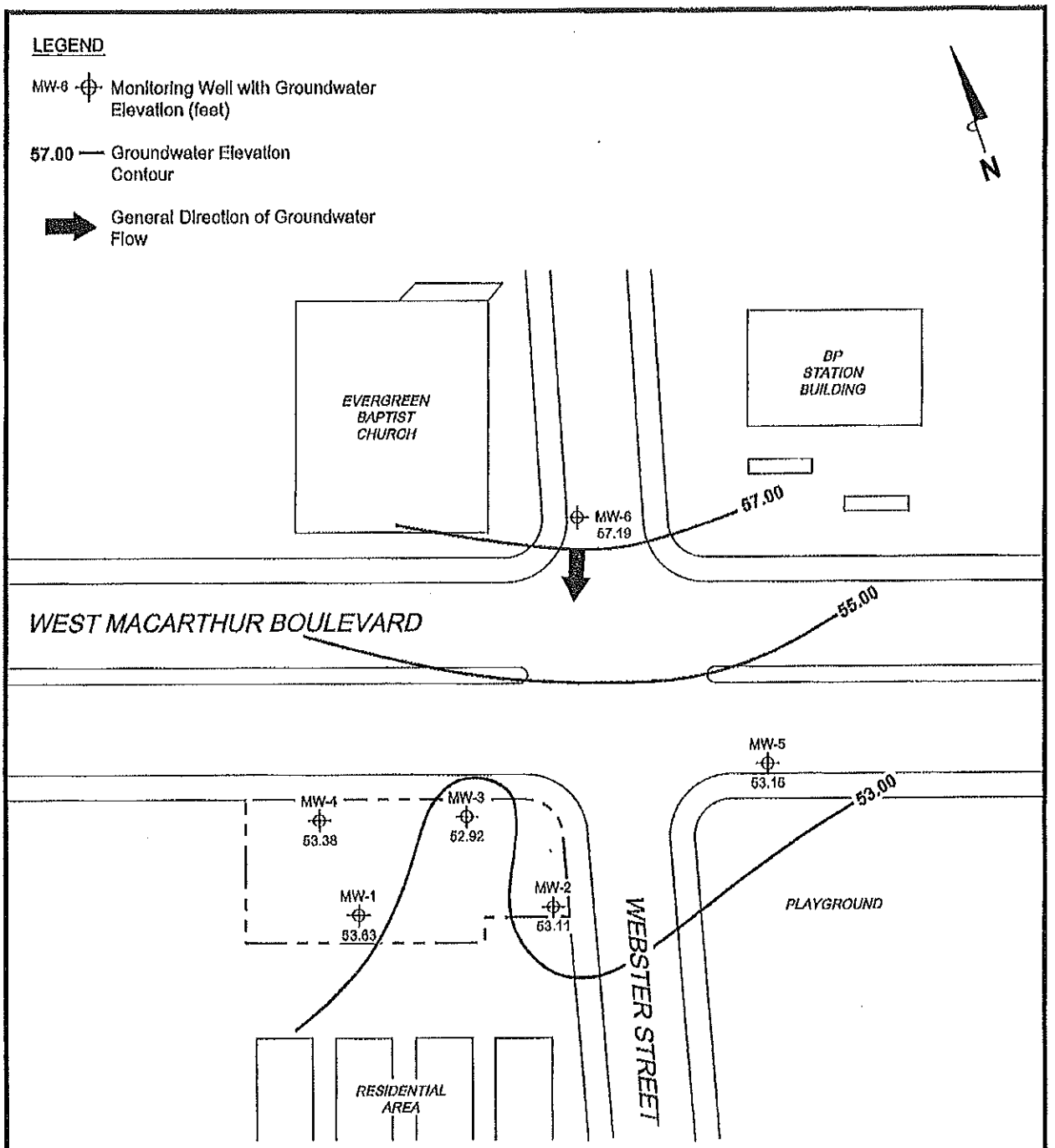
Former 76 Station 3538
411 West MacArthur Boulevard
Oakland, California

TRC

SCALE (FEET)
0 60

FIGURE 2

PS=1:1 3538-003 L:\Graphics\Projects\Number\20-xxxx\20-0400\Uncat\GMS\1\x-3000\3536+\3538-GMS.dwg Apr 05, 2007 - 12:15pm bschmidt



