Nicole Arceneaux
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6912
Nicole.arceneaux@chevron.com

April 9, 2015

RECEIVED
By Alameda County Environmental Health at 2:43 pm, Apr 15, 2015

Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Unocal No. 6129 (351639)**
3420 35th Avenue, Oakland, California
ACEH Fuel Leak Case No. RO0000058
GeoTracker Global ID T0600101465

I have reviewed the attached report dated April 9, 2015.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local agency/Regional Board guidelines have been followed. This report was prepared by AECOM, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13257(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Nicole M. Arceneaux
Project Manager

Attachment: Focused Site Conceptual Model by AECOM

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916 414 5800 tel
916 414 5850 fax

April 9, 2015

Keith Nowell
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Focused Site Conceptual Model**
Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California
ACEH Fuel Leak Case No. RO0000058
GeoTracker Global ID T0600101465

Dear Mr. Nowell,

On behalf of Chevron Environmental Management Company's (EMC's) affiliate, Union Oil Company of California ("Union Oil"), AECOM has prepared a Focused Site Conceptual Model for the Unocal No. 6129 site located at 3420 35th Avenue in Oakland, California.

Remarks/Signatures

The interpretations in the attached documents represent AECOM's professional opinions which are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact James Harms at (916) 414-5800.

Sincerely,

James Harms
Project Manager

Jessica Law, PG No. 8840
Project Geologist
Stamped: 4/9/2015

cc: Ms. Nicole Arceneaux, EMC (via electronic copy)

Attachments
Attachment A Focused Site Conceptual Model

Attachment A

Focused Site Conceptual Model

Attachment A
Focused Site Conceptual Model
RO058, Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

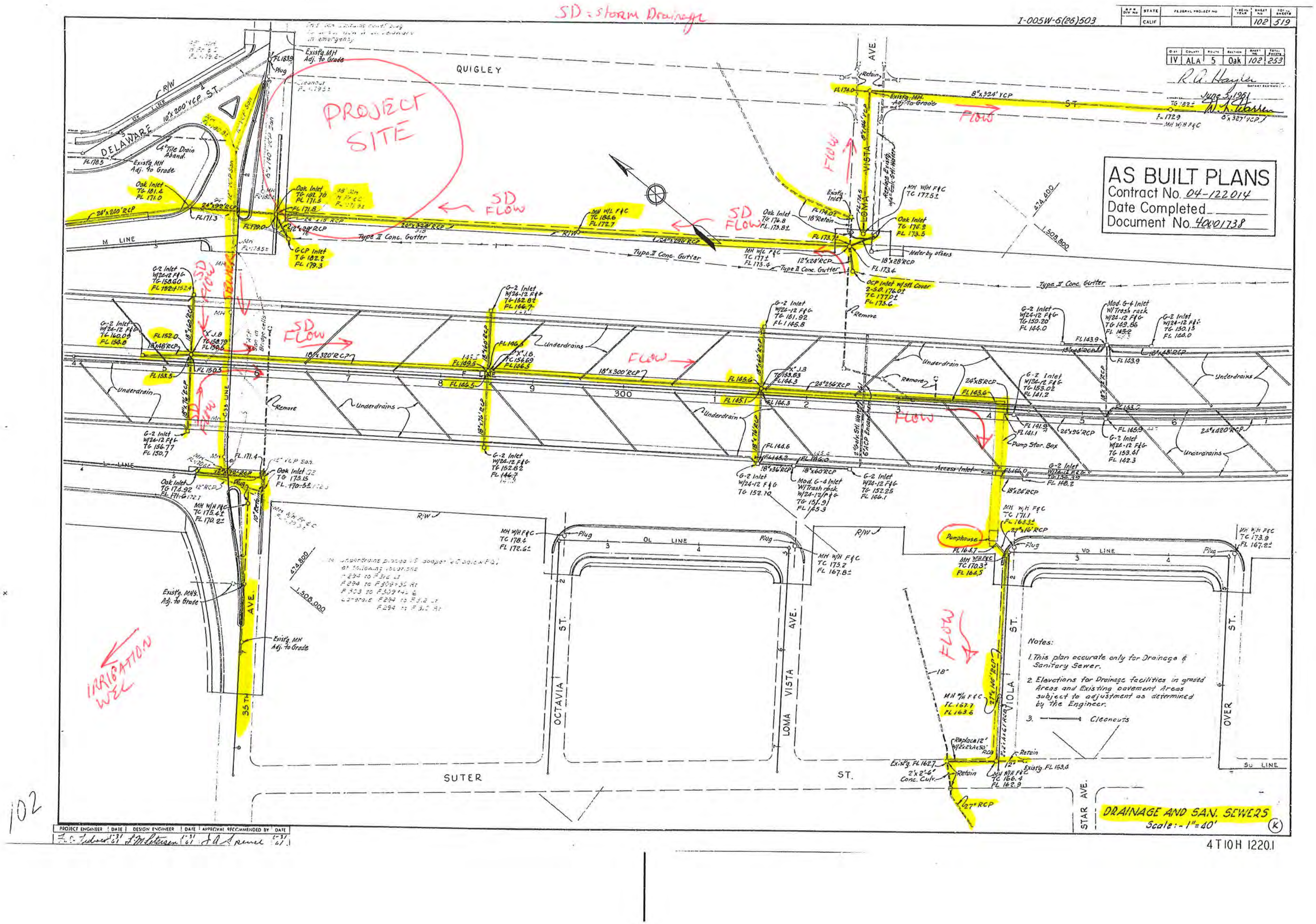
SCM Element	SCM Sub-Element	Description	Reference	Data Tables/Graphics	Data Gaps	Work to Address Data Gap
Geology and Hydrogeology	Regional	AECOM obtained Caltrans as-built stormwater drainage system plans for I-580 at 35th Avenue Over-Crossing (OC) to assess the stormwater collection and discharge pathways and potential effects of groundwater flow due to the existing stormwater drainage system and depressed highway. Stormwater runoff on I-580 at the 35th Avenue OC is collected at a series of inlets located in the center median and shoulders of the highway and approximately 75 feet northwest and up gradient of the OC. The drainage system directs flow to the southeast and downgradient below the center median of the highway for approximately 800 feet toward the 38th Avenue OC. Stormwater flow is then directed to the southwest shoulder of I-580 adjacent to Viola Street (west side of I-580). A stormwater lift station is located between Viola Street and I-580, and pumps stormwater up from the highway into the city stormwater drainage system and to the southwest along Viola Street (**Figure 1a, 1b, 2a,** and **2b**). West of I-580 and downgradient from the site, active LUST case RO014 (BP #11132 3201 35th Avenue) located approximately 640 feet to the southwest, has reported variable historical groundwater flow directions to the southwest, south, and southeast. BP #11132 is located approximately 130 feet south of the irrigation well.There has been no reported potential up gradient groundwater contamination influence at BP #11132, which is directly downgradient from the site. Downgradient from BP #11132 is active LUST case RO271 (Exxon, 3055 35th Avenue) which is approximately 1,100 feet to the southwest, has reported historical groundwater flow directions to the west (Weber 2012).	2012; Weber, Hayes & Associates, Work plan for limited Soil and Groundwater Data Gap Assessment, Former Exxon Station, 3055 35th Avenue, Oakland, CA, February, 21.	Figure 1a: Caltrans As-builts Figure 1b: Caltrans As-builts Figure 2a: City Sewer Maps Figure 2b: City Sewer Maps	April 10, 2014 ACEH Email Comment: Hydrology - The physical site setting has the site located at the southeast corner of 35th Avenue and Quigley Street and is bounded by Highway 580 on the southwest. The predominant ground water flow direction is to the southwest and an irrigation well is located approximately 550 feet to the southwest, on the other side of the highway. At this location Highway 580 is depressed approximately 30 feet below the elevation of the subject site and depths to groundwater vary from approximately 24.5 feet below the ground surface (bgs) to 31.6 feet bgs. The effect on groundwater flow caused by the depressed highway may influence potential impacts to the irrigation well as well as present an artificial barrier to groundwater flow. Additionally, potentially impacted groundwater may be entering the highway drainage system. An investigation of Caltrans storm water collection and discharge points was agreed to at the meeting.	Reviewed Caltrans and Stormwater maps.
	Site	On May 31, 2014, AECOM inspected the slope directly down gradient of the site, which showed no evidence of groundwater seepage along the slope. If groundwater is occasionally captured by the I-580 stormwater drainage system, the amount would not likely be a large enough volume to be pumped. Additioanlly, the most downgradient well, MW-3, has the lowest site concentrations and decreasing trends.			Same as above	Site Inspection
Nearby Wells		An irrigation well was identified 600 feet to the west-southwest on Arkansas Street (**Figure 3**). To confirm the status of this well AECOM sent two well questionnaires with delivery confirmation to the property owner on May 15, 2014 and June 5, 2014. ACEH sent a well questionnaire to the property on August 6, 2014, see **Appendix A**. As of the date of this document, the property owner has not responded to any of the requests. The well is located cross-gradient of the site and is unlikely to be impacted by the site. The next closest well is also an irrigation well approximately one-half mile north of the site.		Figure 3: Site Vicinity Map Appendix A: Well Questionnaire's and responses.	April 10, 2014 ACEH Email Comment: Irrigation Well – As discussed above, an irrigation well is located approximately 550 feet southwest of the site, on the other side of the highway. As the status of the well is unknown, Chevron will contact the owner to verify status of the well.	Sent well questionnaire's

Attachment A
Focused Site Conceptual Model
RO058, Unocal No. 6129 (351639)
3420 35th Avenue, Oakland, California

SCM Element	SCM Sub-Element	Description	Reference	Data Tables/Graphics	Data Gaps	Work to Address Data Gap
Distribution of Petroleum Hydrocarbons	Groundwater	The subject Unocal site has two up-gradient groundwater monitoring wells (MW-1 and MW-2), which are both experiencing increasing concentrations. Well MW-1 has been experiencing statistically significant increasing concentrations trends for total petroleum hydrocarbons as gasoline (TPHg) and methyl tertiary butyl ether (MTBE) starting in 2010 (**Appendix B**). Well MW-2 also has been experiencing stable to increasing concentration trends which are not yet statistically increasing for TPHg and MTBE. The down gradient monitoring well, MW-3, is experiencing a stable to decreasing contaminant concentration trend. Impacts from the on-site releases appear to be attenuating (**Appendix C**). Case RO0002515, Valero #3832 is located opposite the site across Quigley Street at 3450 35th Avenue. The Valero is up-gradient from the site and is an active leaking underground storage tank case and is currently vacant. MTBE and TPHg are much higher at the upgradient Valero (former Exxon) site. The former UST pit water was sampled after the 2002 UST excavation, MTBE was detected at 12,000 ug/L and TPHg was detected at 5,600 ug/L. Diesel analysis in groundwater is not warranted since it has not been dispensed at the site and because the soil concentration of diesel detected below the waste oil tank were near non detect and there is 15 feet of vertical separation above the water table.	2009, Delta Consultants, Sensitive Receptor Survey, March 15.	Appendix B. Groundwater Data Appendix C: Concentration Graphs	April 10, 2014 ACEH Email Comment: Former Valero Gas Station – Valero #3832 was located opposite the site across Quigley Street. The inactive station property at 3450 35th Avenue, is located up-gradient from the site and is an active leaking underground storage tank case. The subject Unocal site has two up-gradient groundwater monitoring wells (MW-1 and MW-2). Well MW-1 has been experiencing increasing concentrations trends for total petroleum hydrocarbons as gasoline (TPHg) and methyl tertiary butyl ether (MTBE) starting by 2010. Well MW-2 also has been experiencing increasing concentration trends for TPHg and MTBE, from possibly as early as 2008. The down gradient monitoring well, MW-3, is experiencing a decreasing contaminant concentration trend. Impacts from on-site releases appear to be attenuating. Based on the results of a sensitive receptor survey, a decision will be made as to whether further assessment is required to assess the potential groundwater contaminant contribution from this up gradient site.	Reviewed the 2009 Sensitive Receptor Survey.
	Soil	One soil sample was collected under the waste oil UST (WO1) at 9.5 feet below ground surface. Total petroleum hydrocarbons as diesel was detected at 3.3 mg/kg and total oil and grease (TOG) at 58 mg/kg. Benzene, toluene, ethylbenzene, and total xylenes were not detected. Semivolatile organic compound (SVOC) monitoring is not warranted based on these sample results (**Appendix D**). Site soil concentrations were compared to the Table 1 values in the Low Threat Closure Policy Direct Contact and Outdoor Air Exposure, the results are as follows: Benzene: One soil sample, MW-3 at 5 feet bgs (4.5 mg/kg), exceeded the residential level of 1.9 mg/kg from 0 to 5 feet, no other exceedances. Ethylbenzene: no exceedances. Naphthalene and PAHs: not analyzed during waste oil tank excavation. Due to the low to non-detect hydrocarbon concentrations in soil from the waste oil tank, additional analysis for naphthalene and PAHs are not warranted.		Appendix D: Soil Analytical Data	April 8, 2014 ACEH Meeting Comment: What were the results and analyses for the waste oil tank confirmation samples.	Research to confirm waste oil tank sample results.

