Keith Nowell, P.G., C.HG Alameda County Environmental Health (ACEH) 1131 Harbor Bay Parkway Alameda, California 94502

Subject: TRANSMITTAL LETTER & CERTIFICATION STATEMENT

Location: Former Exxon Station, 3055 35th Avenue, Oakland

ACEH LOP#: RO-0000271; GeoTracker #: T0600100538;

As the legally authorized representative for the responsible party, I certify the following statement to satisfy regulatory requirements for technical report submittals:

I declare, under penalty of perjury, that the information and/or recommendations contained in the aforementioned report, prepared on my behalf by WEBER, HAYES AND
 ASSOCIATES, are true and correct to the best of my knowledge.

Sincerely,

Thingle Lynn Worthington

c: Golden Empire Properties, Inc. 5942 MacArthur Blvd # B Oakland. California 94605-1698



Weber, Hayes & Associates

Hydrogeology and Environmental Engineering 120 Westgate Drive, Watsonville, CA 95076 (831) 722-3580 // www.weber-hayes.com

September 8, 2017

Keith Nowell, PG, CHG Alameda County Department of Environmental Health Local Oversight Program (LOP) for Hazardous Materials Releases 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject: Investigation for Shallow Groundwater

Site: Former Exxon, 3055 35th Avenue, Oakland, CA, Fuel Leak Case RO0000271 GeoTracker Global ID T0600100538

Dear Mr. Nowell:

This report describes the installation and sampling of four (4) piezometers to investigate shallow groundwater at the Former Exxon, 3055 35th Avenue, Oakland, California (the Site, Figure 1). This investigation was completed in accordance with our *Work Plan Addendum* dated June 27, 2017¹ and e-mail modification on July 5, 2017.² The *Work Plan Addendum* and modification were approved by Alameda County Department of Environmental Health (ACDEH) on July 10, 2017. The investigation was conducted in response to the directive issued during the *Underground Storage Tank Expedited Claim Account Pilot Project Joint Execution Team (JET) Meeting* on June 1, 2017.³ The work and results of this investigation complement our *Work Plan for Additional Site Investigation*,⁴ which was approved by ACDEH on March 7, 2017.

Background information regarding the release, previous investigations, and clean-up can be found in the *Work Plan for Additional Site Investigation*.

¹ Weber, Hayes, and Associates, Work Plan Addendum, June 28, 2017

² Weber, Hayes, and Associates, Proposal to Modify the Work Plan Addendum, July 5, 2017.

³ Underground Storage Tank Expedited Claim Account Pilot Project (ECAP) Joint Execution Team (JET) Meeting Agenda with Notes, UST Claim #1275, Exxon, 3055 35th Ave, Alameda County, June 1, 2017

⁴ Weber, Hayes, and Associates, Work Plan for Additional Site Investigation, December 16, 2016

Weber, Hayes and Associates field staff initially mobilized to the site on July 28, 2017 to oversee the installation of two (2) shallow piezometers (screened from 9.5 feet to 12.5 feet below ground surface) and two (2) intermediate piezometers (screened from 17 feet to 20 feet below ground surface). Piezometer locations (see Figure 2) and construction were chosen based upon the lithology observed in boring DP-13 and the proximity to monitoring well MW-3, which has the highest concentration of hydrocarbons at the site. Field inspections of the piezometers followed on August 18, August 31, and September 1, 2017 to measure the depth to water and attempt to develop the piezometers and collect groundwater samples from them.

Results of the investigation indicate:

- Shallow screened piezometers PZ-1A and PZ-2A are dry (screened 9 to 12 feet below ground surface [bgs])
- Though some water came into the intermediate screened piezometers PZ-1B and PZ-2B, there is not a viable water bearing zone at 17 to 20 feet bgs at the site

1.0 Field Work

Field work activities related to the groundwater investigation included:

- Obtained drilling permits from Alameda County Department of Public Works (Approved Application ID Numbers: 1499719891941 & 1499721738234) and notifying regulatory staff before commencing field work
- July 28, 2017: Installing a total of four (4) ¾-inch diameter piezometers with a California C-57 Licensed drilling contractor, Environmental Control Associates (License #: 695970), drilling under our supervision. Two (2) piezometers were installed to a depth of approximately 12.5 feet bgs (PZ-1A & PZ-2A) and two (2) piezometers were installed to a depth of approximately 20 feet bgs (PZ-1B & PZ-2B), using a Geoprobe[®] hydraulic driven direct-push drill rig. Piezometer installation was in accordance with our standard field

2

methodologies, which are presented in Appendix A. Each piezometer was constructed using a pre-packed 3-foot long screened section at its' base:

- PZ-1A & PZ-2A: Shallow Screened approximately 9.5 to 12.5 feet bgs with 9.5 feet of blank casing to the ground surface.
- PZ-1B & PZ-2B: Screened from approximately 17 to 20 feet bgs with 17 feet of blank casing to the ground surface.

The piezometers were completed with flush-mounted vaults at the ground surface. Geologic logs of the piezometers are presented in Appendix B. The locations of the piezometers are shown on Figure 2 – PZ-1A and B are upgradient of well MW-3 and PZ-2A and B are downgradient of the site at 3033 35th Avenue.

As discussed in the June 1, 2017 JET phone meeting, the design of the piezometers was based on the lithology observed in direct-push soil boring DP-13, which was drilled upgradient of well MW-3 in April 2017, and the proximity to MW-3, which has the highest concentration of hydrocarbons at the site. The Geologic Log of Boring DP-13 is also presented in Appendix B.

- August 18, 2017: Weber Hayes field staff returned to the site after at least forty-eight hours had elapsed following piezometer construction (to allow the seal to set) to examine the piezometers for water presence and attempt to develop the piezometers and collect groundwater samples. Due to dewatering after removing approximately one casing and filter pack volume of water, the piezometers could not be properly developed or sampled. Depth to water measurements were recorded at each monitoring and remediation well at the site. Results are presented in section 2.0.
- August 31 and September 1, 2017: Weber Hayes field staff returned to the site to inspect the piezometers, measure the depth to groundwater, and attempt to develop and collect samples from the piezometers. As in the previous field event, the water

3

levels in the piezometers did not return to 80% of the initial height following purging, even after 24-hours had elaspsed.

2.0 Results and Observations

The following results and observations were recorded during field operations:

- All four of the Piezometers were dry after installation on July 28, 2017
- Shallow screened Piezometers PZ-1A and PZ-2A (9.5 to 12.5 feet bgs) were dry upon inspection on August 18, August 31, and September 1, 2017
- Intermediate screened piezometers PZ-1B and PZ-2B (17 to 20 feet bgs) contained approximately 2.5-3 feet of water on August 18 and August 31, 2017. On both occasions, these piezometers dewatered after an initial purge of approximately one casing and filter pack volume of water was removed.
- Comparing water levels in PZ-1B and 2B on August 31 and September 1, 2017 (24-hours after dewatering) indicated that the waters levels *did not* return to 80% of the initial water height within 24 hours (see the Table below):
 - PZ-1B recovered to 34 % of its' initial water level (18.65 feet bgs vs. 16.90 feet bgs)
 - PZ-2B recovered to 36 % of its' initial water level (18.61 feet bgs vs. 16.54 feet bgs)
- Depth to water measurements at nearby monitoring and remediation wells during these field investigations are summarized in the Table below:

MW-1 8 MW-2 8 MW-3 8 MW-4 8 MW-5 8 MW-6 8 RW-5 8 RW-6 8	Date Sampled 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	Depth to Water (ft. bgs) 15.01* 14.78* 15.09 15.35 15.93 15.64 14.76 14.27 14.40 14.93 16.32	Screened Interval (ft. bgs) 10 - 25 10 - 25 10 - 25 20 - 30 20 - 30 20 - 30 5 - 25.7 5 - 25.5 5 - 29.5
MW-1 8 MW-2 8 MW-3 8 MW-4 8 MW-5 8 MW-6 8 RW-5 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	15.01* 14.78* 15.09 15.35 15.93 15.64 14.76 14.27 14.40 14.93	10 - 25 10 - 25 10 - 25 10 - 30 20 - 30 20 - 30 5 - 25.7 5 - 25.5
MW-2 8 MW-3 8 MW-4 8 MW-5 8 MW-6 8 RW-5 8 RW-6 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	14.78* 15.09 15.35 15.93 15.64 14.76 14.27 14.40 14.93	10 - 25 10 - 25 10 - 30 20 - 30 20 - 30 5 - 25.7 5 - 25.5
MW-3 8 MW-4 8 MW-5 8 MW-6 8 RW-5 8 RW-6 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	15.09 15.35 15.93 15.64 14.76 14.27 14.40 14.93	10 - 25 10 - 30 20 - 30 20 - 30 5 - 25.7 5 - 25.5
MW-3 8 MW-4 8 MW-5 8 MW-6 8 RW-5 8 RW-6	3/31/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	15.35 15.93 15.64 14.76 14.27 14.40 14.93	10 - 30 20 - 30 20 - 30 5 - 25.7 5 - 25.5
8 MW-4 8 MW-5 8 MW-6 8 RW-5 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	15.93 15.64 14.76 14.27 14.40 14.93	10 - 30 20 - 30 20 - 30 5 - 25.7 5 - 25.5
MW-5 8 MW-6 8 RW-5 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	15.64 14.76 14.27 14.40 14.93	20 - 30 20 - 30 5 - 25.7 5 - 25.5
MW-6 8 RW-5 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017 3/18/2017	14.76 14.27 14.40 14.93	20 - 30 5 - 25.7 5 - 25.5
RW-5 8 RW-6 8	3/18/2017 3/18/2017 3/18/2017 3/18/2017	14.27 14.40 14.93	5 - 25.7 5 - 25.5
RW-6 8	3/18/2017 3/18/2017 3/18/2017	14.40 14.93	5 - 25.5
	3/18/2017 3/18/2017	14.93	1
RW-7 8	8/18/2017		5 - 29.5
		16 32	1
RW-8 8	140/2047	10.32	5 - 29.5
RW-9 8	3/18/2017	16.01	5 - 25
RW-10 8	3/18/2017	14.99	5 - 25
RW-11 8	3/18/2017	14.93	5 - 25
RW-12 8	3/18/2017	14.39	5 - 27
RW-13 8	3/18/2017	15.41	5 - 25
RW-14 8	3/18/2017	15.06	5 - 25
8	8/18/2017	Dry	
PZ-1A 8	3/31/2017	Dry	9.5 - 12.5
9	9/1/2017	Dry	
8	3/18/2017	17.57	
PZ-1B 8	3/31/2017	16.90	17 - 20
	9/1/2017	18.65	
8	3/18/2017	Dry	
PZ-2A 8	3/31/2017	Dry	9.5 - 12.5
	9/1/2017	Dry	
	3/18/2017	16.97	
	3/31/2017	16.54	17 - 20
	9/1/2017	18.61	
Note:			

Depth to water is approximate based on well construction with monument surface completion

*=

3.0 Conclusions and Recommedations

The shallow screened piezometers were dry on the date of construction (July 28, 2017) and during subsequent filed inspections on August 18 and 31 and September 1, 2017. There was no evidence of groundwater to a depth of 12.5 feet bgs at the site during this investigation. Multiple lines of evidence indicate that **the intermediate zone between 17 feet and 20 feet bgs is not a viable water bearing zone**:

- In site monitoring wells, which are all screened to *at least* twenty-five (25) feet bgs, stabilized groundwater was observed at depths ranging from 14.27 feet bgs to 16.32 feet bgs. In intermediate screened piezometers PZ-1B and 2B, which do not penetrate the confining clay layer found at approximately 20 feet bgs, stabilized groundwater was observed at depths ranging from 16.54 to 17.57 feet bgs.
- 2) The intermediate zone piezometers contained approximately 2.5-3 feet of water upon initial inspection after sitting undisturbed for several weeks. These piezometers could not be properly developed or sampled because they dewatered after purging approximately one casing and filter pack volume of water. Water levels in these piezometers did not recover to 80% of the initial "stabilized" water level within 24-hours as described in the LUFT Manual – they only recovered to approximately 35 % of the initial water level.

