

## Nowell, Keith, Env. Health

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**From:** Nowell, Keith, Env. Health  
**Sent:** Wednesday, June 13, 2018 3:38 PM  
**To:** Lynn Worthington (CafeRealty@aol.com)  
**Cc:** Pat Hoban (pat@weber-hayes.com); Craig Drizin; Casey Satkowski (Casey.Satkowski@Waterboards.ca.gov); Sheehan, Caryl@Waterboards; Roe, Dilan, Env. Health (Dilan.Roe@acgov.org); Khatri, Paresh, Env. Health  
**Subject:** Well Destruction Authorization- Exxon, 3055 35th Street, Alameda County (CUF#1275/ Case#RO0271)  
**Attachments:** RO271\_DIR\_L\_2018-06-13\_Attachment.pdf; Att-1\_Att-2cvr\_WellDest-IDW\_FS.pdf

Dear Mr. Worthington,

Alameda County Department of Environmental Health (ACDEH) staff has reviewed the case files for subject site and authorize the destruction of groundwater monitoring wells and remediation wells comprising the well network. The on-site soil vapor probes may also be destroyed.

The data (visual, olfactory, and photoionization detector –PID- readings) presented in the boring logs and the laboratory analysis data provided in the electronic mail correspondence dated March 1, 2018 supports the hypothesis that shallow groundwater impacts may have occurred at the site (see attached file RO271\_DIR\_L\_2018-06-13\_Attachment). Therefore, ACDEH requests that you retain the piezometers installed in July 2017 (including the on-site PZ-1A and PZ-1B) for future monitoring.

Please submit the well destruction report documenting site activities by **September 12, 2018** to California State Water Resources Control Board (SWRCB) GeoTracker website. Please refer to Attachments 1 and 2 for addition information regarding submittal requirements.

Additionally prior to case closure consideration, please insure the case is GeoTracker compliant and all submittals have been performed. ACDEH requests a review of GeoTracker for a determination of missing submittals. Please provide ACDEH with a listing of the uploaded documents via electronic mail, Attention: Keith Nowell, by **July 29, 2018**.

Thank you for your cooperation. ACDEH looks forward to working with you and your consultants to advance the case toward closure. Should you have any questions regarding this correspondence or your case, please call me at (510) 567-6764 or send an electronic mail message at [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org).

Regards,  
Keith Nowell

**Keith Nowell PG, CHG**  
Hazardous Materials Specialist  
Land Water Division  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6540  
phone: 510 / 567 - 6764  
fax: 510 / 337 - 9335  
electronic mail: [keith.nowell@acgov.org](mailto:keith.nowell@acgov.org)

## Attachment 1

### Responsible Party(ies) Legal Requirements / Obligations

#### REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.waterboards.ca.gov/water\\_issues/programs/ust/electronic\\_submittal/](http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

#### AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> May 15, 2014
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010, July 25, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

## REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

## Submission Instructions

- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org)
  - b) In the subject line of your request, be sure to include "**ftp PASSWORD REQUEST**" and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [deh.loptoxic@acgov.org](mailto:deh.loptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

# ATTACHMENT 2



# Fact Sheet

## Well Destruction and Waste Removal Requirements Prior to Underground Storage Tank Case Closure

Background: Proper destruction of wells helps to protect groundwater from potential threats and is a critical component of the Underground Storage Tank (UST) case closure process. The Low-Threat Underground Storage Tank (UST) Case Closure Policy (Policy) mandates that monitoring wells be properly destroyed prior to UST case closure, unless they will be kept and maintained in accordance with applicable local and state requirements. The Policy also mandates that all investigation and remediation-derived waste materials be removed prior to case closure. As of May 15, 2015, there were a total of 836 “Open-Eligible for Closure” cases throughout California, for which remaining wells and wastes served as impediments to closure.

### Information for Responsible Parties and

Site Owners: If you received a letter from the State Water Resources Control Board (State Water Board), Regional Water Quality Control Board, or a local agency directing well destruction and waste removal, you must take action before your UST case can be closed. A uniform closure letter (UCL) will not be issued for your case until the wastes are removed and the wells are either destroyed or approved for continued maintenance by the regulatory agency overseeing your UST case. Your local well permitting agency may require ongoing monitoring of wells even though the regulatory agency is not requiring it, so additional costs may be incurred. A list of open cases with directives to destroy wells and remove wastes can be viewed on the public GeoTracker webpage at: [http://geotracker.waterboards.ca.gov/ptcp\\_destruction\\_report.asp](http://geotracker.waterboards.ca.gov/ptcp_destruction_report.asp).