TRC

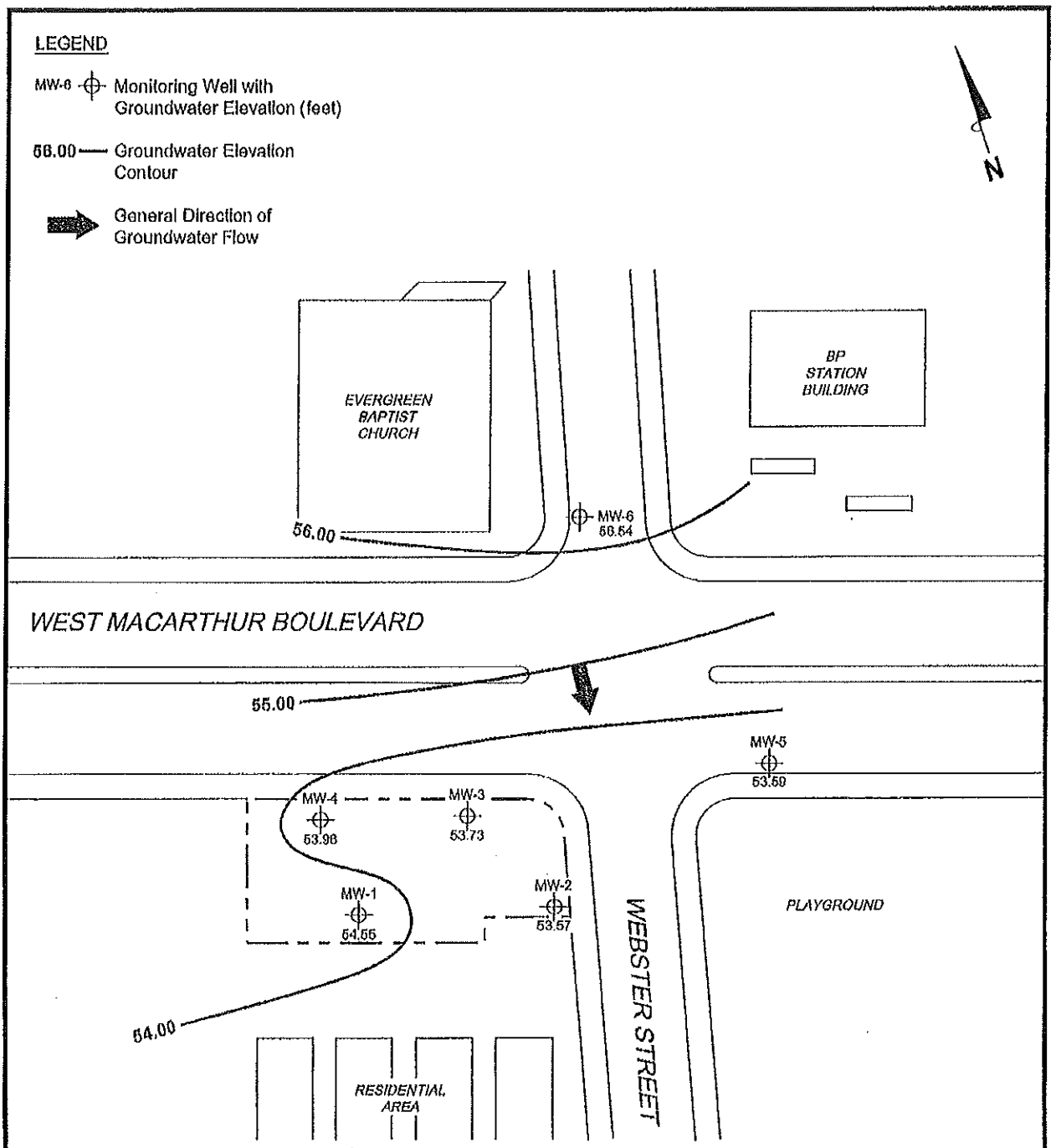
PROJECT: 126703

FACILITY:
FORMER 76 STATION 3538
411 WEST MACARTHUR BLVD.
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP
September 27, 2007

FIGURE 2

MS=1:1 3538-003 L:\Graphics\QMS NORTH-SOUTH\5x-3900\3538-D3538-QMS-(NEW).dwg Oct 10, 2007 - 5:41pm bschmidt



NOTES:

Contour lines are interpretive and based on fluid levels measured in monitoring wells.
Elevations are in feet above mean sea level.

SCALE (FEET)

0 60

TRC

PROJECT: 154771

FACILITY:
FORMER 76 STATION 3638
411 WEST MACARTHUR BLVD.
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION
CONTOUR MAP
March 27, 2008

FIGURE 2

MS=1:1 3638-003 L:\GIS\graphics\EQMS NORTH-SOUTH\DX-3000\3638\3638-QMS-(NEW).dwg Apr 14, 2008 - 1:11pm cwang