The poor correlation between the depth-to-groundwater observed in the intermediate screened piezometers and the monitoring and remediation wells at the site and the slow recharge rate of the intermediate screened piezometers indicate that the intermediate screened piezometers are not screened in a viable water bearing zone.

The water observed in piezometers PZ-1B and 2B may be either percolating groundwater, or more likely is due to leakage from nearby monitoring and remediation wells that allow water to rise through the confining clay later and escape into the permeable formation at these depths. This leaking groundwater may be transporting residual hydrocarbons downgradient of the site.

6

We recommend that the monitoring and remediation wells be properly destroyed to eliminate this source of hydrocarbon contaminant transport.

A discussion of this work will be incorporated into the *Technical Report of Additional Site Investigation / Feasibility Study / Corrective Action Plan* required by ACDEH and due by September 29, 2017.

4.0 Limitations

Our service consists of professional opinions and recommendations made in accordance with generally accepted engineering and geologic principles and practices. This warranty is in lieu of all others, either expressed or implied. The analysis and conclusions in this report are based on sampling and testing which are necessarily limited. Additional data from future work may lead to modifications of the opinions expressed herein. All work was conducted under the direct supervision of a Professional Engineer and/or Geologist, registered in the state of California, and experienced in environmental assessment and remediation.

If you have any questions or comments regarding this *Investigation for Shallow Groundwater* please contact us at our offices at 831-722-3580, or by electronic mail at <u>craig@weber-hayes.com</u>.

Sincerely yours,

WEBER, HAYES AND ASSOCIATES

A California Corporation

Hum Ag

Harrison Hucks Staff Scientist

5. Min

And:

By:

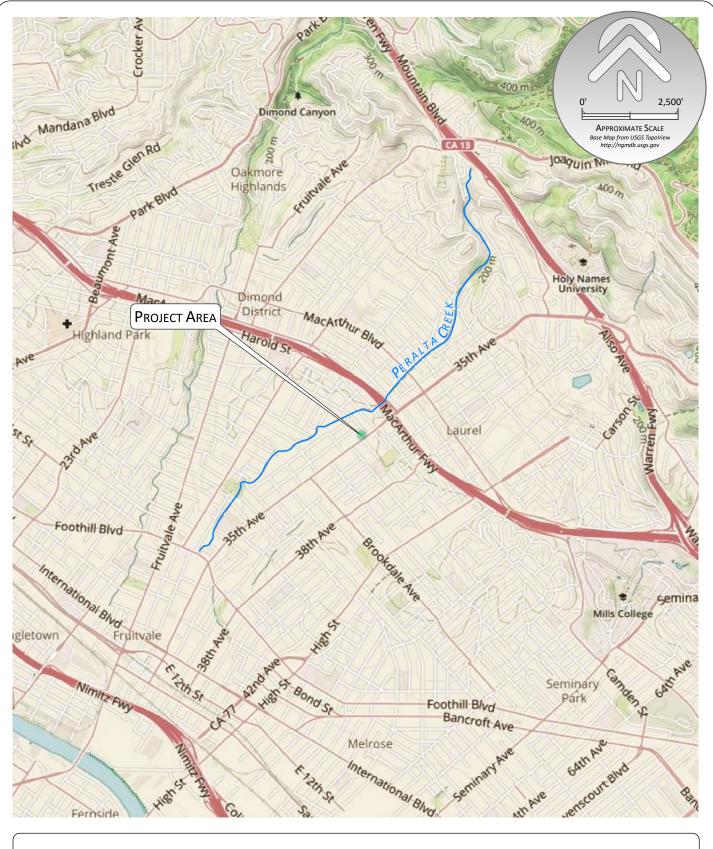
Craig B. Drizin Senior Engineer

Attachments:

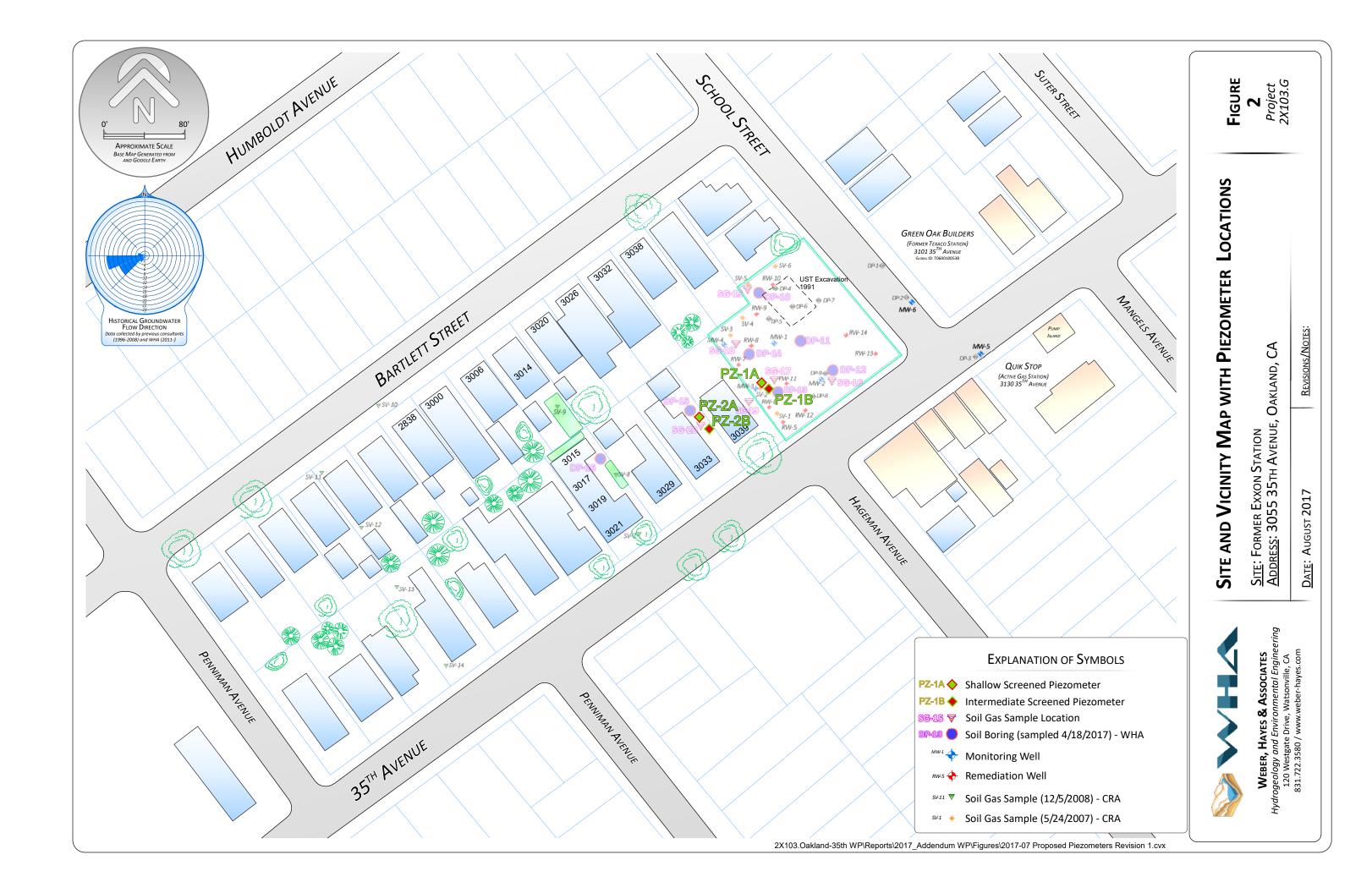
- Figure 1: Location Map
- Figure 2: Site and Vicinity Map with Piezometer Locations
- Appendix A: Field Methodologies
- Appendix B: Field Documentation Field Notes and Geologic Logs



FIGURES



Se wha	LOCATION MAI	P	FIGURE
WEBER, HAYES & ASSOCIATES Hydrogeology and Environmental Engineering	SITE: FORMER EXXON STATION Address: 3055 35th Avenu	L Project 2X103.C	
120 Westgate Drive, Watsonville, CA 831.722.3580 / www.weber-hayes.com	DATE: SEPTEMBER 2015	REVISIONS/NOTES: 08/26/2015 - JA	



APPENDIX A

Field Methodologies

APPENDIX B: Field Methodology for Hydraulic Driven Probes Using Macro-Core[®], Large Bore[®] or Dual Tube[®] Hydraulic Driven Probes

Direct push exploratory borings are "drilled" with a Hydraulic Driven Probe drill rig, which hydraulically

vibrates and drives a steel sample probe and rods into the soil. This sampling technology has the ability for either continuous or discrete sampling using a 4-foot long nickelplated sampling probe fitted with clear acetate liners. For continuous cores, the sampler remains open as it is driven into undisturbed soil over its entire 4-foot sampling interval.

The soil cores are retrieved and logged by an experienced geologist using the Unified Soil Classification System (USCS), noting, the lithology of the soils, moisture content, and any unusual odor or discoloration. Relatively undisturbed soil samples are obtained for both lithologic

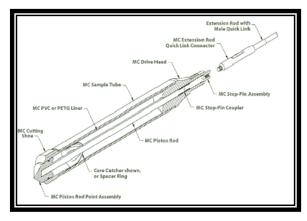
logging and laboratory analysis. A portion of each individual soil core is stored in a sealed plastic bag for field screening of hydrocarbons and/or volatile organic compounds by a Photoionization Detector (PID). Vapor readings in parts per million (ppm) are recorded on the boring logs. The PID is also used during drilling for monitoring the work area for site safety.

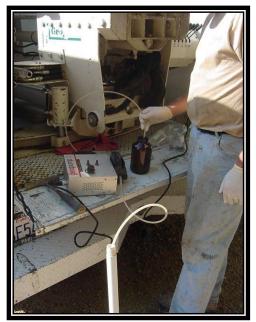
All drilling equipment is decontaminated prior to arriving on-site to prevent possible transfer of contamination from another site. The sampling probe, rods, and all other soil sampling equipment are thoroughly cleaned between each borehole by washing in a Liqui-Nox or Alconox solution followed by double rinsing with distilled water to prevent the cross-contamination.

After drilling, the direct push boreholes are grouted with continuous pour neat cement grout from the bottom of the borehole to the ground surface, or completed as shallow screened piezometers.