**Note:** The State Water Board has the authority to administratively impose civil penalties of up to \$10,000 per day per UST on responsible parties and site owners that fail to comply with the requirements of UST case closure order. **Do not let penalties be imposed on you!**

The contractor that helped you with corrective actions at your site can provide more information about the well destruction and waste removal process. If you do not currently have

**Important:** Check the current standing of any contractor with the California Contractors State License Board. You can do this at the following location on the web: <https://www2.cslb.ca.gov/OnlineServices/CheckLicense.aspx>

a contractor, you can contact the regulatory agency that is responsible for oversight of your UST case and ask if they have a list of contractors in the area. Your regulatory agency can also let you know if your contractor is required to submit a work plan for approval before well destruction and waste removal begins. Once the work is complete, submit confirmation documentation to the regulatory agency overseeing your UST case. After the well and waste



removal has been completed, approved by your regulatory agency, and communicated to the State Water Board, a UCL will be issued and uploaded to GeoTracker.

If you have an eligible claim with the UST Cleanup Fund, the cost of well destruction is considered corrective action and reasonable and necessary costs are typically reimbursable. Monitoring of wells after you have been informed that the wells should be destroyed is not normally considered to be corrective action and may not be eligible for reimbursement. Additional information can be obtained on the State Water Board UST Cleanup Fund (Fund) website at: [http://www.waterboards.ca.gov/water\\_issues/programs/ustcf/](http://www.waterboards.ca.gov/water_issues/programs/ustcf/). You may also contact the Fund staff by email: [ustcleanupfund@waterboards.ca.gov](mailto:ustcleanupfund@waterboards.ca.gov), message phone line: 1-800-813-Fund (3863), or fax: 916-341-5806.

Information for Consultants/Contractors/Drillers: A list of open cases with directives to destroy wells can be viewed on the public GeoTracker webpage at: [http://geotracker.waterboards.ca.gov/ptcp\\_destruction\\_report.asp](http://geotracker.waterboards.ca.gov/ptcp_destruction_report.asp). Seek approval with regulatory agencies having jurisdiction before performing any well destruction work. Encroachment permits and/or access agreements may also be necessary. A list of local well-permitting agencies can be found at: <http://water.ca.gov/groundwater/wells/permitting.cfm>

Reference: *Plan for Implementation of Low-Threat UST Case Closure Policy and Additional Program Improvements*  
([http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2012/110612\\_6\\_final\\_ltcp%20imp%20plan.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/110612_6_final_ltcp%20imp%20plan.pdf)).

*(This fact sheet was last updated May 21, 2015.)*



### Piezometer Analytical Results

Former Exxon Station, 3055 35th Avenue, Oakland, CA

All piezometer sample results are in micrograms per liter (ug/L, parts per billion, ppb)

Sample ID #	Date	Total Petroleum Hydrocarbons (TPH)		Volatile Organic Compounds (VOC's by EPA 5030)							
		Gasoline		Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	Naphthalene	TBA	
PZ-1A	2/7/2018	No Sample Collected - No water in Piezometer									
	2/8/2018	No Sample Collected - No water in Piezometer									
PZ-1B	2/7/2018	56,600		26,000	250	2,400	4,980	380	250	1,000	
	2/8/2018	58,200		20,000	220	2,400	4,870	360	420	1,500	
PZ-2A	2/7/2018	< 50		1.5	< 0.5	< 0.5	< 1.5	< 0.5	< 2.0	< 10.0	
	2/8/2018	< 50		< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 2.0	< 10.0	
PZ-2B	2/7/2018	< 50		<b>0.77</b>	< 0.5	< 0.5	< 1.5	< 0.5	< 2.0	<b>19</b>	
	2/8/2018	< 50		< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 2.0	< 10.0	
<b>Practical Quantitation Limit</b>		50		0.5	0.5	0.5	1.5	0.5	2	10	

**Notes:**

MTBE = Methyl-tert-Butyl-Ether

TBA = tert-Butanol

**BOLD =** Constituent detected

Samples from February 7, 2018 were collected from the purge volume (approximately one piezometer volume was all that could be purged before the piezometers de-watered)