Figures

Figure 1a



SD = Storm Drainage
I-005W-6(26)503
QUIGLEY
ST.
DELAWARE
PROJECT SITE
SD FLOW
FLOW
AS BUILT PLANS
Contract No. 04-122014
Date Completed
Document No.
IRRIGATION WELL
35TH AVE.
OCTAVIA ST.
LOMA VISTA AVE.
VIOLA ST.
OVER ST.
STAR AVE.
SUTER ST.
Pumphouse
Notes:
1. This plan accurate only for Drainage & Sanitary Sewer.
2. Elevations for Drainage facilities in graded Areas and Existing pavement Areas subject to adjustment as determined by the Engineer.
3. Cleanouts
DRAINAGE AND SAN. SEWERS
Scale:- 1"=40'
4T10H 1220.1

Figure 1b

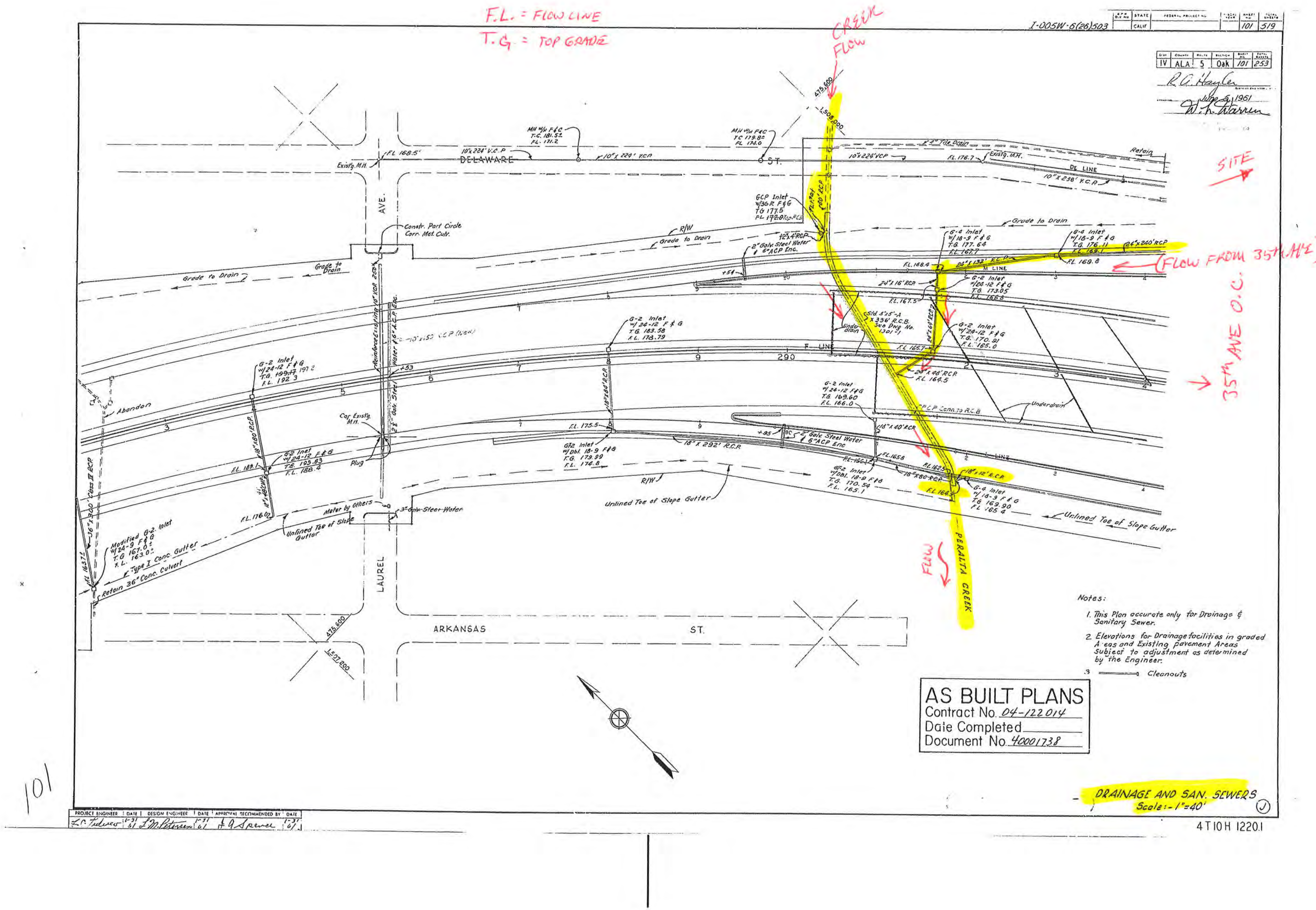

F.L. = FLOW LINE
T.G. = TOP GRADE
CREEK FLOW
SITE
(FLOW FROM 35TH AVE)
35TH AVE O.C.
PERALTA CREEK
FLOW
I-005W-6(26)503
IV ALA 5 Oak 101 253
DELAWARE ST.
ARKANSAS ST.
LAUREL AVE.
Notes:
1. This Plan accurate only for Drainage & Sanitary Sewer.
2. Elevations for Drainage facilities in graded areas and Existing pavement Areas Subject to adjustment as determined by the Engineer.
Cleanouts
AS BUILT PLANS
Contract No. 04-122014
Date Completed
Document No. 40001738
DRAINAGE AND SAN. SEWERS
Scale:- 1"=40'
4T10H 1220.1
101

Figure 2a

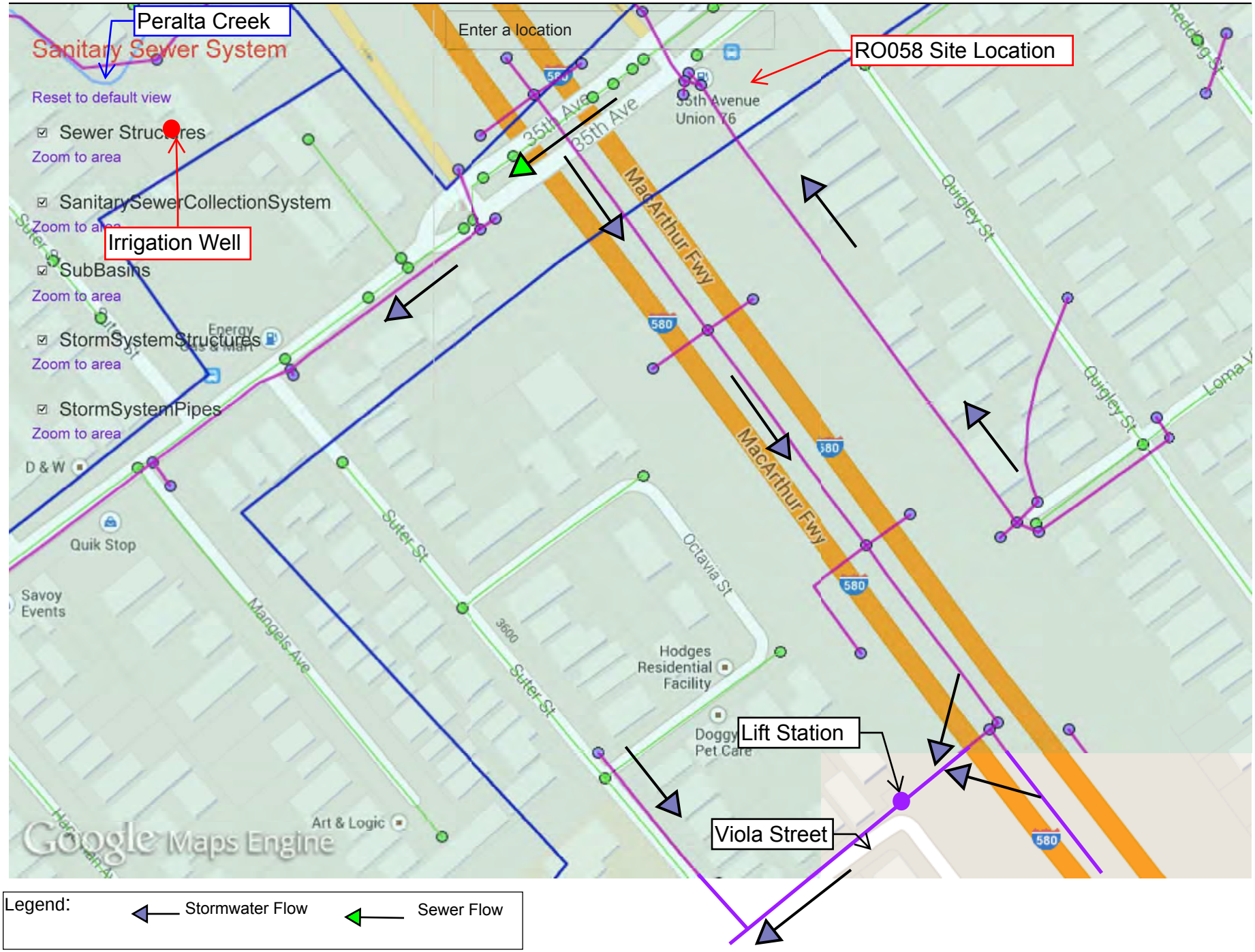
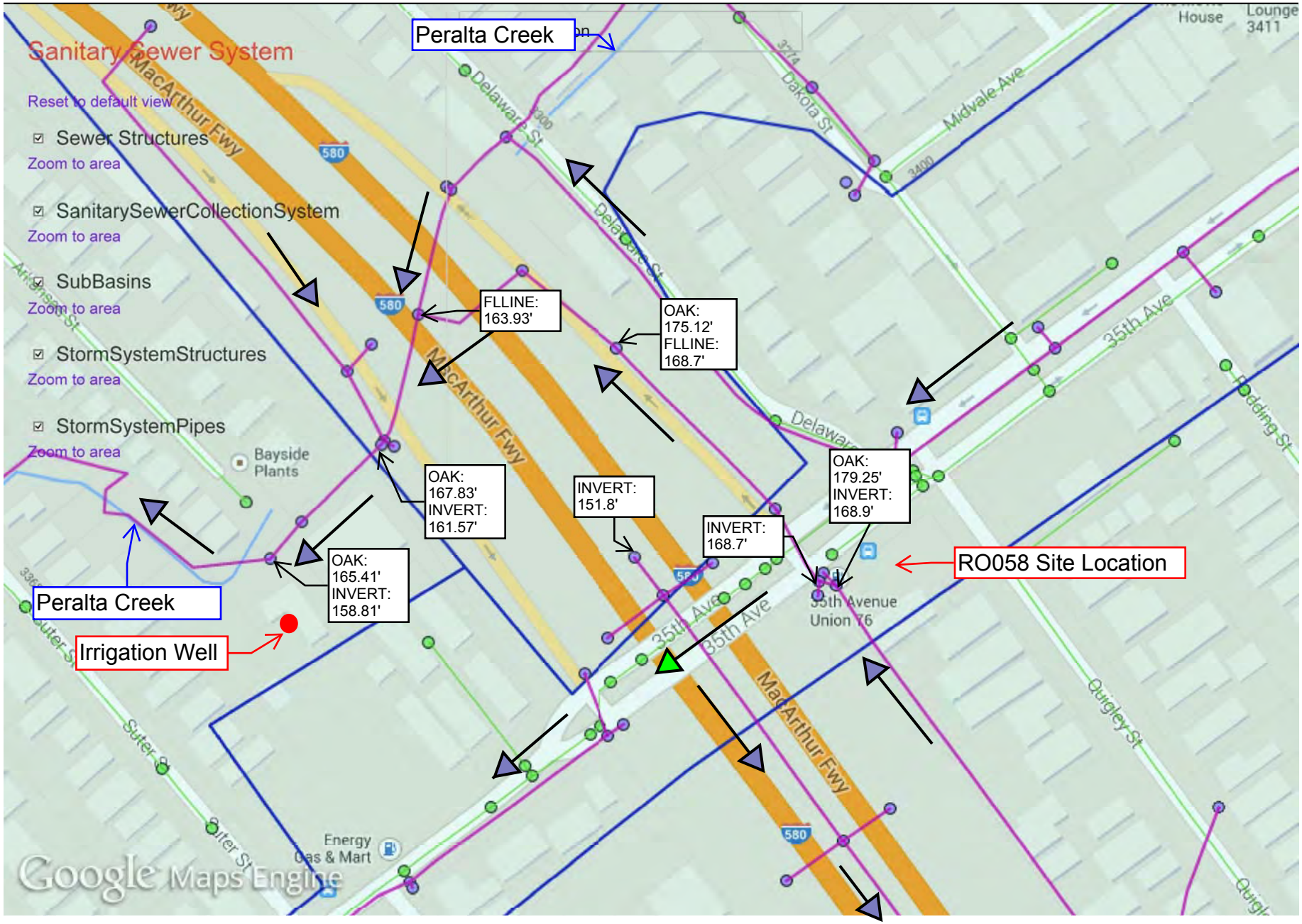

Peralta Creek
Sanitary Sewer System
Reset to default view
Sewer Structures
Zoom to area
SanitarySewerCollectionSystem
Zoom to area
Irrigation Well
SubBasins
Zoom to area
StormSystemStructures
Zoom to area
StormSystemPipes
Zoom to area
Enter a location
Sign in
RO058 Site Location
35th Avenue
Union 76
35th Ave
MacArthur Fwy
580
Quigley St
Loma
Suter St
Energy
D & W
Quik Stop
Savoy
Events
Mangels Ave
3600
Octavia St
Hodges
Residential
Facility
Doggy
Pet Care
Lift Station
Viola Street
Art & Logic
Google Maps Engine
Legend:
Stormwater Flow
Sewer Flow

Figure 2b



Legend: Stormwater Flow Direction; Sewer Flow Direction

Peralta Creek
600 Feet Northwest

Up-Gradient Valero

MW-2

MW-1

MW-3

RO058 Site Location

Irrigation Well

Residential Zoning

BP #11132

Exxon

Maximum MTBE Extent
Based on Flow Direction and
LTC Justification Paper

0°
270°
90°
180°
APPROXIMATE GROUNDWATER
FLOW DIRECTION
1Q1990 TO 2Q2014

Path: P:\ENV\01231-Chevron\76Products_transfer_sites\351639_6129_Oakland\7.0 Deliverables\7.2_CADD\GIS\Fig1_vicinity_map351639_receptors.mxd

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
916.414.5800

N

0 75 150 300 Feet

Figure 3: Site Vicinity Map

RO058, UNOCAL NO. 6129 (351639)
3420 35th AVENUE
OAKLAND, CALIFORNIA

Appendix A

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH DEPARTMENT
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

August 6, 2014

Yea Lee, Feng Chen, and George Lu
3397 Arkansas Street
Oakland CA 94602-3707

Subject: Property Access by the Parties Responsible for the Investigation and Cleanup of Petroleum Hydrocarbon Pollution at Fuel Leak Case No. RO0000058 and Geotracker Global ID T0600101465, Unocal #6129, 3420 35th Ave., Oakland, CA 94619

Dear Yea Lee, Feng Chen, and George Lu

Alameda County Environmental Health (ACEH) is overseeing the investigation of the petroleum hydrocarbons released from fuel underground storage tanks (USTs) at the subject site (Site). As the responsible party, Chevron Environmental Management Company (CEMC) is required to investigate the extent of the release(s) and to clean up the contamination. Information from the Alameda County Public Works indicates an irrigation well may be located on your property. For this reason for CEMC (Ms. Nicole Arceneaux, formerly Mr. Tim Bishop) and her consultant, Mr. Jim Harms of AECOM, have requested information well pertaining to the well.