Samples Targeted for Laboratory Analysis:

Soil samples targeted for laboratory analysis are immediately cut from the acetate sample liner and protected at both ends with Teflon tape, sealed with non-reactive caps, taped, labeled, placed in a





plastic Ziploc baggie, and immediately stored in an insulated container chilled to a temperature of 4 degree Celsius.

Groundwater samples are collected after temporary PVC casing is placed in the hole and at least one borehole volume is purged and groundwater is visually observed to be free of sediment. Groundwater samples are either: 1) collected with a peristaltic pump and dedicated polyethylene tubing and dispensed directly into containers specifically prepared for the analyses (groundwater encountered at depths of less than 27 feet bgs) or 2) collected by mechanically lifting groundwater through a clean stainless steel foot valve and dedicated polyethylene and dispensed directly into containers specifically prepared for the analyses (groundwater through a clean stainless steel foot valve and dedicated polyethylene and dispensed directly into containers specifically prepared for the analyses (groundwater encountered at depths greater than 27 feet bgs where a peristaltic pump cannot be used). Samples being analyzed for dissolved metals will be preserved and acidified by the testing laboratory following their receipt of samples. Once collected, groundwater sample containers are placed in Ziploc bags and are stored in an insulated container chilled to a temperature of 4 degree Celsius.

All samples are transported in chilled coolers to a State-certified laboratory under appropriate chain-ofcustody documents. Soil samples that may be put on "hold" for potential future analysis will be stored in a dedicated sample freezer, be frozen, and stored under chain-of-custody documentation. Hold times will be confirmed with the testing laboratory to ensure that potential analysis of any "hold" samples will be analyzed within the laboratory hold times.

FIELD METHODOLOGY FOR INSTALLING SHALLOW PIEZOMETERS

Soil borings for piezometer installation will be drilled by a California C-57 licensed well drilling contractor using hydraulic direct push technology (see above). The borings will initially be continuously-cored to the target depth using hydraulic driven probes in accordance with our standard field methodology. The target depth for the bottom of the piezometers at this site is 12 feet below ground surface (bgs).

Extracted soil cores will be logged by an experienced field geologist using the Unified Soil Classification System. A Photoionization Detector (PID), calibrated for benzene, will be used to field-screen the extracted soil cores for potential volatile organic vapors. Lithologic observations and PID readings will be recorded on the boring log.

Following soil coring to approximately 12.5 feet bgs, a pre-packed piezometer consisting of a ³/₄-inch diameter Schedule 40 Polyvinyl Chloride (Sch 40 PVC) inner casing with 5 feet of 0.010-inch width slots at the base surrounded by #3 sand in a nominal 2-inch diameter stainless steel mesh, with approximately 7 feet of blank Sch 40 PVC casing above, will be constructed in the boring either by:

A. Removing the drill rods and installing the pre-pack piezometer in the open borehole (if the hole stays open), or

B. Installing the pre-pack piezometer through the GeoProbe[®] Rods using an expendable anchor point

In either case, the piezometer will be completed by placing #2/12 sand in the annulus around the prepack screen from the base of the borehole at 12 feet bgs to approximately 5 feet bgs (2-feet above the screen section), placing and hydrating a 1-foot thick bentonite seal above the sand, and placing a cement grout sanitary seal above the bentonite seal (from approximately 4-feet bgs to the base of the piezometer vault. A 4- or 8-inch diameter bolt-down, flush mounted vault will be set at the ground surface above the piezometer. The ¾-inch diameter inner casing will be sealed with a locking cap inside the vault. A piezometer construction diagram is shown in the attached Figure.

After a minimum of 48-hours has elapsed following piezometer installation, the piezometers will be developed to remove suspended materials and assist in establishing good hydraulic conductivity with the surrounding formation (if water is present). Piezometer development will consist of removing up to 10 saturated volumes with a peristaltic pump. During development, the physical parameters of temperature, conductivity, pH, dissolved oxygen concentration, and Oxidation-Reduction Potential of the development water will be monitored with a calibrated, QED MP20 Micropurge flow-through cell and meter to ensure that these parameters have stabilized (are within approximately 10 percent of the previous measurement). Development will be complete (stabilized groundwater conditions reached) after the removal of approximately ten piezometer volumes of water, when groundwater turbidity is observed to be low or absent, and/or when the physical parameters have stabilized.

When development is complete, groundwater samples will be collected according to our standard Field Methodology for Groundwater Monitoring at this site, which is described below.

Field Methodology for Groundwater Monitoring

Weber, Hayes and Associates' groundwater monitoring field methodology at this site is based on procedures specified in the LUFT Field Manual and US EPA Groundwater Sampling Procedure - Low Stress (Low Flow) Purging and Sampling. The first step in groundwater monitoring is for Weber, Hayes and Associates field personnel to measure the depth-to-groundwater to the nearest hundredth (0.01) of a foot with an electric sounder. If the well appears to be pressurized, or the groundwater level is fluctuating, measurements are made until the groundwater levels stabilize, and a final depth-to groundwater measurement is taken and recorded. After the depth-to-groundwater is measured, the piezometer or well is then checked for the presence of free product with a clear, disposable polyethylene bailer. If free product is present, the thickness of the layer is recorded, and the product is bailed to a sheen. All field data (depth-to-groundwater, well purge volume, physical parameters, and sampling method) is recorded on field data sheets. Because removing free product may skew the data, wells that contain free product are not used in groundwater elevation and gradient calculations.

A-3

After measuring the depth-to-groundwater, each piezometer or well is purged with a low flow peristaltic pump and dedicated sample tubing at a rate of less than 500 mL/min. The sample tubing intake is positioned at the center of the water column within the screened portion of the well. During purging, the water level in the well is monitored to maintain a drawdown of 0.33 feet or less if possible. The flow rate is adjusted to maintain minimal drawdown. During purging the physical parameters of temperature, conductivity, pH, dissolved oxygen (D.O.) concentration, and Oxidation-Reduction Potential (ORP) of the purge water are monitored with a QED MP20 Micropurge Flow Through Cell equipped meter to insure these parameters have stabilized (i.e. +/- 0.1 for pH, +/- 3% for specific conductance, +/- 10 mV for redox potential, and +/- 10% for D.O.). The QED MP20 meter is capable of continuously monitoring the physical parameters of the purge water via the flow through cell and providing an alarm to indicate when the physical parameters have stabilized to the user's specifications. Purging is determined to be complete (stabilized aquifer conditions reached) after the removal of approximately three to five piezometer or well volumes of water, or when the physical parameters have stabilized. Samples will be collected immediately after development if physical parameters have Dissolved oxygen and ORP measurements may be used as an indicator of intrinsic stabilized. bioremediation within the contaminant plume. All field instruments are calibrated before use.

All purge water is stored on site in DOT-approved, 55-gallon drums for disposal by a state-licensed contractor pending laboratory analysis for fuel hydrocarbons.

After purging, and when groundwater parameters have stabilized, a groundwater sample is collected from each piezometer or well with dedicated sample tubing, and decanted into the appropriate laboratory-supplied sample container(s). The sample containers for the piezometers will be three (3) 40-milliliter VOA vials. Vials are filled until a convex meniscus formed above the vial rim, then sealed with a Teflon[®]-septum cap, and inverted to insure there are no air bubbles or headspace in the vial. All samples will be labeled in the field and transported in insulated containers cooled with blue ice to a State-certified laboratory under proper chain of custody procedures.

All field and sampling equipment will be decontaminated before, between, and after measurements or sampling by washing in a Liqui-Nox and tap water solution, rinsing with tap water, and rinsing with distilled water.

APPENDIX B

Field Documentation – Field Notes and Geologic Logs



Weber, Hayes & Associates Hydrogeology and Environmental Engineering 120 Westgate Dr., Watsonville, CA 95076 PH: (831) 722-3580 FAX: (831) 722-1159 www.weber-hayes.com

Text Page) / 3 INDICATE ATTACHMENTS THAT APPLY ______ Site Map Data Sheets Geologic Logs Photo Sheets

COC's Chargeable Materials

Client: Golde	en Empire Proper	ties		Date:	July 28, 2017	
Site Location:	3055 35th Aven	ue, Oakland, CA		Study #:	2X103.G	
Field Tasks:	Drilling	Sampling	Other (see below):	Weather C	conditions:	
Piezometer Ins	tallations			Foggy	+ Cool	
Personnel / Con	npany On-Site:	Jered Chaney (W	eber, Hayes and Associates: V	VHA)		

TIME:	
0710	=> Arrive onsite. - ECA (Jeff Edmond) ansite ; Prep for drilling and piezonatur installations.
	- ECA (Jeff Edward) assite : Prep for drilling and piezonetur
	installations.
0730	· Romero Concrete onsite - Prep to core 10" diameter cores in
	concrete drive way at 3033
0745	- Prove have concert to a scale Concert
- 49 5	=> Romero bagins coring concrete to remove SG-20 vault.
	Le Will reinstall - Coastwide utility locators onsite to clear P2-24 and -28 Proposed locations prior to drilling.
	Proposed locations prior to drilling
080	~ Comprence continuous core at PZ-1B (to 20' bys).
	- Macro Com to 41; Dual vall to 200
	 Complence continuous core at PZ-IB (to 20' bys). Macro Cone to 4'; Dual vall to 20' See log and well construction diagram for dutails
	v
0815	=> PZ-2A and -2B clear of underground ut-1.tes
	- Romero cores those locations.
0830	=> Baca ant to El de l'art lation of C" franche
0 600	=> Bore out top 5' at each pico. location w/ 6" diameter solid flight augues for well seal.
	solid filling of solid seals
0900	=> PZ-1B cored to 20' bys. Insert Prepack Well through 2.25" rods (expendable tip Knocked out). Retract rods V and construct annulus. Screened inturnal from 17-20' bys - See geologic log and well construction diagram for details.
	rods (expendably tip Knocked out). Retract rods I and
	1 construct annulus. Screned intural from 17-20-615
	- See geologie log and well construction diagram for details.
	Lo Moderate to high hydrocarbon odor below ~ 9.5' bys; persists
	to 20.
0920	$= P_{2} - I_{R} + (A - c_{1})$
0120	=> PZ-18 installation complete - Will wait for growt inspector (ACPW) Be to witness next coment Seal
	pr 10 withes) heat central sect
	- Begin coving and construction PZ-1A to 12.51
	- Begin coving and construction PZ-1A to 12.51 - pre-pack Screen from 9.5-12.5
	- See log and well construction diagram for details.
0940	=> Contact ACPW inspector Marcilino regarding destruction and reinstallation of SG-20. Will notify 1 hr prior to
	installing seal
1015	= ACPU grout in spector onsite. Will wait untill diller is ready to growt
	- Con 7/28/12
	Signature of Field Personnel & Date



Weber, Hayes & Associates Hydrogeology and Environmental Engineering 120 Westgate Dr., Watsonville, CA 95076 PH: (831) 722-3580 FAX: (831) 722-1159 <u>www.weber-hayes.com</u>