Samples from February 8, 2018 were collected from the limited volume of water that returned the piezometer in the 24 hours following purging (significantly less than 80% of the original volume)





# GEOLOGIC LOG

## Piezometer

JOB NO.: 2X103.G      DATE: July 28, 2017  
 CLIENT: Golden Empire Properties  
 LOCATION: 3033 35th Avenue, Oakland, CA  
 LOGGED BY: J. Chaney, PG #8452  
 DRILLER: Environmental Control Associates (Jeff Edmond)  
 DRILL METHOD: Hydraulic Driven Dual Wall Probes

Well #  
**PZ-1A**  
 Sheet  
 1 of 1

Depth (feet)	Sample Interval	Blow Counts	PID Reading (ppm)	Coring Information, Groundwater Zones, & Well Construction Details	Groundwater Depth	Piezometer Construction: 2.25" borehole 3/4" casing	Lithologic Pattern	USCS symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0								SM	<b>Silty SAND</b> , dark brown (10YR 3/3), dry, appears medium dense, 60-70% fine to medium sand, 20-30% silt fines, no odor, no discoloration. Gradational contact.
1				Borehole diameter from ground surface to 5 feet = 6-inches				SC	<b>Clayey SAND</b> , dark yellowish brown (10YR 4/6), dry to damp, appears medium dense, slightly plastic, 60-70% fine to medium sand, trace coarse sand, trace localized fine gravel, 30-40% clay fines, no odor, no discoloration.
2									- Gradational contact.
3									
4			0					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, trace odor, no apparent discoloration.
5									
6				Portland Cement 0.5' to 8.5' bgs					
7			0.3						- Gradational contact
8				Hydrated Bentonite 6.5 to 8.5' bgs					
9								SC	<b>Sandy CLAY w/ Gravel</b> , dark yellowish brown (10YR 4/4), dry to slightly damp, very stiff to hard, dominantly clay fines, 25-30% fine to medium sand, some coarse sand, 10-15% fine subangular to subrounded gravels, low hydrocarbon odor, no apparent discoloration.
10				#3 RMC Sand 8.5' to 12.5' bgs					- Gradational contact.
11			654						
12			4000	Pre-Pack 0.010-inch Screen 9.5' to 12.5' bgs				SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, strong hydrocarbon odor, no apparent discoloration.
13									
14									
15									
16									
17									
18									
19									
20									

*No PH*



# GEOLOGIC LOG

## Piezometer

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 LOGGED BY: J. Chaney, PG #8452  
 DRILLER: Environmental Control Associates (Jeff Edmond)  
 DRILL METHOD: Hydraulic Driven Dual Wall Probes

Well #  
**PZ-1B**  
 Sheet  
 1 of 1

Depth (feet)	Sample Interval	Blow Counts	PID Reading (ppm)	Coring Information, Groundwater Zones, & Well Construction Details	Groundwater Depth	Piezometer Construction 2.25" borehole 3/4" Casing	Lithologic Pattern	USCS symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0								SM	<b>Silty SAND</b> , dark brown (10YR 3/3), dry, appears medium dense, 60-70% fine to medium sand, 20-30% silt fines, no odor, no discoloration. Gradational contact.
1				Borehole diameter from ground surface to 5 feet = 6-inches				SC	<b>Clayey SAND</b> , dark yellowish brown (10YR 4/6), dry to damp, appears medium dense, slightly plastic, 60-70% fine to medium sand, trace coarse sand, trace localized fine gravel, 30-40% clay fines, no odor, no discoloration.
2									- Gradational contact.
3									
4			0					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, trace odor, no apparent discoloration.
5									
6				Portland Cement 0.5' to 14' bgs					
7			0						
8									
9									- Gradational contact
10			143					SC	<b>Sandy CLAY w/ Gravel</b> , dark yellowish brown (10YR 4/4), dry to slightly damp, very stiff to hard, dominantly clay fines, 25-30% fine to medium sand, some coarse sand, 10-15% fine subangular to subrounded gravels, moderate to strong hydrocarbon odor, no apparent discoloration.
11									- Gradational contact.
12									
13			1870					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, strong hydrocarbon odor, no apparent discoloration.
14			4000						- Gradational contact.
15				Hydrated Bentonite 14 to 16' bgs				SC	<b>Sandy CLAY</b> , dark yellowish brown (10YR 4/4), moist, very stiff to hard, dominantly clay fines, 30-40% fine to medium sand, trace coarse sand, trace fine subrounded gravels, strong hydrocarbon odor, no discoloration. Gradational contact.
16			4000						
17				#3 RMC Sand 16' to 20' bgs				SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, strong hydrocarbon odor, no apparent discoloration.
18			4000	Pre-Pack 0.010-inch Screen 17' to 20' bgs					- Gradational contact.
19								SC	<b>Sandy CLAY</b> , dark yellowish brown (10YR 4/4), damp, very stiff to hard, dominantly clay fines, 30-40% fine to medium sand, trace coarse sand, trace fine subrounded gravels, moderate to strong hydrocarbon odor, no discoloration.
20			712						