ACEH is requiring CEMC to determine the extent of contamination in groundwater related to the release(s) at the Site. As part of the investigation, ACEH has directed CEMC to verify the existence of the well identified to be located on your property, and to define the extent of contamination by recovering a water sample from the well, should it exist. AECOM sent you a request for well information in letters mailed on May 15, 2014 and June 5, 2014. As of the date of this letter AECOM has not received a response.

Therefore, ACEH is requesting your help in helping determining if a well is located on your property and allowing access to your property at 3397 Arkansas Street, Oakland, by CEMC and their consultant AECOM (Jim Harms) to properly define the contaminant plume. You will be notified of the results of the sample analysis.

ACEH requests that you complete the well information form and provide it to CEMC. If the well is located on your property, please contact CEMC to complete an access agreement so the well water can be tested. ACEH has included the most recent request for well information prepared by AECOM as an attachment.

Contact information is as follows:

Ms. Nicole Arceneaux, Chevron Environmental Management Company, 6101 Bollinger Canyon Road, San Ramon, CA 94583;

Jim Harms, AECOM, 2020 L Street, Suite 400, Sacramento, CA 95811.

Included with this correspondence is a stamped envelope addressed to CEMC's consultant. ACEH encourages you to work with the Responsible Party, CEMC (Ms. Arceneaux), and her consultant, AECOM (Jim Harms), and agree upon terms necessary (i.e. your signature on an access agreement) to allow them access to your property to sample the irrigation well.

If you continue to not respond by the date specified below, then ACEH will consider the case for closure the site under the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (Policy). Please reconsider the request for well information and respond to this correspondence within two weeks (14 days) from the date of this letter (**August 22, 2014**).

If you do not respond and your well is in service, this correspondence serves as notification that water in the well should be tested prior to future use as the water may potentially be contaminated by nearby releases of petroleum hydrocarbons.

As your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address(es) so that we can correspond with you quickly and efficiently regarding this case.

If you have any questions, please contact Jim Harms of AECOM at (916) 414-5863. In addition, I can be reached at (510) 567-6764 or send me an electronic mail message at keith.nowell@acgov.org. Thank you for your cooperation.

Sincerely,

Digitally signed by Keith Nowell
DN: cn=Keith Nowell, o=Alameda County, ou=Department of Environmental Health, email=keith.nowell@acgov.org, c=US
Date: 2014.08.06 12:42:27 -07'00'

Keith Nowell, P.G., CH.G
Hazardous Materials Specialist

Attachment: AECOM Domestic Well Information Request

cc: Nicole Arceneaux, Chevron Environmental Management Company, 6101 Bollinger Canyon Road, San Ramon, CA 94583 *(Sent via E-mail to: nicole.arceneaux@chevron.com)*
Alexis Fischer, Chevron Environmental Management Company 6101 Bollinger Canyon Road, San Ramon, CA 94583 *(Sent via E-mail to: AFischer@Chevron.com)*

Jim Harms, AECOM, 2020 L Street, Suite 400, Sacramento, CA 95811, Sacramento, CA 95811 *(Sent via E-mail to: jim.harms@aecom.com)*
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Dilan Roe, ACEH (*Sent via E-mail to: dilan.roe@acgov.org*)
Keith Nowell, ACEH (*Sent via E-mail to: keith.nowell@acgov.org*)
GeoTracker, e-file

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916 414 5800 tel
916 414 5850 fax

June 5, 2014

Yea K. Lee
Feng X. Chen
George Lu
3397 Arkansas Street
Oakland, CA 94602

SECOND REQUEST
FEDERAL EXPRESS

Re: Domestic Well Questionnaire
Unocal Station No. 6129 (351639)
3420 35th Avenue
Oakland, CA
ACEH Fuel Leak Case No. RO0000058

Dear Property Owners:

The Alameda County Environmental Health Department(ACEH) has requested information pertaining to a groundwater well that was identified at 3397 Arkansas Street, Oakland, California (APN# 28-952-13-3). AECOM is seeking to provide the requested information to ACEH on behalf of Chevron Environmental Management Company. We are requesting that you complete this questionnaire and return it to us in the enclosed, self-addressed, stamped envelope provided. Please return the questionnaire by **June 13, 2014**. The ACEH will use this information to assess a path forward for the site referenced above.

Please complete the following by circling 'yes' / 'no' / or 'don't know'.

1.	Is there a water well on the property listed above?	YES	NO	DON'T KNOW
	Is the well operational?	YES	NO	DON'T KNOW
2.	Is there a sump and/or pump on this property?	YES	NO	DON'T KNOW
3.	Is this property occupied?	YES	NO	DON'T KNOW
	Name of tenant:			
	Your signature:	Date:		

Please complete the following to the best of your ability *if* you answered 'yes' to #1 or #2, above:

Number of wells on the property: _____

Date well(s) were installed: _____

Diameter of each well (in feet): _____

Depth to the top of the filter pack in each well (in feet): _____

Use of each well: _____

Frequency of use: _____

Your telephone number: _____

Thank you very much for your assistance. Please contact Jim Harms, AECOM, Project Manager, at (916) 414-5863.

Sincerely,

James Harms
Project Manager

cc: Tim Bishop, Chevron EMC

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916 414 5800 tel
916 414 5850 fax

SENT VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Domestic Well Questionnaire
Unocal Station No. 6129 (351639)
3420 35th Avenue
Oakland, CA
ACEH Fuel Leak Case No. RO0000058

Dear Property Owners:

The Alameda County Environmental Health Department(ACWD) has requested information pertaining to a groundwater well that was identified at 3397 Arkansas Street, Oakland, California (APN# 28-952-13-3). AECOM is seeking to provide the requested information to ACWD on behalf of Chevron Environmental Management Company. We are requesting that you complete this questionnaire and return it to us in the enclosed, self-addressed, stamped envelope provided. Please return the questionnaire by **May 30, 2014**. The ACWD will use this information to assess a path forward for the site referenced above.

Please complete the following by circling 'yes' / 'no' / or 'don't know'.

1.	Is there a water well on the property listed above?	YES	NO	DON'T KNOW
	Is the well operational?	YES	NO	DON'T KNOW
2.	Is there a sump and/or pump on this property?	YES	NO	DON'T KNOW
3.	Is this property occupied?	YES	NO	DON'T KNOW

Name of tenant:

Your signature: Date:

Please complete the following to the best of your ability *if* you answered 'yes' to #1 or #2, above:

Number of wells on the property: _____

Date well(s) were installed: _____

6/10 - Call from Fed Ex P.O. to pick up pkg

Due back 6/13

AECOM

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811
www.aecom.com

916 414 5800 tel
916 414 5850 fax

received by V. Lee on 6/10 7:16pm Fed Ex

June 5, 2014

Yea K. Lee
Feng X. Chen
George Lu
3397 Arkansas Street
Oakland, CA 94602

SECOND REQUEST
FEDERAL EXPRESS

770206738377

Re: Domestic Well Questionnaire
Unocal Station No. 6129 (351639)
3420 35th Avenue
Oakland, CA
ACEH Fuel Leak Case No. RO0000058

Dear Property Owners:

The Alameda County Environmental Health Department(ACEH) has requested information pertaining to a groundwater well that was identified at 3397 Arkansas Street, Oakland, California (APN# 28-952-13-3). AECOM is seeking to provide the requested information to ACEH on behalf of Chevron Environmental Management Company. We are requesting that you complete this questionnaire and return it to us in the enclosed, self-addressed, stamped envelope provided. Please return the questionnaire by **June 13, 2014**. The ACEH will use this information to assess a path forward for the site referenced above.

Please complete the following by circling 'yes' / 'no' / or 'don't know'.

1.	Is there a water well on the property listed above?	YES	NO	DON'T KNOW
	Is the well operational?	YES	NO	DON'T KNOW
2.	Is there a sump and/or pump on this property?	YES	NO	DON'T KNOW
3.	Is this property occupied?	YES	NO	DON'T KNOW
	Name of tenant:			
	Your signature:	Date:		

Please complete the following to the best of your ability *if* you answered 'yes' to #1 or #2, above:

Number of wells on the property: _____

Date well(s) were installed: _____

CERTIFIED MAIL™

AECOM

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

7010 1060 0001 9298 9782

UNITED STATES POSTA
02 1P
0003139632
MAILED FROM

RETURNED TO SENDER

UNCLAIMED

5.29

L/2

Yea K. Lee
Feng X. Chen
George Lu
3397 Arkansas Street
Oaklar

NIXIE 957 F2 1009 0006

RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSE
UNABLE TO FORWARD

BC: 95811426700 *0341-0016

95

Appendix B

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-1	190.79	1/5/1990	32.80	157.99	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	190.79	5/11/1990	31.80	158.99	--	<30	<0.30	7.1	<0.30	<0.30	
24 to 44' bgs	190.79	8/9/1990	32.37	158.42	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/14/1990	33.32	157.47	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	2/12/1991	33.02	157.77	--	<30	0.32	<0.30	<0.30	<0.30	
	190.79	5/9/1991	30.95	159.84	--	<30	<0.30	<0.30	<0.30	<0.30	
	190.79	11/13/2003	--	--	--	180	<1.0	<1.0	<1.0	<2.0	
	190.79	8/27/2004	30.65	160.14	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2004	29.35	161.44	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	2/9/2005	26.89	163.90	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/17/2005	26.56	164.23	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	7/27/2005	27.33	163.46	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/6/2005	29.59	161.20	0	<50	<0.50	0.93	<0.50	1.80	
	190.79	2/21/2006	28.27	162.52	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/8/2006	26.07	164.72	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/15/2006	28.86	161.93	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2006	29.49	161.30	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	3/28/2007	27.24	163.55	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	6/25/2007	28.30	162.49	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	9/22/2007	30.61	160.18	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.79	12/14/2007	30.30	160.49	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/17/2008	27.22	163.57	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	6/20/2008	30.10	160.69	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	9/11/2008	31.04	159.75	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	11/25/2008	30.88	159.91	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	3/9/2009	27.50	163.29	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/28/2009	28.25	162.54	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	12/11/2009	30.60	160.19	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/7/2010	26.06	164.73	0	67	<0.50	<0.50	<0.50	<1.0	
	190.79	11/1/2010	30.18	160.61	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.79	5/27/2011	26.87	163.92	0	110	<0.50	<0.50	<0.50	<1.0	
	190.79	11/23/2011	29.14	161.65	0	1,101	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-1 cont.	190.79	5/24/2012	26.58	164.21	0	140	<0.50	<0.50	<0.50	<1.0	
	190.79	10/23/2012	30.51	160.28	0	130	<0.50	<0.50	<0.50	<1.0	
	190.79	5/2/2013	28.30	162.49	0	150 [1]	<0.50	<0.50	<0.50	<1.0	
	190.79	11/13/2013	31.65	159.14	0	240	<0.50	<0.50	<0.50	<1.0	
	190.79	5/12/2014	28.95	161.84	0	98 [1]	<0.50	<0.50	<0.50	<1.0	
	190.79	**11/19/2014**	**31.50**	**159.29**	**0**	**130 [1]**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-2	190.80	1/5/1990	33.02	157.78	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
screened	190.80	5/11/1990	31.98	158.82	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
24 to 44' bgs	190.80	8/9/1990	32.45	158.35	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/14/1990	33.47	157.33	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	2/12/1991	33.15	157.65	--	<30	<>0.30	0.42	<0.30	0.51	
	190.80	5/9/1991	30.88	159.92	--	<30	<>0.30	<>0.30	<>0.30	<>0.30	
	190.80	11/13/2003	--	--	--	<2,000	<20	<20	<20	<40	
	190.80	8/27/2004	30.28	160.52	0	950	<5.0	<5.0	<5.0	<10	
	190.80	11/23/2004	28.75	162.05	0	53	<0.50	<0.50	<0.50	<1.0	
	190.80	2/9/2005	26.08	164.72	0	<500	<0.50	<0.50	<0.50	<1.0	
	190.80	5/17/2005	24.53	166.27	0	<50	<0.50	<0.50	<0.50	<1.0	
	190.80	7/27/2005	27.51	163.29	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	12/6/2005	29.13	161.67	0	340	<0.50	<0.50	<0.50	<1.0	
	190.80	2/21/2006	29.23	161.57	0	190	<0.50	<0.50	<0.50	<1.0	
	190.80	6/8/2006	25.76	165.04	0	<500	<5.0	<5.0	<5.0	<10	
	190.80	9/15/2006	29.17	161.63	0	<500	<5.0	<5.0	<5.0	<5.0	
	190.80	12/14/2006	29.11	161.69	0	520	<0.50	<0.50	<0.50	<0.50	
	190.80	3/28/2007	26.68	164.12	0	290	<0.50	<0.50	<0.50	<0.50	
	190.80	6/25/2007	25.91	164.89	0	<50	<0.50	<0.50	<0.50	<0.50	
	190.80	9/22/2007	30.18	160.62	0	400	<0.50	<0.50	<0.50	<0.50	
	190.80	12/14/2007	29.96	160.84	0	400	<0.50	<0.50	<0.50	<1.0	
	190.80	3/17/2008	26.74	164.06	0	570	<5.0	<5.0	<5.0	<10	
	190.80	6/20/2008	29.78	161.02	0	580	<0.50	<0.50	<0.50	<1.0	
	190.80	9/11/2008	30.62	160.18	0	220	<0.50	<0.50	<0.50	<1.0	
	190.80	11/25/2008	30.48	160.32	0	500	<0.50	<0.50	<0.50	<1.0	
	190.80	3/9/2009	25.75	165.05	0	910	<5.0	<5.0	<5.0	<10	
	190.80	5/28/2009	27.71	163.09	0	460	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-2 cont.	190.80	12/11/2009	29.80	161.00	0	640	<5.0	<5.0	<5.0	<10	
	190.80	5/7/2010	25.11	165.69	0	600	<1.0	<1.0	<1.0	<2.0	
	190.80	11/1/2010	29.90	160.90	0	140	<0.50	<0.50	<0.50	<1.0	
	190.80	5/27/2011	26.44	164.36	0	560	<0.50	<0.50	<0.50	<1.0	
	190.80	11/23/2011	28.53	162.27	0	830	<0.50	<0.50	<0.50	<1.0	
	190.80	5/24/2012	25.97	164.83	0	1,000	<0.50	<0.50	<0.50	<1.0	
	190.80	10/23/2012	30.14	160.66	0	750	<0.50	<0.50	<0.50	<1.0	
	190.80	5/2/2013	27.14	163.66	0	290 [1]	<0.50	<0.50	<0.50	<1.0	
	190.80	11/13/2013	31.37	159.43	0	1,200	<0.50	<0.50	<0.50	<1.0	
	190.80	5/12/2014	28.49	162.31	0	260	<0.50	<0.50	<0.50	<1.0	
	190.80	**11/19/2014**	**31.46**	**159.34**	**0**	**430 [1]**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	
MW-3	188.58	1/5/1990	31.88	156.70	--	<30	<0.30	<0.30	<0.30	<0.30	
screened	188.58	5/11/1990	31.25	157.33	--	<30	<0.30	<0.30	<0.30	<0.30	
23 to 43' bgs	188.58	8/9/1990	31.53	157.05	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/14/1990	33.30	155.28	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	2/12/1991	32.05	156.53	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	5/9/1991	30.37	158.21	--	<30	<0.30	<0.30	<0.30	<0.30	
	188.58	11/13/2003	--	--	--	2,600	<20	<20	<20	<40	
	188.58	8/27/2004	29.61	158.97	0	1,700	<10	<10	<10	<20	
	188.58	11/23/2004	28.48	160.10	0	1,500	<10	<10	<10	<20	
	188.58	2/9/2005	26.45	162.13	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	5/17/2005	25.61	162.97	0	<1,000	<0.50	<0.50	<0.50	<1.0	
	188.58	7/27/2005	27.35	161.23	0	<1,000	<10	<10	<10	<20	
	188.58	12/6/2005	28.78	159.80	0	430	<0.50	1.6	<0.50	3.6	
	188.58	2/21/2006	28.91	159.67	0	420	<0.50	<0.50	<0.50	<1.0	
	188.58	6/8/2006	25.97	162.61	0	<1,200	<12	<12	<12	<25	
	188.58	9/15/2006	28.73	159.85	0	<1,200	<12	<12	<12	<12	
	188.58	12/14/2006	28.62	159.96	0	<1,000	<10	<10	<10	<10	
	188.58	3/28/2007	26.69	161.89	0	500	<1.0	<1.0	<1.0	<1.0	
	188.58	6/25/2007	26.74	161.84	0	270	<0.50	<0.50	<0.50	<0.50	
	188.58	9/22/2007	29.57	159.01	0	500	<0.50	<0.50	<0.50	<0.50	
	188.58	12/14/2007	29.30	159.28	0	270	<0.50	<0.50	<0.50	<1.0	
	188.58	3/17/2008	26.82	161.76	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	6/20/2008	29.10	159.48	0	490	<0.50	<0.50	<0.50	<1.0	