Text Page 2,3
INDICATE ATTACHMENTS THAT APPLY
Site Map
Data Sheets
Geologic Logs

Photo Sheets

COC's Chargeable Materials

Client: Golden Empire P	roperties		Date:	July 28, 2017
Site Location: 3055 35th	Avenue, Oakland, CA		Study #:	2X103.G
Field Tasks: 🗹 Drilling	Sampling	Other (see below):	Weather C	onditions:
Piezometer Installations			Mostly	Clear, fair
Personnel / Company On-Site	Jered Chaney (We	eber, Hayes and Associates: V		,

- PZ-1k installation complete. - PZ-1k installation complete. - PZ-1k installation complete. - Tay piezernetus - No Water / Dry. - Kitt Novell leaves Str. - See geologic los and well constanction diagram for details. - Tay piezernetus - No Hydrocuban odors observed. - Tay the Prezerve from 25-12.5' 651 - Wait for ACRW yroune inspector for neat court seel - installation - New to 5.5' SU-20; second thus construction as DZ-10. - Wait for ACRW yroune inspector for neat court seel - installation - Wait for SU-20; second the data of think of the second - Way out to 5.5' SU-20; second the data of the second - Way we well - identical construction as SU-20. - Wait to second the second the data of think of - Way we well - identical construction construction as SU-20. - Wait to second well - of the data of think of - Wait to second well - of the data of think of - Wait to second well - identical construction construction construct - Wait to second well - identical construction construction construct - Wait to second well great inspector schedus yr. - Commenc continuous core at PZ-28 to 20' by; then - Construct prezerve reduction of pre-18 (Pre-pack screen - from 17-20'). See geologic log and well construction diagram - Construct prezerve reduction of pre-28 to 20' by; then - Construct prezerve reduction of pre-24/8 + SG-20. - Market piezonater - Construct prezerve reduction of pre-24/8 + SG-20. - Construct prezerve reduction of sciend of sciend diagram - Construct piezonater - Are W inspector onside to withess sealing of PZ-24/8 + SG-20. - Market	- P2-14 installation complete. 35 => Install ment complete. 55 => ACPW inspector lenves still. Will petune to withest seal 55 => ACPW inspector lenves still. Will petune to withest seal 56 installation at 92-24/4 and SG-20 57 => Well baxes. 58 => Well baxes. 59 => Well baxes. 50 => Stare Fill Q P2-20 => Command corring to 12.5' - Keith Nedell lenves Site. 10 P2-2.A/B will be installed identical to P2-14/8. 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.A/B will be installed identical to P2-14/8. 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.A cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.4 Cored to 12.5' => No Hydrocerbon odors obstructed 10 P2-2.4 Cored to 12.5' => remove annulus and tobing, and 10 P2-2.2. No ACPW grounde inspector for neat compute seal 10 P2-2.2. No ACPW grounde inspector for neat compute seal 11 P2-2.2. No ACPW grounde inspector and use and tobing, and 12 P2-2.2. No ACPW grounde inspector annulus and tobing, and 13 P2-2.2. No ACPW groupe at blank data of third. 14 Use dedicated tellon tubing and compute signated 15 Soil vapor well SG-20 drill-out and reinstallation compute 15 Whit to seal untill grout inspector shows yp. 16 Commenc continuous core at P2-2.2.8 to 20' bys; Han 17 Construct prezonator iduntical to P2-2.4. (pre-pack screen 15 from 14'-2.0'). See geologic by and well contrained inform 16 det=3.5. 18 m At 20 Sys (225'' core). No hydrocarbon odors ob served 19 Construct piezometer 10 P2-2. No hydrocarbon odors ob served 10 Construct piezometer 10 C	TIME:	
 - PZ-1A installation complete. - > Trachall ment complete. > ACPU inspector lenves std. Will petited to Units seal - ACPU inspector lenves std. Will petited to Units seal - Tay presentes - No Water / Dry. - Tay presentes - No Water / Dry. - Tay presentes - No Water / Dry. - Krith Neddill lenves site. - Receptor log and well construction diagram for defails. - Tay presenter - No Hydroceton of dors obstrued - > Tachall for ACRU growth inspector for next court seal - > Tachall for ACRU growth inspector for next court seal - Alage out to 3.5' SU-ZO; second the construction as PZ-1A - Alage out to 3.5' SU-ZO; second and tubing and tubing, and - Alage out to 3.5' SU-ZO; second the data of the defailed - Alage out to 3.5' SU-ZO; second the data of t	- PZ-1k installation complete. 55 => Trated II near tomost great seals at PZ-1k + 1B 51 => ACPW inspector leaves std. Will petuen to Witcs seal 52 => ACPW inspector leaves std. Will petuen to Witcs seal 53 => Meell baxes. 54 => Tag piezemetric - No Water / Dry. 55 => Weell baxes. 55 => Weell baxes. 55 => Weell baxes. 56 => Chape ris @ PZ-2a -> Connear corring to 12.5! 57 - Ksith Nowll leaves Site. 56 => PZ-2A/B Will be institud identical to PZ-14/B. 57 - YZ-2A/B Will be institud identical to PZ-14/B. 58 geologic log and well constantion diagram for duteits. 59 - ZA/B Will be institud identical to PZ-14/B. 50 => PZ-2A correct to (2.5' -> No Hydrocuber a durg obstandel -> Tashall Piezonater - identical Constantion as PZ-1A 58 - Weilt bio ACPW growth inspector for near comment seal 59 - Weilt from 3.5' SU-20; second the for near comment seal 50 => Piezonater mentual - identical constantion and tubing, and 50 reinstell waper well - identical constantion and tubing, and 59 reinstell waper well SU-20 deillout and tubing, and 50 reinstell waper well SU-20 deillout and tubing, and 50 reinstell waper well SU-20 deillout and reinstellation compute 50 - Soil waper well SU-20 deillout and reinstellation compute - Weit to Seal and Will growt inspector shows yp. 50 - Connear configures Core at PZ-28 to 20' by: then 50 - Soil waper well SU-20 deillout and reinstellation compute - Weit to Seal and Ill growt inspector shows yp. 51 - Connear configures Core at PZ-28 to 20' by: then 52 - Connear configures core at PZ-28 to 20' by: then 53 - Connear configures core at PZ-28 to 20' by: then 54 - 20' See geologic log and well construction diagram 54 - 20' See geologic log and well construction diagram 55 - 20' by (2.25'' core). No hydrocarboa odors ob served 55 - 20' by (2.25'' core). No hydrocarboa odors ob served 54 - Arev inspector onsite to witness sealing of PZ-24/B + SC-20- 55 - Arev inspector onsite to witness sealing of PZ-24/B + SC-20- - Arev inspector onsite to witness sealing of PZ-24	1020	** Keith Nowell (ACDEH) onsite to inspect and observe.
145 => ACPU inspector leaves std. Will return to Whiss see! installation at P2-2A/8 and SG-20 Is Set Well baxes. 15 => Well baxes installed - Tag piezemute - No Water / Dry. 125 >> Stage ris @ P2-2a -> Connear coring to 12.5' - Keith Newell leaves Site. 1 • P2-2A/8 will be installed identical to P2-14/8. 1 • P2-2A/8 will be installed identical to P2-14/8. 20 => P2-2A cored to (2.5' -> No Hydrocation of ors obstruct -> Install Prozonater-identical Construction as P2-14 1 • Pre-park Server from 7.5-12.5' 691 - Weith for ACRUS growthe inspector for reat coment see! 1 ristall from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20 dillout and reinstallation compute - Wait to sent will growt inspector shows yre. 20 => Soil vapor well SU-20 dillout and reinstallation compute - Wait to sent will growt inspector shows yre. 21 • With to sent will growt inspector shows yre. 22 • Commenc confinueur core at P2-28 to 20' bys; then 23 • Commenc confinueur core at P2-28 to 20' bys; then 24 • Construct prezonater identical to p2-24/8 + S6-20. 35 • At 20' bys (2.25" core). No hydro carboa odors ob served • Construct prezonater to uithes senting of P2-24/8 + S6-20. 35 • At 20' bys (2.25" core). No hydro carboa odors ob served • Construct prezonater on set to withes senting of P2-24/8 + S6-20.	15 => ACPU inspector lenves Std. Will return to whest seal installation at 92-24/8 and SG-20 Solution at 92-24/8 and SG-20 Solution at 92-24/8 and SG-20 Solution at 92-24/8 and SG-20 - Tag piezonutus - No Water / Dry. - Tag piezonutus - No Water / Dry. - Keith Noodell lenves Site. - See geologic log and well constantion diagram for dutains -> Tastall Piezoneter-identical construction of Solutural -> Solution Naturd. - Augus out to 3:5' SU-20; persone flux cone w/ 2.85" core barrel from 3:5:85' = renove annulus and tubing, and reightell vapor well - identical construction as SO-20 - Use dedicated tellon tubing and coreanic Filter tip designated for this project (equipment black data of third) - Soil vapor well SU-20 dail-out and reightallation compute - Whit to sent untill growt inspector-slows yp. - Commence continuous core at PZ-28 to 20' bys; then Construct prezoneter identical to pZ-84 (Pre-pack Screen from 17-20') See geologic log and well contraction diagram for det=35. - Arew inspector onsite to withess senting of PZ-24/8 #SG-20- - Arew inspector onsite to withess senting of PZ-24/8 #SG-20-		- PZ-1A installation complete.
145 => ACPU inspector leaves std. Will return to Whiss see! installation at P2-2A/8 and SG-20 Is Set Well baxes. 15 => Well baxes installed - Tag piezemute - No Water / Dry. 125 >> Stage ris @ P2-2a -> Connear coring to 12.5' - Keith Newell leaves Site. 1 • P2-2A/8 will be installed identical to P2-14/8. 1 • P2-2A/8 will be installed identical to P2-14/8. 20 => P2-2A cored to (2.5' -> No Hydrocation of ors obstruct -> Install Prozonater-identical Construction as P2-14 1 • Pre-park Server from 7.5-12.5' 691 - Weith for ACRUS growthe inspector for reat coment see! 1 ristall from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20; prease that come w/ 2.85" core barrel from 3.5' SU-20 dillout and reinstallation compute - Wait to sent will growt inspector shows yre. 20 => Soil vapor well SU-20 dillout and reinstallation compute - Wait to sent will growt inspector shows yre. 21 • With to sent will growt inspector shows yre. 22 • Commenc confinueur core at P2-28 to 20' bys; then 23 • Commenc confinueur core at P2-28 to 20' bys; then 24 • Construct prezonater identical to p2-24/8 + S6-20. 35 • At 20' bys (2.25" core). No hydro carboa odors ob served • Construct prezonater to uithes senting of P2-24/8 + S6-20. 35 • At 20' bys (2.25" core). No hydro carboa odors ob served • Construct prezonater on set to withes senting of P2-24/8 + S6-20.	15 => ACPU inspector lenves Std. Will return to whest seal installation at 92-24/8 and SG-20 Solution at 92-24/8 and SG-20 Solution at 92-24/8 and SG-20 Solution at 92-24/8 and SG-20 - Tag piezonutus - No Water / Dry. - Tag piezonutus - No Water / Dry. - Keith Noodell lenves Site. - See geologic log and well constantion diagram for dutains -> Tastall Piezoneter-identical construction of Solutural -> Solution Naturd. - Augus out to 3:5' SU-20; persone flux cone w/ 2.85" core barrel from 3:5:85' = renove annulus and tubing, and reightell vapor well - identical construction as SO-20 - Use dedicated tellon tubing and coreanic Filter tip designated for this project (equipment black data of third) - Soil vapor well SU-20 dail-out and reightallation compute - Whit to sent untill growt inspector-slows yp. - Commence continuous core at PZ-28 to 20' bys; then Construct prezoneter identical to pZ-84 (Pre-pack Screen from 17-20') See geologic log and well contraction diagram for det=35. - Arew inspector onsite to withess senting of PZ-24/8 #SG-20- - Arew inspector onsite to withess senting of PZ-24/8 #SG-20-	035	=> Install heat comont great seals at PZ-14 + 1B