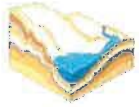
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## Piezometer

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 DRILLER: Environmental Control Associates (Jeff Edmond)  
 DRILL METHOD: Hydraulic Driven Dual Wall Probes

Well #  
**PZ-2A**  
 Sheet  
 1 of 1

Depth (feet)	Sample Interval	Blow Counts	PID Reading (ppm)	Coring Information, Groundwater Zones, & Well Construction Details	Groundwater Depth	Piezometer Casing borehole 2.25" borehole 3/4" casing	Lithologic Pattern	USCS symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
0									<b>Concrete driveway (~4 inches thick)</b>
1				<i>Borehole diameter from ground surface to 5 feet = 6-inches</i>				SM	<b>Silty SAND</b> , dark brown (10YR 3/3), dry to damp, appears medium dense, 60-70% fine to medium sand, 20-30% silt fines, no odor, no discoloration. Gradational contact.
2								SC	<b>Clayey SAND</b> , dark yellowish brown (10YR 4/6), damp to moist, appears medium dense, slightly plastic, 60-70% fine to medium sand, trace coarse sand, trace localized fine gravel, 30-40% clay fines, no odor, no discoloration.
3									- Gradational contact.
4			0					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to slightly damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, trace odor, no apparent discoloration.
5									
6				Portland Cement 0.5' to 8.5' bgs					
7			0						
8				Hydrated Bentonite 6.5 to 8.5' bgs					
9			0						
10				#3 RMC Sand 8.5' to 12.5' bgs					
11			0						
12			0	Pre-Pack 0.010-inch Screen 9.5' to 12.5' bgs					
13									
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Well #  
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Depth (feet)	Sample Interval	Blow Counts	PID Reading (ppm)	Coring Information, Groundwater Zones, & Well Construction Details	Groundwater Depth	Piezometer Construction 2.25" borehole 3/4" Casing	Lithologic Pattern	USCS symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)
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2								SC	<b>Clayey SAND</b> , dark yellowish brown (10YR 4/6), damp to moist, appears medium dense, slightly plastic, 60-70% fine to medium sand, trace coarse sand, trace localized fine gravel, 30-40% clay fines, no odor, no discoloration. - Gradational contact.
3									
4			0					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to slightly damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, trace odor, no apparent discoloration.
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6				Portland Cement 0.5' to 14' bgs					
7			0						
8									
9									
10			0						- Gradational contact
11								SC	<b>Sandy CLAY w/ Gravel</b> , dark yellowish brown (10YR 4/4), dry to slightly damp, very stiff to hard, dominantly clay fines, 25-30% fine to medium sand, some coarse sand, 10-15% fine subangular to subrounded gravels, no odor, no discoloration. Gradational contact.
12									
13			0					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, no odor, no discoloration. - Gradational contact.
14									
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16			0						
17				#3 RMC Sand 16' to 20' bgs					
18			0					SW-SM	<b>Well Graded SAND w/ Silt/Clay &amp; Gravel</b> , dominantly olive brown (2.5Y 4/4), dry to damp, appears medium dense, 40-50% fine to medium sand, up to 10% coarse sand, 20-25% fine to medium subangular gravels, 15-20% clay/silt fines, no odor, no discoloration. - Gradational contact.
19				Pre-Pack 0.010-inch Screen 17' to 20' bgs					
20			0					SC	<b>Sandy CLAY</b> , dark yellowish brown (10YR 4/4), damp, very stiff to hard, dominantly clay fines, 30-40% fine to medium sand, trace coarse sand, trace fine subrounded gravels, moderate to strong hydrocarbon odor, no discoloration.