Table 3
Historical Groundwater Monitoring Data and Analytical Results
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	TOC* (ft)	DATE	DTW (ft)	GWE* (ft)	LNAPL (ft)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Comments
MW-3 cont.	188.58	9/11/2008	29.89	158.69	0	630	<5.0	<5.0	<5.0	<10	
	188.58	11/25/2008	29.74	158.84	0	380	<0.50	<0.50	<0.50	<1.0	
	188.58	3/9/2009	25.56	163.02	0	310	<0.50	<0.50	<0.50	<1.0	
	188.58	5/28/2009	27.55	161.03	0	410	<0.50	<0.50	<0.50	<1.0	
	188.58	12/11/2009	29.10	159.48	0	220	<0.50	<0.50	<0.50	<1.0	
	188.58	5/7/2010	25.72	162.86	0	360	<0.50	<0.50	<0.50	<1.0	
	188.58	11/1/2010	29.29	159.29	0	120	<0.50	<0.50	<0.50	<1.0	
	188.58	5/27/2011	26.53	162.05	0	340	<0.50	<0.50	<0.50	<1.0	
	188.58	5/24/2012	25.95	162.63	0	660	<0.50	<0.50	<0.50	<1.0	
	188.58	10/23/2012	29.39	159.19	0	480	<0.50	<0.50	<0.50	<1.0	
	188.58	5/2/2013	26.98	161.60	0	130 [1]	<0.50	<0.50	<0.50	<1.0	
	188.58	11/13/2013	30.28	158.30	0	110	<0.50	<0.50	<0.50	<1.0	
	188.58	5/12/2014	27.93	160.65	0	98 [1]	<0.50	<0.50	<0.50	<1.0	
	188.58	**11/19/2014**	**30.22**	**158.36**	**0**	**180 [1]**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	

NOTES:
* TOC and GWE are in feet above mean sea level.
<# = Analyte not detected at or above indicated laboratory practical quantitation limit
BTEX compounds analyzed by Environmental Protection Agency Method 8260B
TPH-g analyzed by Luft-GC/MS method

ID = Identification
TOC = Top of casing
ft = Feet
DTW = Depth to water
GWE = Groundwater elevation
-- = Not available/Not analyzed
µg/L = Micrograms per liter
LNAPL = Light Non-Aqueous Phase Liquid
bgs = below ground surface

B = Benzene
T = Toluene
E = Ethylbenzene
X = Total Xylenes
TPH-g = Total Petroleum Hydrocarbons as Gasoline
[1] = TPH-g does not exhibit a "gasoline" pattern. TPH-g is entirely due to MTBE.
TPH-g reported as TPPH (total purgeable petroleum hydrocarbons) on some laboratory reports

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	240	<200	<1,000	<4.0	<4.0	<4.0	<4.0	<4.0
	8/27/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	11/23/2004	<0.50	<5.0	<50	<0.50	<1.0	<0.50	<0.50	<0.50
	2/9/2005	9.3	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	5/17/2005	1.9	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	7/27/2005	<0.50	<5.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	12/6/2005	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	2.6	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/8/2006	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/15/2006	1.4	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2006	3.5	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/28/2007	0.64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/25/2007	<0.50	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/22/2007	4.10	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	0.65	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	14	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	6/20/2008	11	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1.3	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	5.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	25	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	17	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	18	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	64	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	92	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-1 cont.	5/27/2011	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	150	41	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	190	66	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	140	47	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	270	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	170 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	**180** [1]	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-2	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	2,100	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	1,400	<5.0	<500	<5.0	24	<5.0	<5.0	<5.0
	11/23/2004	4.2	<5.0	<50	<0.50	18	<0.50	<0.50	<0.50
	2/9/2005	400	<5.0	<500	<5.0	19	<5.0	<5.0	<5.0
	5/17/2005	330	<5.0	<50	<0.50	12	<0.50	<0.50	<0.50
	7/27/2005	580	140	<500	<5.0	16	<5.0	<5.0	<5.0
	12/6/2005	780	61	<250	<0.50	15	<0.50	<0.50	<0.50
	2/21/2006	340	<10	<250	<0.50	18	<0.50	<0.50	<0.50
	6/8/2006	440	<100	<2,500	<5.0	14	<5.0	<5.0	<5.0
	9/15/2006	570	<100	<2,500	<5.0	17	<5.0	<5.0	<5.0
	12/14/2006	770	27	<250	<0.50	20	<0.50	<0.50	<0.50
	3/28/2007	460	260	<250	<0.50	23	<0.50	<0.50	<0.50
	6/25/2007	1.2	<10	<250	<0.50	23	<0.50	<0.50	<0.50
	9/22/2007	530	<10	<250	<0.50	35	<0.50	<0.50	<0.50
	12/14/2007	930	48	<250	<0.50	24	<0.50	<0.50	<0.50

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-2 cont.	3/17/2008	630	<100	<2,500	<5.0	18	<5.0	<5.0	<5.0
	6/20/2008	1,200	<10	<250	<0.50	16	<0.50	<0.50	<0.50
	9/11/2008	29	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/25/2008	1,500	<10	<250	<0.50	19	<0.50	<0.50	<0.50
	3/9/2009	1,400	<100	<2,500	<5.0	15	<5.0	<5.0	<5.0
	5/28/2009	740	<10	<250	<0.50	20	<0.50	<0.50	<0.50
	12/11/2009	1,300	<100	<2,500	<5.0	19	<5.0	<5.0	<5.0
	5/7/2010	940	<20	<500	<1.0	14	<1.0	<1.0	<1.0
	11/1/2010	730	<10	<250	<0.50	28	<0.50	<0.50	<0.50
	5/27/2011	1,100	210	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/23/2011	1,500	400	<250	<0.50	9.00	<0.50	<0.50	<0.50
	5/24/2012	1,200	430	<250	<0.50	8.8	<0.50	<0.50	<0.50
	10/23/2012	1,300	420	<250	<0.50	14	<0.50	<0.50	<0.50
	5/2/2013	460	<10	<250	6.2	<0.50	<0.50	<0.50	<0.50
	11/13/2013	1,300	<10	<250	17	<0.50	<0.50	<0.50	<0.50
	5/12/2014	510 [1]	44	<250	12	<0.50	<0.50	<0.50	<0.50
	11/19/2014	**980** [1]	**<10**	**<250**	**31**	**<0.50**	**<0.50**	**<0.50**	**<0.50**
MW-3	1/5/1990	--	--	--	--	--	--	--	--
	5/11/1990	--	--	--	--	--	--	--	--
	8/9/1990	--	--	--	--	--	--	--	--
	11/14/1990	--	--	--	--	--	--	--	--
	2/12/1991	--	--	--	--	--	--	--	--
	5/9/1991	--	--	--	--	--	--	--	--
	11/13/2003	3,700	<4,000	<20,000	<80	<80	<80	<80	<80
	8/27/2004	2,600	<100	<1,000	<10	<20	<10	<10	<10
	11/23/2004	1,800	<100	<1,000	<10	<20	<10	<10	<10
	2/9/2005	2,100	130	<1,000	<10	<10	<10	<10	<10
	5/17/2005	1,200	<100	<1,000	<10	<10	<10	<10	<10
	7/27/2005	1,400	360	<1,000	<10	<10	<10	<10	<10

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)
MW-3 cont.	12/6/2005	1,800	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	2/21/2006	1,100	88	<250	<0.50	<0.50	0.58	<0.50	<0.50
	6/8/2006	1,000	<250	<6,200	<12	<12	<12	<12	<12
	9/15/2006	1,200	<250	<6,200	<12	<12	<12	<12	<12
	12/14/2006	1,300	<200	<5,000	<10	<10	<10	<10	<10
	3/28/2007	860	500	<500	<1.0	<1.0	<1.0	<1.0	<1.0
	6/25/2007	570	11	<250	<0.50	<0.50	<0.50	<0.50	0.65
	9/22/2007	980	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/14/2007	570	26	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/17/2008	520	<10	<250	<0.50	<0.50	<0.50	<0.50	0.65
	6/20/2008	1,300	49	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	9/11/2008	1,200	<100	<2,500	<5.0	<5.0	<5.0	<5.0	<5.0
	11/25/2008	870	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	3/9/2009	720	15	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/28/2009	750	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	12/11/2009	620	63	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/7/2010	660	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/1/2010	490	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/27/2011	890	73	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/24/2012	1,100	300	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	10/23/2012	500	160	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/2/2013	220	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/13/2013	100	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	5/12/2014	160 [1]	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50
	11/19/2014	**250** [1]	**<10**	**<250**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**

Table 4
Historical Groundwater Analytical Results - Oxygenate Compounds
Unocal No. 6129 (351639)
3420 35th Avenue
Oakland, California

WELL ID	DATE	MTBE (µg/L)	TBA (µg/L)	ETHANOL (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	EDB (µg/L)	EDC (µg/L)

NOTES:

Oxygenate compounds analyzed by Environmental Protection Agency Method 8260B

<# = Analyte not detected at or above indicated laboratory practical quantitation limit

ID = Identification

-- = Not available/Not Analyzed

µg/L = Micrograms per liter

MTBE = Methyl t-butyl ether

TBA = T-butyl alcohol

DIPE = Diisopropyl ether

ETBE = Ethyl t-butyl ether

TAME = T-amyl methyl ether

EDB = 1,2-Dibromoethane

EDC = 1,2-Dichloroethane

[1] = PQLs and MDLs are raised due to sample dilution.