installation at \$2-24/8 and \$6-20 Is Set Well baxes. 115 => Well baxes installed - Tag piecemetre - No Water / Dry. 125 => Shape r: @ P2-2a -> Comman corring to 12.5' - Kaith Nowll leaves Site. I P2-2A/R will be installed identical to P2-14/8. See geologic log and well construction diagram for duterits. >> P2-2A Conditions of the Second of the Second of the Second to 12.5' - Kaith Nowll leaves Site. >> P2-2A condition construction as P2-14/8. >> See geologic log and well construction as P2-14 >> P2-2A conditions from 3.5 - 12.6' bit - Waith for ACRW growthe inspector for next comment seal -> Taskall for ACRW growthe inspector for next comment seal -> Secondar installed. - Augument to 3.5' \$6-20; pename the cont w/ 2.85'' corrected -> Paint from 3.5' \$6-20; pename the cont w/ 2.85'' corrected barrel to 3.5' \$6-20; pename the cont w/ 2.85'' corrected barrel to 3.5' \$6-20; pename the cont w/ 2.85'' corrected barrel to 5.5' and reinstallation and tubing, and -> reinstall from 3.5' \$6-20 dill-out and reinstallation compute -> Wait to Second to 15'' conditions construction as \$6-20'. >> Soil vapor well \$6'' conditions construction to second to 5'' for the second to 5''' for the second to 5''' for the second to 5'''''''''	installation at 92-24/8 and SG-20 Lo Set Well baxes. Set Well baxes installed - Tay presenting - No Water / Dry. - Tay presenting - No Water / Dry. - Tay presenting - No Water / Dry. - Keith Nowll leaves Site. - Keith South Construction as P2-14 - See geologic log and well construction as P2-14 - See geologic South States From 95125 bits - Weith for ACRW grows inspector for new comments see! - Main of the States of States for new 22.85" (one - Waith for ACRW grows inspector for new 22.85" (one - Waith for ACRW grows inspector for new 22.85" (one - Waith to States States) - identical construction as States). - Was dedicated tellant tybing and construction as States). - Was dedicated tellant tybing and construction as States). - Waith to Seal untill growt inspector shows up. - Commence continuous core at P2-28 to 20' by: Hear - Construct prezonator identical to P2-80 (pre-pick Serven - from 17-20'). See geologic log and well construction diagram - Construct prezonator identical to P2-80 (pre-pick Serven - from 17-20'). See geologic log and well construction diagram - Construct prezonator identical of p2-20 & Served - Construct prezonator identical to p2-20 & Served - Construct prezonator identical of and well construction diagram - Construct prezonator identical of a served - Constr	045	=> ACPW inspector leaves site. Will return to witness seal
Lo Ser Well baxes. 115 = r Well baxes installed - Tay preservice - No Water / Dry. 125 = Style ris @ P2-Za - Connerve corring to 12.5' - Kaith Nodell leaves Site. 1 · P2-2.A/B will be installed identical to P2-14/B. 1 · P2-2.A/B will be installed identical to P2-14/B. 1 · P2-2.A Corrid to 12.5' -> No Hydrocuben odors obsurved. -> Tastall Preservet - identical Construction as P2-14 1 · Parce galaxies from 95-12.6' bys - Weilt Proceeding from 95-12.6' bys - Weilt from 3:5.5' => remove annulus and tubing and reissful from 15-12.6' bas - Aver out to 3:5' 20 drill-out and reissfulfition compute - Whit to sent and ill great inspector shows up. - Connerce continuous core at P2-28 to 20' bys; Hun Construct prezonetic identical to P2-28 (Pre-pack Serien from 17-20'). See galagic log and well construction diagram for det-13. - Areb inspector onside to witness senting of P2-24/B + 56-20. - Areb inspector onside to witness senting of P2-24/B + 56-20.	Lo Set Well baxes. 15 Set Well baxes installed - Tag piezemutre - No Water / Dry. 15 So Shale rill & P2-2a - Commence corring to 12.5' - Keith Nowell leaves Site. 1 • P2-2A/8 will be installed identical to P2-14/8. 1 • P2-2A/8 will be installed identical to P2-14/8. 1 • P2-2A/8 will be installed identical to P2-14/8. 1 • P2-2A correct to 12.5' -> No Hydrocerbon odors observed -> Trethill Piezemutr-identical Construction as P2-14 1 • Pre-part Serven from 95-12.6' bys - Weit for ACRW growns inspector for neat comment serel 1 installation 50 =? P2-2A correct to 12.5' -> No Hydrocerbon odors observed -> Trethill Piezemutr-identical construction as P2-14 1 • Or Acrw growns inspector for neat comment serel 1 installation 50 =? Piezomutr Nathled. - Augur out to 3.5' 50-20; secance this come w/ 2.25" core 1 • Wait from 3:5.55' => remove annulus and tubing end 1 reinstell vapor well - identical construction as S0-20! • Use didicated tellon tubing and coreanic filter tip designanted 1 for this project (equipment black data of thind) 20 => Soil vapor well SC-20 drill-out and reinstallation compute - Wait to sent untill growt inspector shows yp. - Commence continuous core at P2-28 to 20' bys; then 1 for H1-20'). See geologic log and well contraction diagram 1 for detals. 10 * At 20' bys (2.25'' core). No hydrocarbon odors observed - Construct piezomater identical to P2-2A/8 * S6-20. 10 * At 20' bys (2.25'' core). No hydrocarbon odors observed - Construct piezomater - Arry inspector onside to witness serving of P2-2A/8 * S6-20.		, installation at PZ-24/8 and SG-20
115 = 2 Well baxes installed - Tag piezemetre - No Water / Dry. 125 = 2 Stage rig @ PZ-Za -> Connere corring to 12.5' - Kitth Novell lenves Sett. 1 • PZ-2.A/B will be installed identical to PZ-14/B. 1 • PZ-2.A/B will be installed identical to PZ-14/B. 1 • PZ-2.A/B will be installed identical to PZ-14/B. 1 • PZ-2.A/B will be installed identical to PZ-14/B. 20 => PZ-2.A cond to (2.5' -> No Hydroculon odors observed -> Tastall Prezonetr-identical construction as PZ-1A 1 be Pre-pack Serven from 2.5-12.5' by - Weith for ACRW ground inspector for next coment serl 1 risstall dian 230 => Piczonetr installed. - Augus out to 3.5' Sb-ZO; preserve then come w/ 2.85" core beiral from 3:5:85' => remove annulus and tubing, and reisstall unper well - identical constituction as So-20. • Use dedicated tellon tubing and commic Filter tip designated for this project (equipment black date of thind) 320 => Soil vapor well Sb-ZO drill-out and reinstallation compute - Whit to sent untill group inspector shows yp. • Commence continuous core at PZ-ZB to 20' bys; then Construct piezometer identical to PZ-ZA (Pre-pack Screen from 17-ZO'). See geologic log and well construction diation for det=15. 130 m At 10' bys (2.25'' core). No hydrocarbon odors observed • Construct piezometer - Areby inspector onside to witness senting of PZ-2A/B * S6-20.	 st well baxes installed Tag piezemitre - No Water / Dry. 25 27 Stepe ring Q P2-2a -> Connerse corring to 12.5' Keith Nowall lenves Site. P2-2.A/B will be installed identical to P2-14/B. P2-2.A/B will be installed identical to P2-14/B. See geologic log and well construction diagram for dutoins. a See geologic log and well construction as P2-14. P2-2.A / B will be installed identical to P2-14/B. See geologic log and well construction diagram for dutoins. P2-2.A / B will be installed identical to P2-14/B. See geologic log and well construction as P2-14. B Propice Server from 9.5-12.6' bys. - Waith for ACRU ground inspector for next coment serel installed tion. Piezomiter installed. Augur out to 3.5' SU-20; premove annulus and tubing, and reinstalled to a SU-20.2' core barred from 3.5: SS' => remove annulus and tubing, and reinstalled to the form the serel indention construction as SO-20. Use dedicated tellon tubing and coreanic filter tip designanted for this project (equipment blank data altrind) So => Soil unpor well SG-20 drill-out and reinstallation compute. Whit to send antical to P2-2B to 20' bys; these construct prezements identical to P2-2A (pre-pack Screen from 17-20'). See geologic log and well construction diagram for diata. A 20' bys (7.25' core). No hydro calbon odors ob served. Construct prezementer identical to p2-2A (pre-pack Screen from 17-20'). See geologic log and well construction diagram for diata. A 20' bys (7.25' core). No hydro calbon odors ob served. Construct prezementer identical to withes Served. A 20' bys (7.25' core). No hydro calbon odors ob served. Construct prezementer identical to withes Served. A 20' bys (7.25' core). No hydro calbon odors ob served. 		Lo Sot Well barres,
- Tag piezemitre - No Water / Dry. 125 => Stare r: @ P2-2a -> Connens corring to 12.5' - Kritt Noutill leaves Site. 1. P2-2A/B will be installed identical to P2-14/B. 1. P2-2A/B will be installed identical to P2-14/B. 1. See geologic log and woll construction diagram for dutains. 20 => P2-2A correct to (2.5' -> No Hydrocerbon odors observed. -> Install Piezometer-identical construction as P2-1A 1. b Pre-pies Somean from 2.5-12.5' 655 - Wait for ACRW grows inspector for next coment seel installed in 2.5' Sto-20; present flux corre w/ 2.85" corre 1. barnel from 3.5.55' => remove annulus and tubing and reisfell vapor well - identical construction as \$6-2d. 1. Use dedicated teffon tubing and correnic Filter tip designated 1. Disc dedicated teffon tubing and correnic Filter tip designated 1. Disc dedicated teffon tubing and correnic Filter tip designated 1. Disc dedicated teffon tubing and corrent shows up. 2. Soil vapor well \$6-20 drill-out and reinstallation compute - Wait to sent untill growt inspector shows up. 2. Connects continuous core at P2-2B to 20' by; then 1. Construct prezometer identical to p2-2A (Pre-pack screen 1. from 17-20'). See geologic log and well contributed affer and 1. Soil vapor well \$6-20 drill-out and well contributed affer a free for the screen 1. Construct prezometer relation to p2-2A (Pre-pack screen 1. from 17-20'). See geologic log and well contributed affer a free for the screen 1. for det-23. 1. Construct piezometer - AREW inspector onside to aithess senting of P2-2A/B + \$6-20. 1. AREW inspector onside to aithess senting of P2-2A/B + \$6-20.	- Tay piezonutre - No Water / Dry. 25 27 Sheye ris @ PZ-Za -* Connews corring to 12.5' - Keith Nodell leaves Site. 1 PZ-2 A/R will be installed identical to PZ-14/8. 20 Zi galegic log and woll construction diagram for details. 20 Zi PZ-2A correct to (2.5' -* No Hydrocerbon odors observed. 21 Tristall Piezoneter_identical construction as PZ-1A 22 Correct to (2.5' -* No Hydrocerbon odors observed. 22 Tristall Piezoneter_identical construction as PZ-1A 23 Free piezoneter identical construction as PZ-1A 24 Correct Screen from 7.5-12.5' 655 25 Diezoneter installed. 26 Zi Piezoneter istalled. 27 Diezoneter installed. 28 Auger out to 3.5' SG-20; persone then corre w/ 2.25'' correct 29 Diezoneter installed. 20 Diezoneter well SG-20 drill-out and recinstallation compute 20 Diezoneter installe group inspector shows up. 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the out withes senting of PZ-ZA/8 # S6-20. 20 Diezoneter		