TABLE

HISTORICAL GRAB-GROUNDWATER ANALYTICAL DATA
RO058, UNOCAL 6129 (UNION OIL 351639)
3420 35TH AVENUE
OAKLAND, CA

Sample ID	*Depth (fbg)*	*Date*	*TPHg*	*TPHd*	*TPPH*	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Ethanol*
								(concentrations in µg/L)							
B-2	35	11/7/2006	--	--	**4,100**	<0.50	<0.50	**14**	**370**	**1,200**	**80**	<0.50	<0.50	**0.72**	<250
B-7	31	11/8/2006	--	--	**490**	<0.50	<0.50	**4.5**	**1**	**890**	**52**	<0.50	<0.50	<0.50	<250
B-8	37	11/7/2006	--	--	**500**	<0.50	<0.50	<0.50	<0.50	**990**	**85**	<0.50	<0.50	**0.59**	<250
B-9	16	11/18/2006	--	--	<250	<2.5	<2.5	<2.5	**3.6**	**61**	<50	<2.5	<2.5	<2.5	<1,200
B-10	35	12/27/2006	--	--	**270**	<0.50	<0.50	<0.50	<0.50	**420**	**15**	<0.50	<0.50	<0.50	<250
B-12	30	12/27/2006	--	--	**310**	<0.50	<0.50	<0.50	<0.50	**450**	**25**	**7.2**	<0.50	<0.50	<250
B-14	29	11/8/2006	--	--	**650**	<0.50	<0.50	<0.50	<0.50	**2,500**	**180**	**1.2**	<0.50	**0.97**	<250
B-15	32	12/27/2006	--	--	**120**	<0.50	<0.50	<0.50	<0.50	**210**	<10	**4.6**	<0.50	<0.50	<250
B-16	32	12/27/2006	--	--	**120**	<0.50	<0.50	<0.50	<0.50	**180**	<10	**8.4**	<0.50	<0.50	<250

Abbreviations/Notes

Concentrations reported in micrograms per liter (µg/L).
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015 Modified
TPHd= Total Petroleum hydrocarbons as diesel
TPPH= Total Purgeable Petroleum Hydrocarbons by EPA Method 8260B
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B
MTBE = Methyl tertiary butyl ether by EPA Method 8260B
TBA= tertiary butyl alcohol by EPA Method 8260
DIPE= di-isopropyl ether by EPA Method 8260
ETBE= ethyl tertiary butyl ether by EPA Method 8260
TAME= tertiary amyl methyl ether by EPA Method 8260
fbg = Feet below grade
µg/L = Micrograms per liter
<x = Not detected at or above laboratory detection limit
- = Not analyzed
BOLD concentrations are detected above the laboratory reporting limit for that constituent.

Appendix C

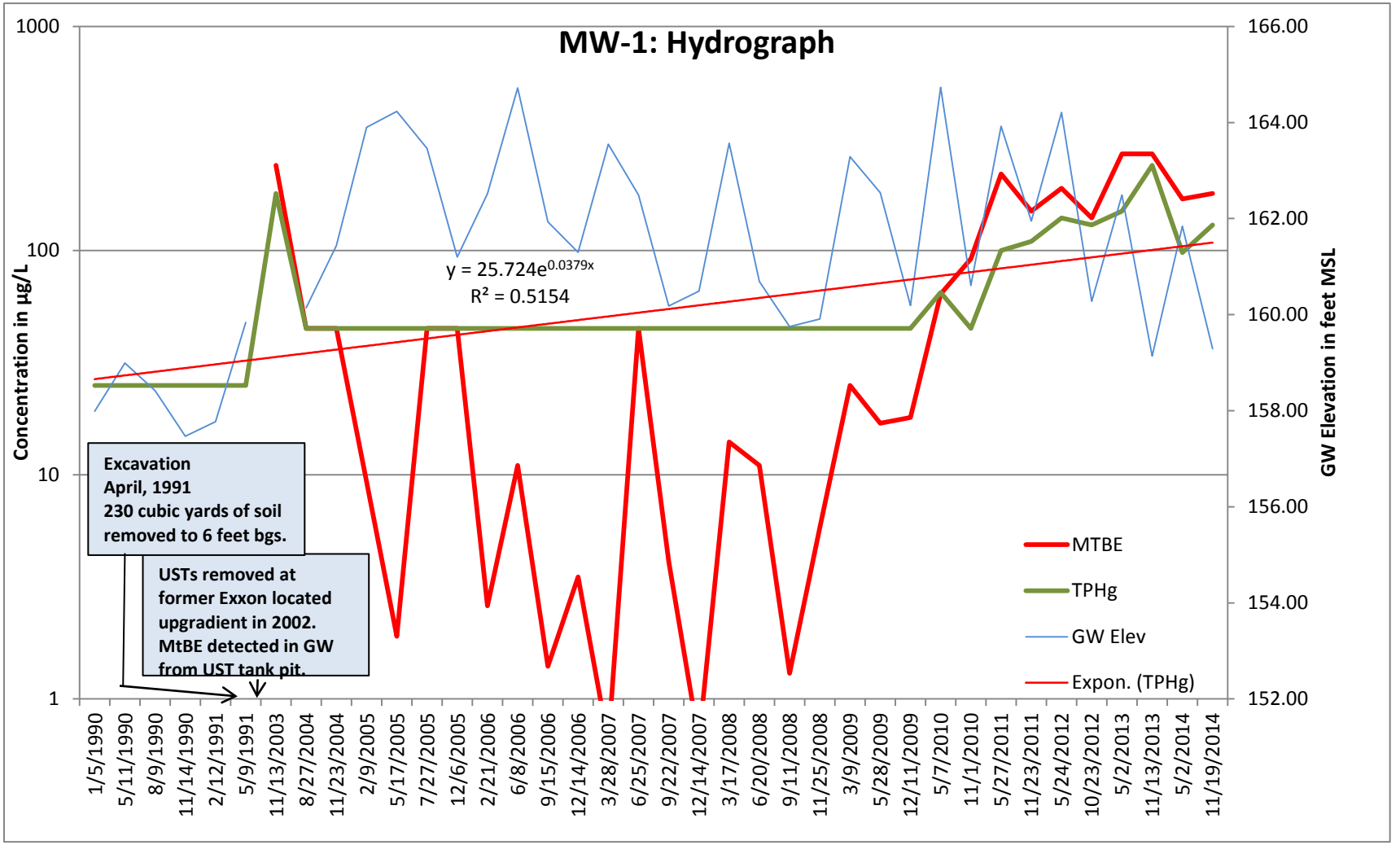

MW-1: Hydrograph
Concentration in µg/L
GW Elevation in feet MSL
1000
100
10
1
166.00
164.00
162.00
160.00
158.00
156.00
154.00
152.00
y = 25.724e^0.0379x
R² = 0.5154
Excavation
April, 1991
230 cubic yards of soil
removed to 6 feet bgs.
USTs removed at
former Exxon located
upgradient in 2002.
MtBE detected in GW
from UST tank pit.
MTBE
TPHg
GW Elev
Expon. (TPHg)
1/5/1990
5/11/1990
8/9/1990
11/14/1990
2/12/1991
5/9/1991
11/13/2003
8/27/2004
11/23/2004
2/9/2005
5/17/2005
7/27/2005
12/6/2005
2/21/2006
6/8/2006
9/15/2006
12/14/2006
3/28/2007
6/25/2007
9/22/2007
12/14/2007
3/17/2008
6/20/2008
9/11/2008
11/25/2008
3/9/2009
5/28/2009
12/11/2009
5/7/2010
11/1/2010
5/27/2011
11/23/2011
5/24/2012
10/23/2012
5/2/2013
11/13/2013
5/2/2014
11/19/2014

Chart 5: Mann-Kendall Statistical Method Worksheet

Site-- RO 058, Unocal #6129
Compound-- TPHg
Well-- MW-1, all results

Input data from four to ten sampling events in Row 10.

Date:	5/7/2010	11/1/2010	5/27/2011	11/23/2011	5/24/2012	10/23/2012	5/2/2013	11/13/2013	5/2/2014	11/19/2014	**Events**
Concentration (ug/L):	65	45	100	110	140	130	150	240	98	130	10
	--	--	--	--	--	--	--	--	--	--	**Sum**
Compared to Event 1	*****	-1	1	1	1	1	1	1	1	1	7
Compared to Event 2	*****	*****	1	1	1	1	1	1	1	1	8
Compared to Event 3	*****	*****	*****	1	1	1	1	1	-1	1	5
Compared to Event 4	*****	*****	*****	*****	1	1	1	1	-1	1	4
Compared to Event 5	*****	*****	*****	*****	*****	-1	1	1	-1	-1	-1
Compared to Event 6	*****	*****	*****	*****	*****	*****	1	1	-1	0	1
Compared to Event 7	*****	*****	*****	*****	*****	*****	*****	1	-1	-1	0
Compared to Event 8	*****	*****	*****	*****	*****	*****	*****	*****	-1	-1	-2
Compared to Event 9	*****	*****	*****	*****	*****	*****	*****	*****	*****	1	1

Mann-Kendall Statistic 'S' = **23**

Statistical Confidence Level

>90% Confidence

I S I ≥ 15

Result: Increasing Trend

>95% Confidence

I S I ≥ 20

Result: Increasing Trend

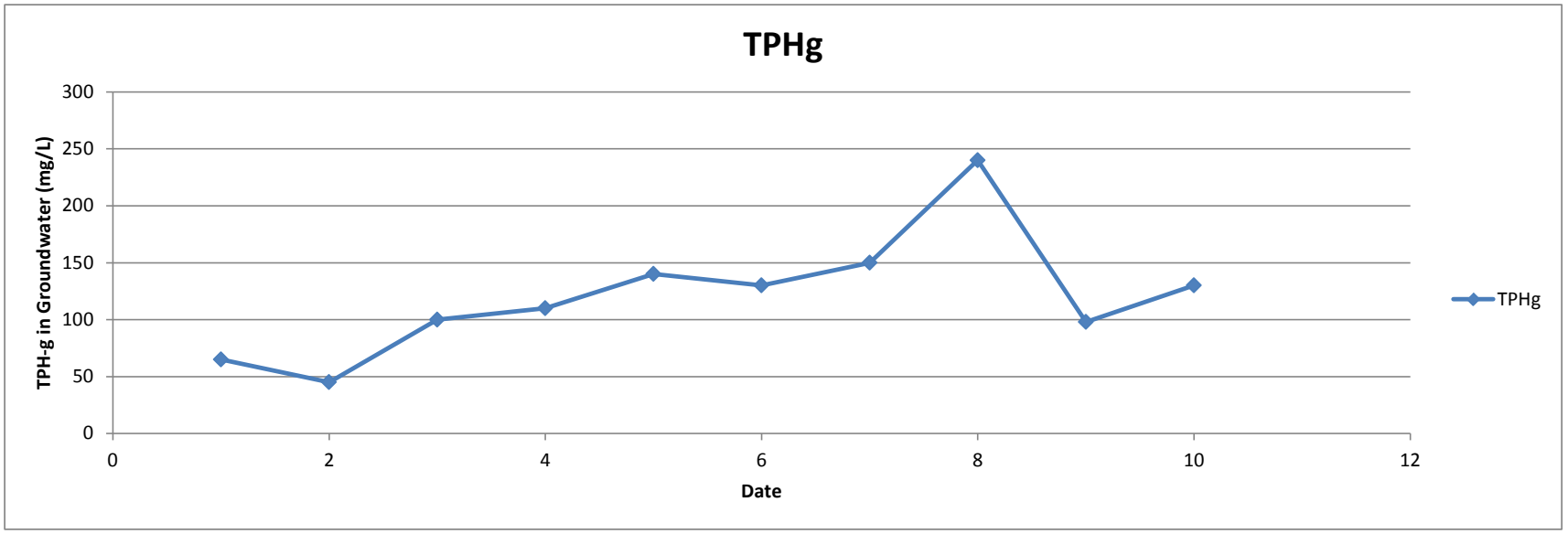

TPHg
TPH-g in Groundwater (mg/L)
300
250
200
150
100
50
0
0
2
4
6
8
10
12
Date
TPHg

Chart 5: Mann-Kendall Statistical Method Worksheet

Site-- RO 058, Unocal #6129
Compound-- MTBE
Well-- MW-1, all results

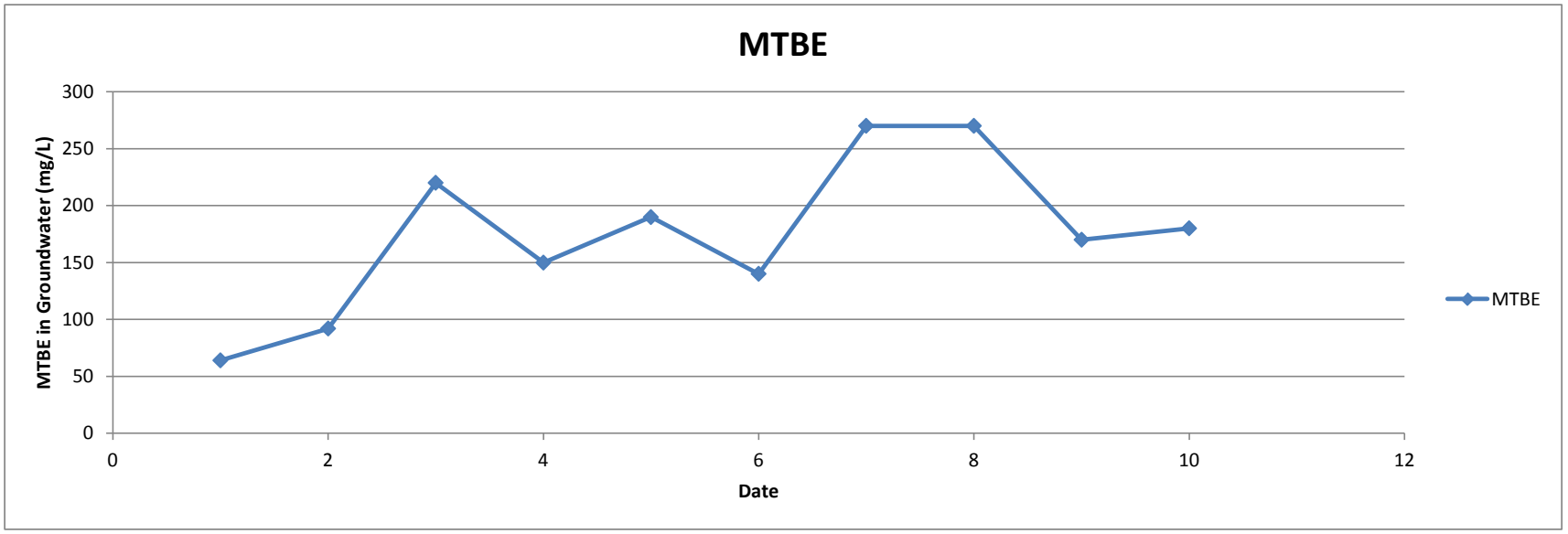
Input data from four to ten sampling events in Row 10.