- Tag piezemitre - No Water / Dry. 125 => Stare r: @ P2-2a -> Connens corring to 12.5' - Kritt Noutill leaves Site. 1. P2-2A/B will be installed identical to P2-14/B. 1. P2-2A/B will be installed identical to P2-14/B. 1. See geologic log and woll construction diagram for dutains. 20 => P2-2A correct to (2.5' -> No Hydrocerbon odors observed. -> Install Piezometer-identical construction as P2-1A 1. b Pre-pies Somean from 2.5-12.5' 655 - Wait for ACRW grows inspector for next coment seel installed in 2.5' Sto-20; present flux corre w/ 2.85" corre 1. barnel from 3.5.55' => remove annulus and tubing and reisfell vapor well - identical construction as \$6-2d. 1. Use dedicated teffon tubing and correnic Filter tip designated 1. Disc dedicated teffon tubing and correnic Filter tip designated 1. Disc dedicated teffon tubing and correnic Filter tip designated 1. Disc dedicated teffon tubing and corrent shows up. 2. Soil vapor well \$6-20 drill-out and reinstallation compute - Wait to sent untill growt inspector shows up. 2. Connects continuous core at P2-2B to 20' by; then 1. Construct prezometer identical to p2-2A (Pre-pack screen 1. from 17-20'). See geologic log and well contributed affer and 1. Soil vapor well \$6-20 drill-out and well contributed affer a free for the screen 1. Construct prezometer relation to p2-2A (Pre-pack screen 1. from 17-20'). See geologic log and well contributed affer a free for the screen 1. for det-23. 1. Construct piezometer - AREW inspector onside to aithess senting of P2-2A/B + \$6-20. 1. AREW inspector onside to aithess senting of P2-2A/B + \$6-20.	- Tay piezonutre - No Water / Dry. 25 27 Sheye ris @ PZ-Za -* Connews corring to 12.5' - Keith Nodell leaves Site. 1 PZ-2 A/R will be installed identical to PZ-14/8. 20 Zi galegic log and woll construction diagram for details. 20 Zi PZ-2A correct to (2.5' -* No Hydrocerbon odors observed. 21 Tristall Piezoneter_identical construction as PZ-1A 22 Correct to (2.5' -* No Hydrocerbon odors observed. 22 Tristall Piezoneter_identical construction as PZ-1A 23 Free piezoneter identical construction as PZ-1A 24 Correct Screen from 7.5-12.5' 655 25 Diezoneter installed. 26 Zi Piezoneter istalled. 27 Diezoneter installed. 28 Auger out to 3.5' SG-20; persone then corre w/ 2.25'' correct 29 Diezoneter installed. 20 Diezoneter well SG-20 drill-out and recinstallation compute 20 Diezoneter installe group inspector shows up. 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the up zo ZA (Pre-pack screen 20 Diezoneter inspector on the out withes senting of PZ-ZA/8 # S6-20. 20 Diezoneter	115	=> healt baxes installed
 25 27 Stage r: Q PZ-Za - Contrand corring to 12.5' KNAM Nowell leaves Site. PZ-ZA/R will be installed identical to PZ-14/R. PZ-ZA/R will be installed identical to PZ-14/R. See geologic log and well construction diagram for details. 20 => PZ-ZA could to (2.5' -> No Hydrocubon odors observed. -> Install Piezonetr-identical construction as PZ-14 Concerning for ACRW grounds inspector for neut coment seed. installation 20 -20 with to 3.5' Sb-ZO; preserve then cone w/ 2.85" cone barrel from 3.5-S5' => remove annulus and tubing and reinstell vapor well - identical construction as Sb-2d. Ose dedicated tellon tubing and cernatic filter tip designated for this project (equipment blank data otherind) Soil vapor well Sb-ZO drill-out and reinstallation compute Whit to sent whill grow inspector shows yp. Commence continuous core at PZ-ZB to 20' by; then Construct piezoneter identical to pz-ZA (pre-pick screen from 14-20'). See geologic log and well contribution diagram for diagram for ditagram for details. 	25 27 Stage r: @ PZ-Za -* Connence coring to 12.5' - Keith Nowll lenves Stt. - Keith Nowll lenves Stt. - Reith Nowll lenves Stt. - Reith Nowll lenves Stt. - Reith Nowll lenves Stt. - Reith Nowll lenves Struction diagram for defails. - Reith Reconstruction and PZ-14/8. - Tristall Prezonetic - identical construction as PZ-14 - Tristall Prezonetic - identical construction as PZ-14 - Tristall Prezonetic - identical construction as PZ-14 - Unit for ACRW growns inspector for reat coment seal - Wait for ACRW growns inspector for reat coment seal - Wait for SS' SG-ZO; reasons this cone w/ 2.85" core - Wait for 3.5' SG-ZO; reasons this cone w/ 2.85" core - Wait for 3.5' SG-ZO; reasons this cone w/ 2.85" core - Wait for 3.5' SG-ZO; reasons this cone w/ 2.85" core - Warrel from 3.5' SG-ZO; reasons this cone w/ 2.85" core - Warrel from 3.5' SG-ZO; reasons this cone w/ 2.85" core - Warrel from 3.5' SG-ZO; reasons this cone w/ 2.85" core - Warrel from 3.5' SG-ZO; reasons this cone w/ 2.85" core - Warrel from 3.5' SG-ZO; reasons the thing and the start of the seal - Reight waper well - identical construction as SG-ZCL - Use dedicated tellon tubing and coreanic filter tip designated - for this project (equipment blank data oftantical seal - Wait to seal untill growt inspector shows up. - Commente configuous core at PZ-ZB to ZO' by: flas - Construct prezenter identical to PZ-ZA (Pre-pack screen - from 17-20'). See geologic log and well construction diagram - for det-JS. - Arebu inspector onside to witness sealing of PZ-ZA/8 # SG-20. - Arebu inspector onside to witness sealing of PZ-ZA/8 # SG-20.		- Tag piezometers - No Water / Dry.
 PZ-2A/R will be installed identical to PZ-14/8. In See geologic log and wall construction diagram for details. 200 => PZ-2A cored to (2.5' → No Hydrocubon a dars obsurved. -> Install Piezonetur-identical construction as PZ-1A In Construct for ACRW ground inspector for neat coment serel installation 200 => Piezonetur installed. - Avana out to 3.5' SG-2O; premove annulus and tubing, and reinstell unpor well = identical construction as SG-2D. Ose dedicated teflon tubing and contained tubing, and reinstell unpor well = identical construction construction Soci vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill grout inspector shows up. Commence configuous core at PZ-ZB to 20' by: then Construct piezonetur identical to pz-ZA (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bys (2:25'' core). No hydrocarbon adors observed. Construct piezoneter Are's log bys (2:25'' core). No hydrocarbon adors observed. Are's log bys (2:25'' core). No hydrocarbon adors observed. 	 PI-2.A/B Will be installed identical to PZ-14/8. In See geologic log and well construction diagram for details. PZ-2.A cored to (2.5' ~ No Hydrocerbon odors observed. Tastall Piczoneter-identical construction as PZ-1A In Piczoneter installed. Augus out to 3.5' SU-20; preserve then cone w/ 2.85" core Datrel from 3:5: SU-20; preserve annulus and tubin, and reinstell unpor well - identical construction as SU-2D. Use dedicated tection tubing and coreanic Filter tip designated for this project (equipment blank date obtained) 20 => Soil vapor well SU-20 drill-out and reinstallation compute Wait to sent untill growt inspecter shows up. Commence continuous core at PZ-28 to 20' bis; then Construct piczoneter identical to pz-2A (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bis (2:25" core). No hydrocarbon odors observed. Construct piczoneter At 20' bis (2:25" core). No hydrocarbon odors observed. AcPW inspector onside to witness senting of PZ-2A/8 * S6-20. 		
 PZ-2A/R will be installed identical to PZ-14/8. In See geologic log and wall construction diagram for details. 200 => PZ-2A cored to (2.5' → No Hydrocubon a dars obsurved. -> Install Piezonetur-identical construction as PZ-1A In Construct for ACRW ground inspector for neat coment serel installation 200 => Piezonetur installed. - Avana out to 3.5' SG-2O; premove annulus and tubing, and reinstell unpor well = identical construction as SG-2D. Ose dedicated teflon tubing and contained tubing, and reinstell unpor well = identical construction construction Soci vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill grout inspector shows up. Commence configuous core at PZ-ZB to 20' by: then Construct piezonetur identical to pz-ZA (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bys (2:25'' core). No hydrocarbon adors observed. Construct piezoneter Are's log bys (2:25'' core). No hydrocarbon adors observed. Are's log bys (2:25'' core). No hydrocarbon adors observed. 	 PI-2.A/B Will be installed identical to PZ-14/8. In See geologic log and well construction diagram for details. PZ-2.A cored to (2.5' ~ No Hydrocerbon odors observed. Tastall Piczoneter-identical construction as PZ-1A In Piczoneter installed. Augus out to 3.5' SU-20; preserve then cone w/ 2.85" core Datrel from 3:5: SU-20; preserve annulus and tubin, and reinstell unpor well - identical construction as SU-2D. Use dedicated tection tubing and coreanic Filter tip designated for this project (equipment blank date obtained) 20 => Soil vapor well SU-20 drill-out and reinstallation compute Wait to sent untill growt inspecter shows up. Commence continuous core at PZ-28 to 20' bis; then Construct piczoneter identical to pz-2A (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bis (2:25" core). No hydrocarbon odors observed. Construct piczoneter At 20' bis (2:25" core). No hydrocarbon odors observed. AcPW inspector onside to witness senting of PZ-2A/8 * S6-20. 	125	=> Stare Fig @ PZ-Za -> Commones coring to 12.5'
 PZ-2A/R will be installed identical to PZ-14/8. In See geologic log and wall construction diagram for details. 200 => PZ-2A cored to (2.5' → No Hydrocubon a dars obsurved. -> Install Piezonetur-identical construction as PZ-1A In Construct for ACRW ground inspector for neat coment serel installation 200 => Piezonetur installed. - Avana out to 3.5' SG-2O; premove annulus and tubing, and reinstell unpor well = identical construction as SG-2D. Ose dedicated teflon tubing and contained tubing, and reinstell unpor well = identical construction construction Soci vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill grout inspector shows up. Commence configuous core at PZ-ZB to 20' by: then Construct piezonetur identical to pz-ZA (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bys (2:25'' core). No hydrocarbon adors observed. Construct piezoneter Are's log bys (2:25'' core). No hydrocarbon adors observed. Are's log bys (2:25'' core). No hydrocarbon adors observed. 	 PI-2.A/B Will be installed identical to PZ-14/8. In See geologic log and well construction diagram for details. PZ-2.A cored to (2.5' ~ No Hydrocerbon odors observed. Tastall Piczoneter-identical construction as PZ-1A In Piczoneter installed. Augus out to 3.5' SU-20; preserve then cone w/ 2.85" core Datrel from 3:5: SU-20; preserve annulus and tubin, and reinstell unpor well - identical construction as SU-2D. Use dedicated tection tubing and coreanic Filter tip designated for this project (equipment blank date obtained) 20 => Soil vapor well SU-20 drill-out and reinstallation compute Wait to sent untill growt inspecter shows up. Commence continuous core at PZ-28 to 20' bis; then Construct piczoneter identical to pz-2A (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bis (2:25" core). No hydrocarbon odors observed. Construct piczoneter At 20' bis (2:25" core). No hydrocarbon odors observed. AcPW inspector onside to witness senting of PZ-2A/8 * S6-20. 		- Krity Nousell leaves Site.