Date:	5/7/2010	11/1/2010	5/27/2011	11/23/2011	5/24/2012	10/23/2012	5/2/2013	11/13/2013	5/2/2014	11/19/2014	**Events**
Concentration (ug/L):	64	92	220	150	190	140	270	270	170	180	10
	--	--	--	--	--	--	--	--	--	--	**Sum**
Compared to Event 1	*****	1	1	1	1	1	1	1	1	1	9
Compared to Event 2	*****	*****	1	1	1	1	1	1	1	1	8
Compared to Event 3	*****	*****	*****	-1	-1	-1	1	1	-1	-1	-3
Compared to Event 4	*****	*****	*****	*****	1	-1	1	1	1	1	4
Compared to Event 5	*****	*****	*****	*****	*****	-1	1	1	-1	-1	-1
Compared to Event 6	*****	*****	*****	*****	*****	*****	1	1	1	1	4
Compared to Event 7	*****	*****	*****	*****	*****	*****	*****	0	-1	-1	0
Compared to Event 8	*****	*****	*****	*****	*****	*****	*****	*****	-1	-1	-2
Compared to Event 9	*****	*****	*****	*****	*****	*****	*****	*****	*****	1	1

Mann-Kendall Statistic 'S' = **20**

Statistical Confidence Level

>90% Confidence		**>95% Confidence**	
I S I ≥	15	**I S I ≥**	20
Result:	Increasing Trend	**Result:**	Increasing Trend


MTBE
MTBE in Groundwater (mg/L)
300
250
200
150
100
50
0
0
2
4
6
8
10
12
Date
MTBE

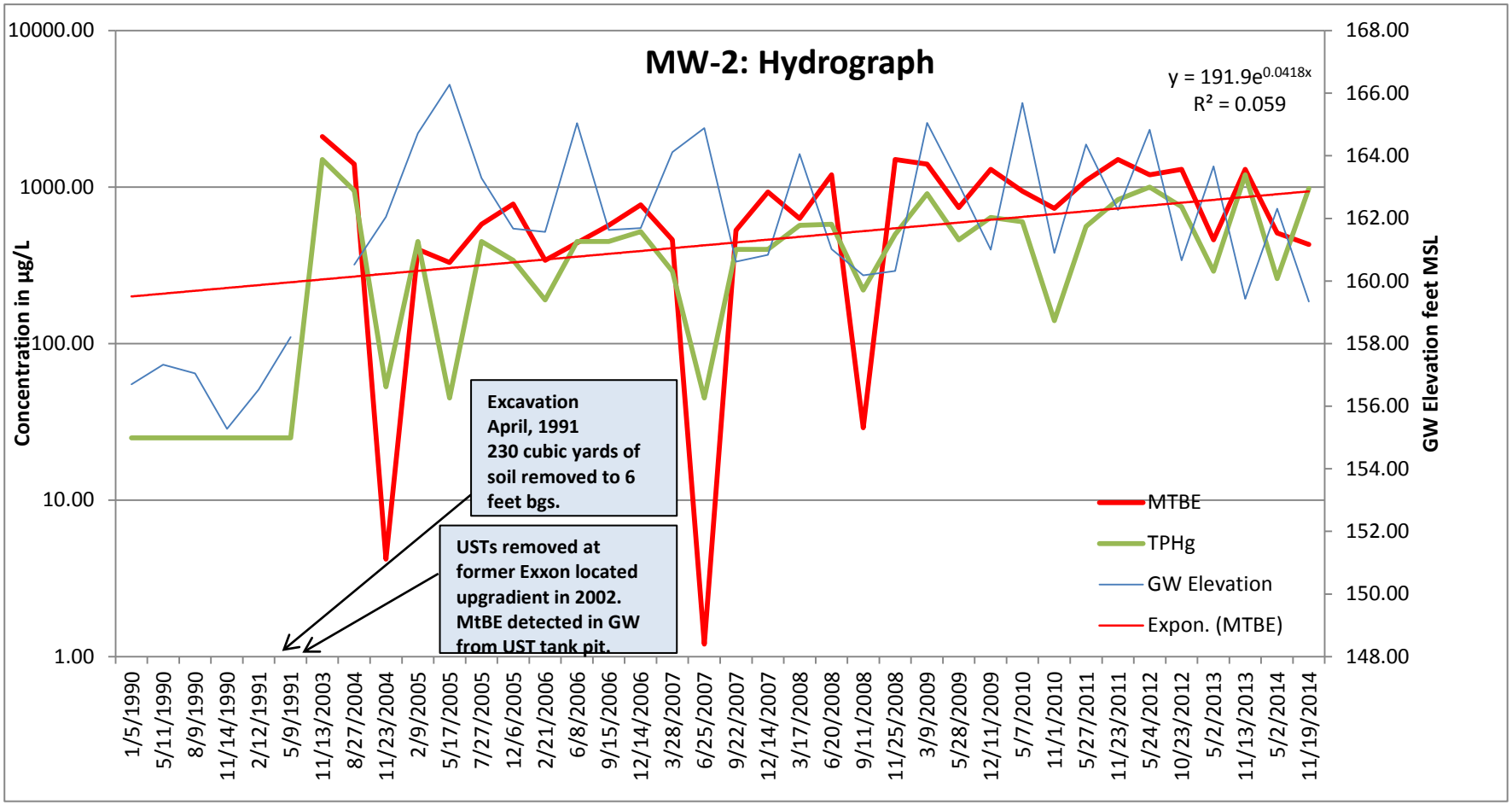

MW-2: Hydrograph
y = 191.9e^0.0418x
R² = 0.059
Concentration in µg/L
GW Elevation feet MSL
10000.00
1000.00
100.00
10.00
1.00
168.00
166.00
164.00
162.00
160.00
158.00
156.00
154.00
152.00
150.00
148.00
Excavation
April, 1991
230 cubic yards of soil removed to 6 feet bgs.
USTs removed at former Exxon located upgradient in 2002. MtBE detected in GW from UST tank pit.
MTBE
TPHg
GW Elevation
Expon. (MTBE)
1/5/1990
5/11/1990
8/9/1990
11/14/1990
2/12/1991
5/9/1991
11/13/2003
8/27/2004
11/23/2004
2/9/2005
5/17/2005
7/27/2005
12/6/2005
2/21/2006
6/8/2006
9/15/2006
12/14/2006
3/28/2007
6/25/2007
9/22/2007
12/14/2007
3/17/2008
6/20/2008
9/11/2008
11/25/2008
3/9/2009
5/28/2009
12/11/2009
5/7/2010
11/1/2010
5/27/2011
11/23/2011
5/24/2012
10/23/2012
5/2/2013
11/13/2013
5/2/2014
11/19/2014

Chart 5: Mann-Kendall Statistical Method Worksheet

Site-- RO 058, Unocal #6129
Compound-- TPHg
Well-- MW-2, all results

Input data from four to ten sampling events in Row 10.

Date:	5/7/2010	11/1/2010	5/27/2011	11/23/2011	5/24/2012	10/23/2012	5/2/2013	11/13/2013	5/2/2014	11/19/2014	**Events**
Concentration (ug/L):	600	140	560	830	1000	750	290	1200	260	980	10
	--	--	--	--	--	--	--	--	--	--	**Sum**
Compared to Event 1	*****	-1	-1	1	1	1	-1	1	-1	1	1
Compared to Event 2	*****	*****	1	1	1	1	1	1	1	1	8
Compared to Event 3	*****	*****	*****	1	1	1	-1	1	-1	1	3
Compared to Event 4	*****	*****	*****	*****	1	-1	-1	1	-1	1	
Compared to Event 5	*****	*****	*****	*****	*****	-1	-1	1	-1	-1	-3
Compared to Event 6	*****	*****	*****	*****	*****	*****	-1	1	-1	1	
Compared to Event 7	*****	*****	*****	*****	*****	*****	*****	1	-1	1	0
Compared to Event 8	*****	*****	*****	*****	*****	*****	*****	*****	-1	-1	-2
Compared to Event 9	*****	*****	*****	*****	*****	*****	*****	*****	*****	1	1

Mann-Kendall Statistic 'S' = **8**

Statistical Confidence Level

>90% Confidence

I S I ≥ 15

Result: No Trend

>95% Confidence

I S I ≥ 20

Result: No Trend

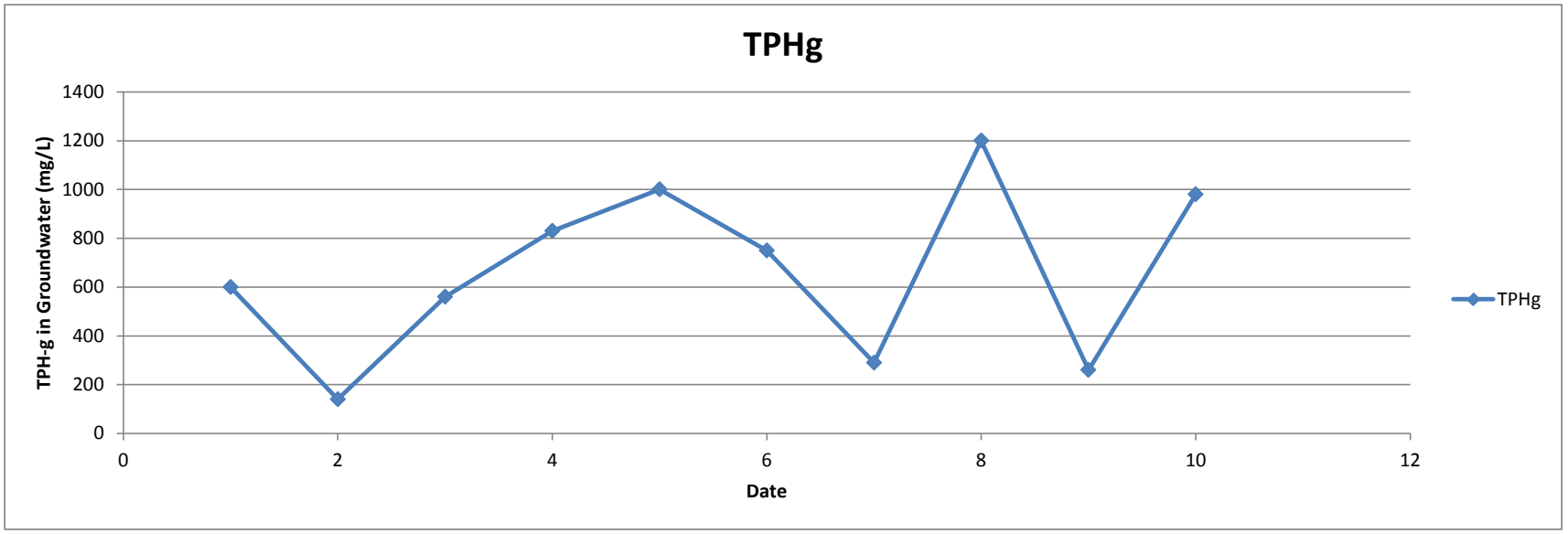

TPHg
TPH-g in Groundwater (mg/L)
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
12
Date
TPHg

Chart 5: Mann-Kendall Statistical Method Worksheet

Site-- RO 058, Unocal #6129
Compound-- MTBE
Well-- MW-2, all results

Input data from four to ten sampling events in Row 10.