 See geologic log and woll construction diagram for dutails. 200 => PZ-2A cored to (2.5' -> No Hydrocerbon orders observed. -> Install Prezonater_identical construction as PZ-1A b Pre-park serven from PS-12.5' bis - Waith for ACRW ground inspector for neat comment serel installation 200 => Piezonater installed. - Augur out to 3.5' Sb-20; pensare than core w/ 2.25" core barrel from 3.5-85' => remove annulus and tubin, and reinstell unper well = identical construction as Sb-20. • Use dedicated tellon tubing and coranic filter tip designated for this project (equipment black data obtaind) 320 => Soil vapor well Sb-20 drill-out and reinstallation compute Wait to Sen1 untill growt inspector-shows yp. Commence continuous core at PZ-ZB to 20' bis; thus Construct piezonater identical to PZ-ZA (Pre-pack Scrien for details.) soil vapor well. See geologic log and well construction diagram for details. 	See geologic log and woll construction diagram for details. See geologic log and woll construction diagram for details. => 72-24 cored to (2.5' -> No Hydrocerbon odors observed. -> Install Prezoneter-identical construction as P2-14 be Pre-pack Server from 9.5-12.5' 635 - Weit for ACRW growns inspector for next coment seed installation 50 => Piezoneter installed. - Augur out to 3.5' SU-20; penaere flux core w/ 2.85" core barrel from 3.5.55' => remove annulus and tubing, and reinstell unper well - identical construction as SG-20' • Use dedicated tellon tubing and coranic filter tip designated for this project (equipment black data otherwid) 20 => Soil vapor well SG-20 drill-out and reinstallation complete - Wait to sent untill growt inspector-shows yp. Construct prezoneter identical to P2-28 to 20' 635; then from 17-20'). See geologic log and well construction diagram for details. ACPW inspector onside to witness Senting of P2-24/8 * SG-20.		
 See geologic log and woll construction diagram for dutails. 200 => PZ-2A cored to (2.5' -> No Hydrocerbon orders observed. -> Install Prezonater_identical construction as PZ-1A b Pre-park serven from PS-12.5' bis - Waith for ACRW ground inspector for neat comment serel installation 200 => Piezonater installed. - Augur out to 3.5' Sb-20; pensare than core w/ 2.25" core barrel from 3.5-85' => remove annulus and tubin, and reinstell unper well = identical construction as Sb-20. • Use dedicated tellon tubing and coranic filter tip designated for this project (equipment black data obtaind) 320 => Soil vapor well Sb-20 drill-out and reinstallation compute Wait to Sen1 untill growt inspector-shows yp. Commence continuous core at PZ-ZB to 20' bis; thus Construct piezonater identical to PZ-ZA (Pre-pack Scrien for details.) soil vapor well. See geologic log and well construction diagram for details. 	See geologic log and woll construction diagram for details. See geologic log and woll construction diagram for details. => 72-24 cored to (2.5' -> No Hydrocerbon odors observed. -> Install Prezoneter-identical construction as P2-14 be Pre-pack Server from 9.5-12.5' 635 - Weit for ACRW growns inspector for next coment seed installation 50 => Piezoneter installed. - Augur out to 3.5' SU-20; penaere flux core w/ 2.85" core barrel from 3.5.55' => remove annulus and tubing, and reinstell unper well - identical construction as SG-20' • Use dedicated tellon tubing and coranic filter tip designated for this project (equipment black data otherwid) 20 => Soil vapor well SG-20 drill-out and reinstallation complete - Wait to sent untill growt inspector-shows yp. Construct prezoneter identical to P2-28 to 20' 635; then from 17-20'). See geologic log and well construction diagram for details. ACPW inspector onside to witness Senting of P2-24/8 * SG-20.		1. PZ-7. A/R will be installed identical to PZ-14/8.
 200 => PZ-ZA cored to (2.5' -> No Hydrocerbon odors observed. -> Theshill Prozoneter_identical construction as PZ-1A lo Pre-pack serven from 7.5-12.5' 655 - Wait for ACRW growne from 7.5-12.5' 655 - Wait for ACRW growne from 0.5-12.5' 655 - Wait for ACRW growne from 0.5-12.5' 655 - Augur out to 3.5' SU-20; preserve from 0.5.25'' core barrel from 3.5.55' => remove annulus and tubing end reinstell unpor well - identical construction as SU-20. • Use dedicated tellon tubing and cereanic Filter tip designated for this project (equipment blank data oftained) 320 => Soil vapor well SU-20 drill-out and reinstallation compute - Whit to sent untill grout inspector shows up. • Commence continuous core at PZ-ZB to 20' 655; then construct piezoneter identical to pZ-ZA (pre-pack screen from 17'-20'). See goologic log and well construction diagram for det-23. 130 => At 20' bys (2.25" core). No hydro carbon odors ob served. • Construct piezoneter - ACPW inspector onside to witness senting of PZ-2A/B * SG-20. 	 PZ-2A cored to (2.5' ~ No Hydrocerbon odors observed) Thistall Prezoneter-identical construction as PZ-1A In Pre-pack Serven from 9.5-12.5' by - Wait for ACRW ground inspector for reat comment served installation Prezoneter installed. - Augur out to 3.5' SU-20; previous annulus and tubing, and reinstell from 3.5-SS' => remove annulus and tubing, and reinstell unpor well - identical construction as SO-20. Use dedicated tellon tubing and cenaric Filtur tip designated for this project (equipment blank data obtained) zo => Soil vapor well SU-20 drill-out and reinstallation compute Wait to sent and!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!		
 200 => PZ-ZA cored to (2.5' -> No Hydrocerbon odors observed. -> Theshill Prozoneter_identical construction as PZ-1A lo Pre-pack serven from 7.5-12.5' 655 - Wait for ACRW growne from 7.5-12.5' 655 - Wait for ACRW growne from 0.5-12.5' 655 - Wait for ACRW growne from 0.5-12.5' 655 - Augur out to 3.5' SU-20; preserve from 0.5.25'' core barrel from 3.5.55' => remove annulus and tubing end reinstell unpor well - identical construction as SU-20. • Use dedicated tellon tubing and cereanic Filter tip designated for this project (equipment blank data oftained) 320 => Soil vapor well SU-20 drill-out and reinstallation compute - Whit to sent untill grout inspector shows up. • Commence continuous core at PZ-ZB to 20' 655; then construct piezoneter identical to pZ-ZA (pre-pack screen from 17'-20'). See goologic log and well construction diagram for det-23. 130 => At 20' bys (2.25" core). No hydro carbon odors ob served. • Construct piezoneter - ACPW inspector onside to witness senting of PZ-2A/B * SG-20. 	 PZ-2A cored to (2.5' ~ No Hydrocerbon odors observed) Thistall Prezoneter-identical construction as PZ-1A In Pre-pack Serven from 9.5-12.5' by - Wait for ACRW ground inspector for reat comment served installation Prezoneter installed. - Augur out to 3.5' SU-20; previous annulus and tubing, and reinstell from 3.5-SS' => remove annulus and tubing, and reinstell unpor well - identical construction as SO-20. Use dedicated tellon tubing and cenaric Filtur tip designated for this project (equipment blank data obtained) zo => Soil vapor well SU-20 drill-out and reinstallation compute Wait to sent and!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!		Las See Geologie los and wall construction diagram for details.
-> Tastall Prozoneter-identical construction as PZ-1A be Pre-park Server from 9.5-12.5' 695 - Wait for ACPW growne inspector for reat coment ser./ installation 230 => Product installed. - Augur out to 3.5' SU-20; percense then core w/ 2.85" core berral from 3.5.55' => remove annulus and tubing and reinstell unpor well - identical construction as SG-20. • Use dedicated tefton tubing and cerearic filter tip designated for this project (equipment blank date of thind) 320 => Soil vapor well SG-20 drill-out and reinstallation compute - Wait to sent untill growt inspector shows yp. • Commence confinuous core at PZ-28 to 20' 695; then construct prezoneter identical to pZ-24 (pre-pack screen from 14'-20'). See geologic log and well construction diagram for detals. 130 => At 20' bys (2.25" cure). No hydro carbon odors ob served • Construct piezometer - ACPW inspector onsate to witness senting of PZ-24/8 + SG-20-	-> Tristall Prozonetr-identical construction as PZ-1A b Pre-pack server from 9.5-12.5' 695 - Wait for ACRW growns inspector for reat comment served iastallation 50 => Piczonetre installed. - Augur out to 3.5' SU-20; personant flux come w/ 2.85" come barrel from 3.5.85' => remove annulus and tubing and reinstell unpor well - identical construction as SU-20. • Use dedicated teston tubing and cerearic Filter tip designated for this project (equipment blank date obtained) => Soil vapor well SU-20 drill-out and reinstallation compute - Wait to sent untill growt inspector-shows yp. - Commence continuous come at PZ-28 to 20' 695; flus (anstruct piezoneter identical to PZ-2A (Pre-pack screen from 17'-20'). See geologic log and well contribution diagram for det-13. -> At 20' bys (2.25" core). No hydro carbon odors ob served - Arew inspector onsafe to witness senting of PZ-2A/8 # SG-20-		
-> Tastall Prozoneter-identical construction as PZ-1A be Pre-park Server from 9.5-12.5' 695 - Wait for ACPW growne inspector for reat coment ser./ installation 230 => Product installed. - Augur out to 3.5' SU-20; percense then core w/ 2.85" core berral from 3.5.55' => remove annulus and tubing and reinstell unpor well - identical construction as SG-20. • Use dedicated tefton tubing and cerearic filter tip designated for this project (equipment blank date of thind) 320 => Soil vapor well SG-20 drill-out and reinstallation compute - Wait to sent untill growt inspector shows yp. • Commence confinuous core at PZ-28 to 20' 695; then construct prezoneter identical to pZ-24 (pre-pack screen from 14'-20'). See geologic log and well construction diagram for detals. 130 => At 20' bys (2.25" cure). No hydro carbon odors ob served • Construct piezometer - ACPW inspector onsate to witness senting of PZ-24/8 + SG-20-	-> Tristall Prozonetr-identical construction as PZ-1A b Pre-pack server from 9.5-12.5' 695 - Wait for ACRW growns inspector for reat comment served iastallation 50 => Piczonetre installed. - Augur out to 3.5' SU-20; personant flux come w/ 2.85" come barrel from 3.5.85' => remove annulus and tubing and reinstell unpor well - identical construction as SU-20. • Use dedicated teston tubing and cerearic Filter tip designated for this project (equipment blank date obtained) => Soil vapor well SU-20 drill-out and reinstallation compute - Wait to sent untill growt inspector-shows yp. - Commence continuous come at PZ-28 to 20' 695; flus (anstruct piezoneter identical to PZ-2A (Pre-pack screen from 17'-20'). See geologic log and well contribution diagram for det-13. -> At 20' bys (2.25" core). No hydro carbon odors ob served - Arew inspector onsafe to witness senting of PZ-2A/8 # SG-20-	200	=> PZ-2A cored to 12.5' ~ No Hydrocarbon odors obsurved