Date:	5/7/2010	11/1/2010	5/27/2011	11/23/2011	5/24/2012	10/23/2012	5/2/2013	11/13/2013	5/2/2014	11/19/2014	**Events**
Concentration (ug/L):	940	730	1,100	1,500	1,200	1,300	460	1,300	510	430	10
	--	--	--	--	--	--	--	--	--	--	**Sum**
Compared to Event 1	*****	-1	1	1	1	1	-1	1	-1	-1	1
Compared to Event 2	*****	*****	1	1	1	1	-1	1	-1	-1	2
Compared to Event 3	*****	*****	*****	1	1	1	-1	1	-1	-1	1
Compared to Event 4	*****	*****	*****	*****	-1	-1	-1	-1	-1	-1	-6
Compared to Event 5	*****	*****	*****	*****	*****	1	-1	1	-1	-1	-1
Compared to Event 6	*****	*****	*****	*****	*****	*****	-1	0	-1	-1	-3
Compared to Event 7	*****	*****	*****	*****	*****	*****	*****	1	1	-1	0
Compared to Event 8	*****	*****	*****	*****	*****	*****	*****	*****	-1	-1	-2
Compared to Event 9	*****	*****	*****	*****	*****	*****	*****	*****	*****	-1	-1

Mann-Kendall Statistic 'S' = **-9**

Statistical Confidence Level

>90% Confidence

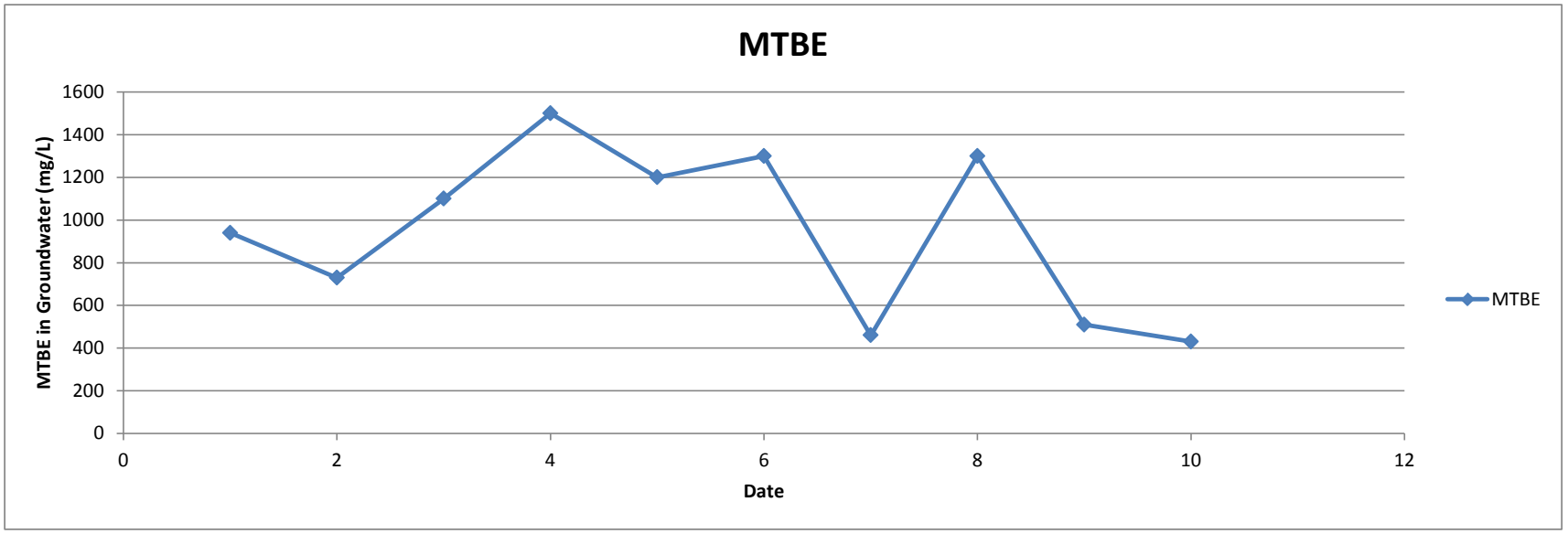
I S I ≥ 15

Result: No Trend

>95% Confidence

I S I ≥ 20

Result: No Trend


MTBE
MTBE in Groundwater (mg/L)
1600
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
12
Date
MTBE

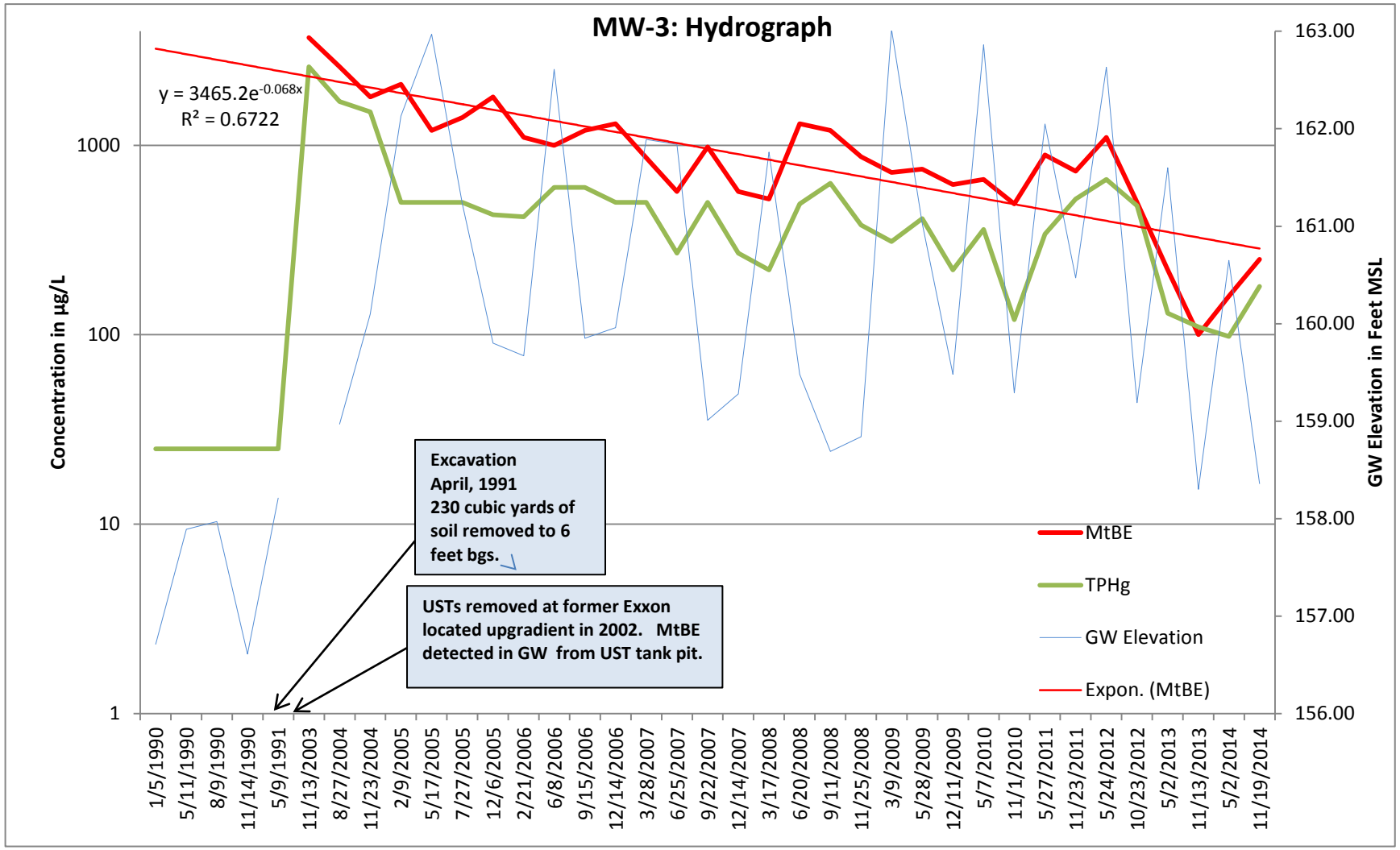

MW-3: Hydrograph
y = 3465.2e-0.068x
R² = 0.6722
Concentration in µg/L
GW Elevation in Feet MSL
1000
100
10
1
163.00
162.00
161.00
160.00
159.00
158.00
157.00
156.00
Excavation
April, 1991
230 cubic yards of soil removed to 6 feet bgs.
USTs removed at former Exxon located upgradient in 2002. MtBE detected in GW from UST tank pit.
MtBE
TPHg
GW Elevation
Expon. (MtBE)
1/5/1990
5/11/1990
8/9/1990
11/14/1990
5/9/1991
11/13/2003
8/27/2004
11/23/2004
2/9/2005
5/17/2005
7/27/2005
12/6/2005
2/21/2006
6/8/2006
9/15/2006
12/14/2006
3/28/2007
6/25/2007
9/22/2007
12/14/2007
3/17/2008
6/20/2008
9/11/2008
11/25/2008
3/9/2009
5/28/2009
12/11/2009
5/7/2010
11/1/2010
5/27/2011
11/23/2011
5/24/2012
10/23/2012
5/2/2013
11/13/2013
5/2/2014
11/19/2014

Chart 5: Mann-Kendall Statistical Method Worksheet

Site-- RO 058, Unocal #6129
Compound-- MTBE
Well-- MW-3, all results

Input data from four to ten sampling events in Row 10.

Date:	5/7/2010	11/1/2010	5/27/2011	11/23/2011	5/24/2012	10/23/2012	5/2/2013	11/13/2013	5/2/2014	11/19/2014	**Events**
Concentration (ug/L):	660	490	890	730	1,100	500	220	**100**	160	250	10
	--	--	--	--	--	--	--	--	--	--	**Sum**
Compared to Event 1	*****	-1	1	1	1	-1	-1	-1	-1	-1	-3
Compared to Event 2	*****	*****	1	1	1	1	-1	-1	-1	-1	
Compared to Event 3	*****	*****	*****	-1	1	-1	-1	-1	-1	-1	-5
Compared to Event 4	*****	*****	*****	*****	1	-1	-1	-1	-1	-1	-4
Compared to Event 5	*****	*****	*****	*****	*****	-1	-1	-1	-1	-1	-5
Compared to Event 6	*****	*****	*****	*****	*****	*****	-1	-1	-1	-1	-4
Compared to Event 7	*****	*****	*****	*****	*****	*****	*****	-1	-1	1	0
Compared to Event 8	*****	*****	*****	*****	*****	*****	*****	*****	1	1	2
Compared to Event 9	*****	*****	*****	*****	*****	*****	*****	*****	*****	1	1

Mann-Kendall Statistic 'S' = -18

Statistical Confidence Level

>90% Confidence

I S I ≥ 15

Result: Decreasing Trend

>95% Confidence

I S I ≥ 20

Result: No Trend

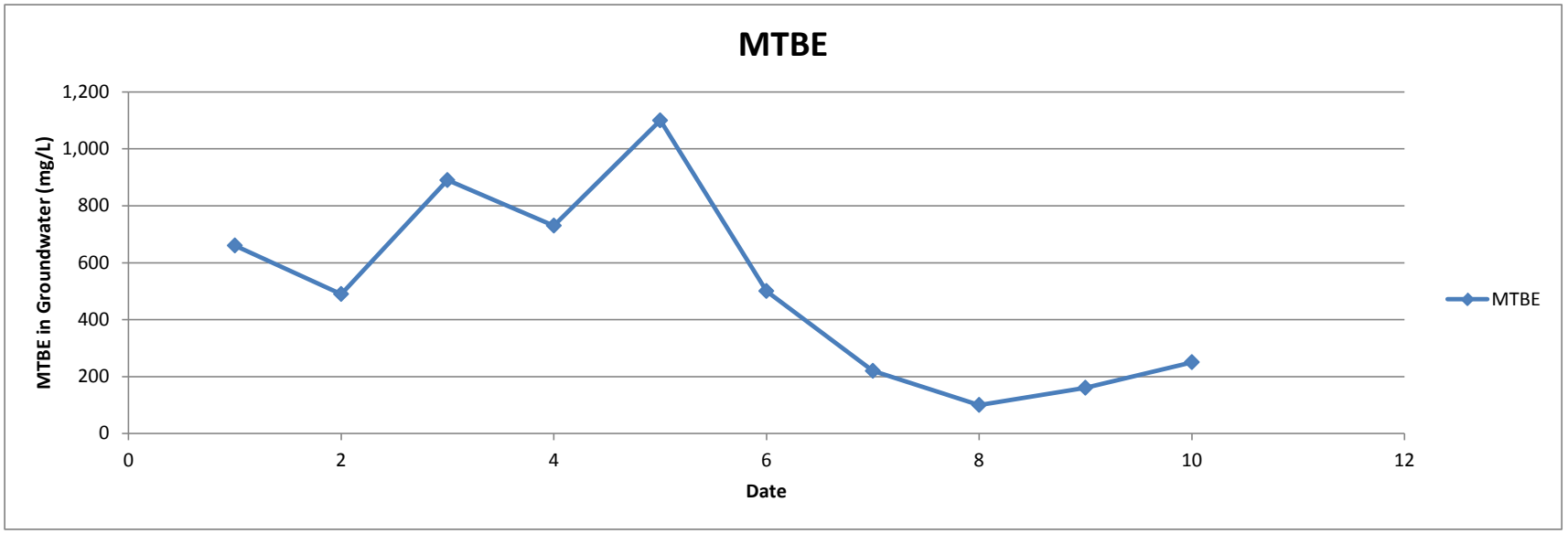

MTBE
MTBE in Groundwater (mg/L)
1,200
1,000
800
600
400
200
0
0
2
4
6
8
10
12
Date
MTBE

Chart 5: Mann-Kendall Statistical Method Worksheet

Site-- RO 058, Unocal #6129
Compound-- TPHg
Well-- MW-3, all results

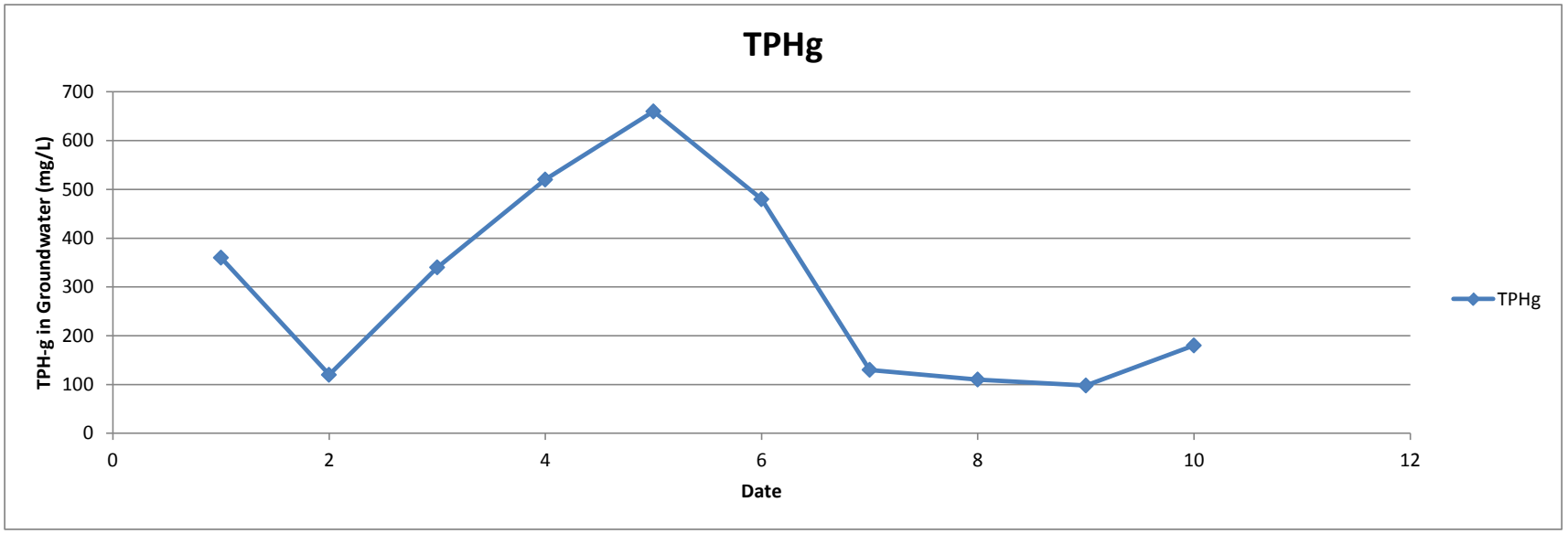
Input data from four to ten sampling events in Row 10.

Date:	5/7/2010	11/1/2010	5/27/2011	11/23/2011	5/24/2012	10/23/2012	5/2/2013	11/13/2013	5/2/2014	11/19/2014	**Events**
Concentration (ug/L):	360	120	340	520	660	480	130	110	98	180	10
	--	--	--	--	--	--	--	--	--	--	**Sum**
Compared to Event 1	*****	-1	-1	1	1	1	-1	-1	-1	-1	-3
Compared to Event 2	*****	*****	1	1	1	1	1	-1	-1	1	4
Compared to Event 3	*****	*****	*****	1	1	1	-1	-1	-1	-1	-1
Compared to Event 4	*****	*****	*****	*****	1	-1	-1	-1	-1	-1	-4
Compared to Event 5	*****	*****	*****	*****	*****	-1	-1	-1	-1	-1	-5
Compared to Event 6	*****	*****	*****	*****	*****	*****	-1	-1	-1	-1	-4
Compared to Event 7	*****	*****	*****	*****	*****	*****	*****	-1	-1	1	0
Compared to Event 8	*****	*****	*****	*****	*****	*****	*****	*****	-1	1	
Compared to Event 9	*****	*****	*****	*****	*****	*****	*****	*****	*****	1	1

Mann-Kendall Statistic 'S' = **-12**

Statistical Confidence Level

>90% Confidence		**>95% Confidence**	
I S I ≥	15	**I S I ≥**	20
Result:	No Trend	**Result:**	No Trend


TPHg
TPH-g in Groundwater (mg/L)
700
600
500
400
300
200
100
0
0
2
4
6
8
10
12
Date
TPHg

Appendix D

TABLE

SOIL ANALYTICAL DATA
RO058, UNOCAL 6129 (UNION OIL 351639)
3420 35TH AVENUE
OAKLAND, CA

Sample ID	*Depth (fbg)*	*Date*	*TPHg*	*TPHd*	*TPPH*	*TOG*	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*Lead*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Ethanol*	*1,2-DCA*	*EDB*
										(concetrations in mg/kg)									
	Gasoline UST Removal																		
A1	14	9/11/1989	**10**	--	--	--	<0.05	<0.05	<0.05	**0.11**	--	--	--	--	--	--	--	--	--
A2	14	9/11/1989	**5**	--	--	--	<0.05	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--
B1	14	9/11/1989	**3**	--	--	--	<0.05	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--
B2	14	9/11/1989	**1.8**	--	--	--	<0.05	<0.05	<0.05	<0.05	--	--	--	--	--	--	--	--	--
						--													
	Product Line					--													
P1	3	9/11/1989	**17**	--	--	--	**0.23**	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
P2	3	9/11/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
P3	3.5	9/11/1989	~~**690**~~	--	--	--	~~**3.2**~~	~~**0.36**~~	~~<0.10~~	~~**19**~~	--	~~**0.058**~~	--	--	--	--	--	--	--
P3	7.5	9/11/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
P4	3.5	9/11/1989	**5**	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
						--													
	Used Oil UST					--													
WO1	9.5	9/11/1989	<1.0	**3.3**	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
						--													
	Over-Excavation around MW-3					--													
SW-1	4.5	4/8/1991	<1.0	--	--	--	<0.005	<0.005	**0.068**	<0.005	--	--	--	--	--	--	--	--	--
SW-2	4.5	4/8/1991	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
SW-3	4.5	4/8/1991	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
SW-4	4.5	4/8/1991	**3**	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
BT-1	6	4/9/1991	<1.0	--	--	--	<0.005	<0.005	<0.005	**0.012**	--	--	--	--	--	--	--	--	--
BT-2	6	4/9/1991	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--
						--													
	Monitoring Well					--													
						--													
MW-1	5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	10	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	15	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	20	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	25	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	29.5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	34.5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
				--	--	--													
MW-2	5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	10	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	14.5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	20	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	25	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--

TABLE

SOIL ANALYTICAL DATA
RO058, UNOCAL 6129 (UNION OIL 351639)
3420 35TH AVENUE
OAKLAND, CA

Sample ID	*Depth (fbg)*	*Date*	*TPHg*	*TPHd*	*TPPH*	*TOG*	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*Lead*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Ethanol*	*1,2-DCA*	*EDB*
	27	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	30	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	33.5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	35	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
				--	--	--													
MW-3	5	12/12/1989	**1,200**	--	--	--	**4.5**	**2**	**21**	**6.3**	--	--	--	--	--	--	--	--	--
	10	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	15	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	20	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	25	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	30	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	34.5	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
	36	12/12/1989	<1.0	--	--	--	<0.05	<0.10	<0.10	<0.10	--	--	--	--	--	--	--	--	--
						--													
	Soil Borings			--	--	--						--	--	--	--	--	--	--	--
EB1	~~5~~	~~3/14/1990~~	~~**1100**~~	~~--~~	~~--~~	~~--~~	~~**1.8**~~	~~**2.5**~~	~~**10**~~	~~**7**~~	--	--	--	--	--	--	--	--	--
	10	3/14/1990	<1.0	--	--	--	**0.005**	**0.034**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
						--													
EB-2	~~8~~	~~3/14/1990~~	~~<1.0~~	~~--~~	~~--~~	~~--~~	~~<0.005~~	~~**0.08**~~	~~<0.005~~	~~<0.005~~	--	--	--	--	--	--	--	--	--
	10	3/14/1990	<1.0	--	--	--	<0.005	**0.07**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
						--													
EB-3	~~5~~	~~3/14/1990~~	~~**58**~~	~~--~~	~~--~~	~~--~~	~~<0.005~~	~~**0.068**~~	~~**0.09**~~	~~**0.31**~~	--	--	--	--	--	--	--	--	--
	10	3/14/1990	**3**	--	--	--	**0.12**	**0.036**	<0.005	**0.0072**	--	--	--	--	--	--	--	--	--
						--													
EB-4	5	3/14/1990	<1.0	--	--	--	**0.1**	**0.06**	**0.013**	**0.024**	--	--	--	--	--	--	--	--	--
	10	3/14/1990	<1.0	--	--	--	<0.005	**0.055**	<0.005	<0.005	--	--	--	--	--	--	--	--	--
						--													
SB-1	31	11/12/2003	<3.4	--	--	<50	<0.017	<0.017	<0.017	<0.017	**0.41**	**3.9**	<0.034	<0.034	<0.017	<0.017	<0.34	--	--
						--													
SB-3	26	11/12/2003	<3.5	--	--	--	<0.017	<0.017	<0.017	<0.017	**0.37**	--	<0.035	<0.035	<0.017	<0.017	<0.35	--	--
						--													
SB-4	26	11/13/2003	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	<0.010	<0.010	<0.005	<0.005	<0.1	<0.005	<0.005
						--													
SB-5	31	11/13/2003	<1.0	--	--	--	<0.005	<0.005	<0.005	<0.005	**0.055**	**5.8**	<0.005	<0.010	<0.005	<0.005	<0.1	<0.005	<0.005
						--													
B-2	6	11/7/2006	--	--	**10**	--	<0.005	<0.005	**0.0056**	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	11	11/7/2006	--	--	**0.23**	--	<0.005	<0.005	<0.005	<0.010	**0.023**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	16	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.0082**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	21	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.019**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	26	11/7/2006	--	--	**92**	--	<0.005	<0.005	<0.005	**0.99**	**0.017**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	31	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.0054**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	36	11/7/2006	--	--	**0.22**	--	<0.005	<0.005	<0.005	<0.010	**0.17**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--

TABLE

SOIL ANALYTICAL DATA
RO058, UNOCAL 6129 (UNION OIL 351639)
3420 35TH AVENUE
OAKLAND, CA

Sample ID	*Depth (fbg)*	*Date*	*TPHg*	*TPHd*	*TPPH*	*TOG*	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*Lead*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Ethanol*	*1,2-DCA*	*EDB*
	39.5	11/7/2006	--	--	**0.37**	--	<0.005	<0.005	<0.005	**0.025**	**0.061**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-7	6	11/8/2006	--	--	**220**	--	<0.12	<.0.12	**0.46**	**0.51**	<0.12	--	<5.0	<0.12	<0.025	<0.025	<25	--	--
	10	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	16	11/8/2006	--	--	**0.25**	--	<0.005	<0.005	<0.005	<0.010	**0.12**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	21	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.087**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	26	11/8/2006	--	--	**0.22**	--	<0.005	<0.005	<0.005	<0.010	**0.10**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	31	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.024**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-8	6	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.051**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	11	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.051**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	16	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.041**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	21	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.029**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	26	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.050**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	31	11/7/2006	--	--	**0.24**	--	<0.005	<0.005	<0.005	<0.010	**0.24**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	36	11/7/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	39.5	11/7/2006	--	--	**0.24**	--	<0.005	<0.005	<0.005	<0.010	**0.15**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-9	6	11/18/2006	--	--	**0.33**	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	11	11/18/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.014**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	16	11/18/2006	--	--	**0.23**	--	<0.005	<0.005	<0.005	<0.010	**0.093**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	21	11/18/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.046**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--												--	--
B-10	5.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	10.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.017**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	15.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.13**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	20.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	25.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.094**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	30.5	12/27/2006	--	--	**0.48**	--	<0.005	<0.005	<0.005	<0.010	**0.53**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	35.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.067**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-12	5.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	10.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	15.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.059**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	20.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.025**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	25.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.052**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	30.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.047**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	35.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.12**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-14	6	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	11	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--

TABLE

SOIL ANALYTICAL DATA
RO058, UNOCAL 6129 (UNION OIL 351639)
3420 35TH AVENUE
OAKLAND, CA

Sample ID	*Depth (fbg)*	*Date*	*TPHg*	*TPHd*	*TPPH*	*TOG*	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*Lead*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Ethanol*	*1,2-DCA*	*EDB*
	16	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	21	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	26	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.019**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	31	11/8/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-15	5.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	10.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	15.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	20.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	25.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	30.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	35.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.24**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-16	5.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	10.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.007**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	15.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.044**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	20.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.017**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	25.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.011**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	30.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	<0.005	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
	35.5	12/27/2006	--	--	<0.20	--	<0.005	<0.005	<0.005	<0.010	**0.015**	--	<0.20	<0.005	<0.0010	<0.0010	<1.0	--	--
						--													
B-17	10	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.0072**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	20	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.011**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	30	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.010**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	40	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.022**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	50	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.006**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
B-18	10	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	20	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.028**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	30	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.022**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	40	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	50	10/23/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.018**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
B-19	10	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	20	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.10**	--	**0.067**	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	31	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	40	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	50	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
B-20	10	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005

TABLE

SOIL ANALYTICAL DATA
RO058, UNOCAL 6129 (UNION OIL 351639)
3420 35TH AVENUE
OAKLAND, CA

Sample ID	*Depth (fbg)*	*Date*	*TPHg*	*TPHd*	*TPPH*	*TOG*	*Benzene*	*Toluene*	*Ethylbenzene*	*Total Xylenes*	*MTBE*	*Lead*	*TBA*	*DIPE*	*ETBE*	*TAME*	*Ethanol*	*1,2-DCA*	*EDB*
	20	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	31	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	40	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	**0.16**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	50	10/26/2009	<0.20	--	--	--	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
B-21	10	10/22/2009	<0.20	--	--	<50	<0.005	<0.005	<0.005	<0.01	**0.024**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	20	10/22/2009	<0.20	--	--	<50	<0.005	<0.005	<0.005	<0.01	**0.036**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	30	10/22/2009	<0.20	--	--	<50	<0.005	<0.005	<0.005	<0.01	**0.035**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	40	10/22/2009	<0.20	--	--	<50	<0.005	<0.005	<0.005	<0.01	<0.005	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005
	50	10/22/2009	<0.20	--	--	<50	<0.005	<0.005	<0.005	<0.01	**0.013**	--	<0.05	<0.005	<0.005	<0.005	<1.0	<0.005	<0.005

Abbreviations/Notes
Results reported in milligrams per kilogram (mg/kg)
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015 Modified or EPA Method 8260B
TPHd= Total petroleum hydrocarbons as diesel
TPPH= Total purgeable petroleum hydrocarbons by EPA Method 8260B
TOG= Total oil and grease by EPA Method 1664
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8260B
MTBE = Methyl tertiary butyl ether by EPA Method 8260B
TBA= tertiary butyl alcohol by EPA Method 8260B
DIPE= di-isopropyl ether by EPA Method 8260B
ETBE= ethyl tertiary butyl ether by EPA Method 8260B
TAME= tertiary amyl methyl ether by EPA Method 8260B
1,2-DCA= 1,2-Dichloroethane by EPA Method 8260B
EDB= 1,2-Dibromoethane by EPA Method 8260B
Lead = Total lead by Method 6010
Ethanol by EPA Method 8260B
~~strikethrough~~ = Sampling point overexcavated
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at or above laboratory detection limit
- = Not analyzed