 la Pre-pack Server from 9.5-12.5' 655 - Whith for ACPW growne inspector for next coment serel installed in the inspector for next coment serel installed. - Augur out to 3.5' Sb-20; prenewe then come w/ 2.85" come barrel from 3.5.85' => remove annulus and tubing, and reinstell unpor well - identical construction as Sb-20. • Use dedicated tefton tubing and certain of the tip designated for this project (equipment blank data of third) Sco => Soil vapor well Sb-20 drill-out and reinstallation compute - Whith to Seni untill growt inspector shows up. Commence continuous core at PZ-28 to 20' bys; then construct prezometer identical to PZ-84 (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for det-13. At 20' bys (2.25" core). No hydro carbon odors ob served. Arpw inspector onside to witness serving of PZ-24/8 + S6-20- 	Le Pre-pret Serven from 9.5-12.5' 655 - Wait for ACRW yround inspector for reat coment serel installation 30 => Piczonster installed. - Augur out to 3.5' SG-20; pressure than come w/ 2.85" come barrel from 3.5.85' => remove annulus and tubing and reinstell unpor well - identical construction as SG-20. • Use dedicated tefton tubing and cerearic Filter tip designated for this project (equipment blank data obtained) 20 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill grout inspector shows up. • Commence continuous core at PZ-28 to 20' bys; then construct piezoneter identical to PZ-10 (pre-pack screen from 17'-20'). See geologic log and well construction diagram for detals. 10 At 20' bys (2.25" core). No hydro carbon odoes ob served • Construct piezoneter - ACRW inspector onsate to witness senting of PZ-24/8 + SG-20-		
- Wait for ACRW growne inspector for neat coment seal installation 250 => Piezonatur installed. - Augur out to 3.5' SG-20; persone this come w/ 2.85" cone baired from 3.5.55' => remove annulus and tubing, and reiostell unpor well - identical construction as SG-20' • Use dedicated teflor tubing and ceranic filtur tip designated for this project (equipment blank data oftained) 520 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. • Commence continuous core at PZ-ZB to 20' by; then construct piezoneter identical to pZ-20 (Pre-pack screen from 17'-20') See geologic log and well construction diagran for det=15. 130 => At 20' bys (2.25" cure). No hydro carbon odors ob served • Construct piezoneter - ACRW inspector onside to witness senting of PZ-24/B * SG-20-	- Wait for ACRW growne inspector for neat coment seed installation 20 => Piczonater installed. - Augur out to 3.5' SG-20; persone then core w/ 2.85" core barrel from 3.5-55' => remove annulus and tubing and reinstell vapor well - identical construction as SG-20' • Use dedicated teffon tubing and ceranic Filter tip designated for this project (equipment blank data oftained) 20 => Soil vapor well SG-20 drill-out and reinstallation compute - Wait to sent untill growt inspector-shows yp. • Commence confinuous core at PZ-ZB to 20' bys; then from 17'-20'.) See geologic log and well construction diagram for det=13. 10 bys (2.25" cure). No hydro carbon odors ob served. • Construct piezometer • ACRW inspector onsite to witness senting of PZ-24/B * SG-20-		
 rostelleding rostelleding Augur out to 3.5' SG-20; persone then cone w/ 2.85" cone barrel from 3.5.55' => remove annulus and tubing, and reiostell unpor well - identical construction as SG-20. Use dedicated tellon tubing and construction as SG-20. Use dedicated tellon tubing and construction as SG-20. Soil vapor well SG-20 drill-out and reinstallation compute. Wait to sent untill growt inspector shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct prezoneter identical to pz-20. (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for det=15. ArPW inspector onsate to witness senting of PZ-24/8 * SG-20- 	 installation installation Piczonatur installed. Augur out to 3.5' SU-20; persone that come w/ 2.85" cone barrel from 3.5.55' => remove annulus and tubing, and reinstell unper well - identical construction as SU-20. Use dedicated tellon tubing and construction as SU-20. Soil vapor well SU-20 drill-out and reinstallation compute. Whit to Sent untill growt inspector shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to pZ-20. (Pre-pack screen from 17'-20') See geologic log and well construction diagram for detalls. At 20' bys (7.25" core). No hydro carbon odors ob served. Construct piezometer Arew inspector onside to witness senting of PZ-24/B * SG-20- 		- Whit for ACPW acount inspector for reat coment seal
 250 => Piczoneter installed. Auger out to 3.5' Sb-20; persone the core w/ 2.85" core barrel from 3.5.55' => remove annulus and tubing, and reisstell unpor well - identical construction as Sb-20. Use dedicated teffor tubing and ceranic filter tip designated for this project (equipment black data obtained) 320 => Soil vapor well Sb-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezoneter identical to pZ-2A (pre-pack screen from 17'-20'). See geologic log and well construction diagram for detals. 180 => At 20' bys (2.25" core). No hydro carbon odors ob served. Construct piezoneter identical to pZ-2A/B * Sb-20- 	 20 => Piczoneter institued. Augus out to 3.5' SU-20; persone then core w/ 2.85" core barrel from 3.5.55' => remove annulus and tubing, and reinstell unpor well - identical construction as SU-20. Nose dedicated tellon tubing and ceranic filter tip designated for this project (equipment blank date obtained) 20 => Soil vapor well SU-20 drill-out and reinstallation compute. Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bgs; then construct piezoneter identical to pZ-ZA (pre-pack screen for UT-20'). See geologic log and well construction diagram for details. 20 ⇒ At 20' bgs (2.25" core). No hydro carbon odoes ob served. Construct piezoneter ArPU inspector onside to witness Senting of PZ-ZA/B * SG-20- 		iast 11 dien
- Augus out to 3.5' SG-20; persone the cone w/ 2.85" cone barrel from 3.5.55' => remove annulus and tubing and reiostell unpor well - identical construction as SG-20. • Use dedicated terion tubing and ceranic filter tip designated for this project (equipment blank data obtained) SZO => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct prezonetar identical to pZ-20 (Pre-pack screen from 17'-20') See geologic log and well construction diagram for detals. 130 => At 20' bys (2.25" cure). No hydro carbon odors ob served. • Construct prezonetar • AcPW inspector onside to witness senting of PZ-24/B * SG-20-	- Augus out to 3.5' Sb-20; persone the core w/ 2.85" core barrel from 3.5.55' => remove annulus and tubing, and reinstell unpor well - idention construction as Sb-20. • Use dedicated tesson tubing and ceranic Filter tip designated for this project (equipment blank data obtained) 20 => Soil vapor well Sb-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows yp. • Commence continuous core at PZ-ZB to 20' bys; then construct prezoneter identical to pZ-1A (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for det=13. 10 => At 20' bys (2.25" core). No hydro carbon odors ob served. • ACPW inspector onsite to witness senting of PZ-2A/B * SG-20-	230	=2 Discounter installed
 Use dedicated terlon tubing and cenanic filter tip designated for this project (equipment blank data obtained) 320 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for detals. 130 => At 20' bys (2.25" core). No hydro carbon odors ob served. Construct piezometer ACPW inspector onside to witness senting of PZ-ZA/B * SG-20- 	 Use dedicated terror tubing and conanic filter tip designated for this project (equipment blank data obtained) 20 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. 30 => At 20' bys (2.25" core). No hydro carbon odoes ob served. Construct piezometer Arew inspector onside to witness senting of PZ-ZA/B * SG-20- 		- Avan but to 3.5' SG-20; persons then come w/ 2.85" come
 Use dedicated terlon tubing and cenanic filter tip designated for this project (equipment blank data obtained) 320 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for detals. 130 => At 20' bys (2.25" core). No hydro carbon odors ob served. Construct piezometer ACPW inspector onside to witness senting of PZ-ZA/B * SG-20- 	 Use dedicated terror tubing and conanic filter tip designated for this project (equipment blank data obtained) 20 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. 30 => At 20' bys (2.25" core). No hydro carbon odoes ob served. Construct piezometer Arew inspector onside to witness senting of PZ-ZA/B * SG-20- 		bacol from 3.5.55' = remove annulus and tubing and
 Use dedicated terlon tubing and cenanic filter tip designated for this project (equipment blank data obtained) 320 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for detals. 130 => At 20' bys (2.25" core). No hydro carbon odors ob served. Construct piezometer ACPW inspector onside to witness senting of PZ-ZA/B * SG-20- 	 Use dedicated terror tubing and conanic filter tip designated for this project (equipment blank data obtained) 20 => Soil vapor well SG-20 drill-out and reinstallation compute - Whit to sent untill growt inspector shows up. Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. 30 => At 20' bys (2.25" core). No hydro carbon odoes ob served. Construct piezometer Arew inspector onside to witness senting of PZ-ZA/B * SG-20- 		rejected vapor well - identical construction as SG-20
tor this project (equipment blank data obtained) 320 => Soil vapor well SG-20 drill-out and reinstallation compute - Whith to sent untill growt inspector-shows yp. • Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack Screen from 17'-20'). See geologic log and well construction diagram for det=JS. 130 => At 20' bys (2.25" cure). No hydro carbon odors observed. • Construct piezometer • Arew inspector onsite to witness senting of PZ-ZA/B * SG-20-	tor this project (equipment black data obtained) 20 => Soil vapor well SG-20 drill-out and reinstallation compute - Whith to sent untill growt inspector—shows up. • Commence continuous core at PZ-ZB to 20' bys; then construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20'). See geologic log and well construction diagram for det=25. 30 => At 20' bys (2.25" cure). No hydro carbon odors ob served. • Construct piezometer - ACPW inspector onsate to witness senting of PZ-ZA/B * SG-20-		· Use dedicated te Flon tubing and cenanic Filter tip designated
 Soil vapor well SG-20 drill-out and reinstallation compute Whit to sent untill grout inspector shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct prezoneter identical to pZ-ZA (pre-pack screen from 17'-20'). See geologic log and well construction diagram for details. At 20' bys (2.25" cure). No hydro carbon odors ob served. Construct prezoneter AcPW inspector onside to witness senting of PZ-ZA/B * SG-20- 	20 => Soil vapor well SG-20 drill-out and reinstallation compute - Wait to seal untill grout inspector-shows yp. • Commence continuous core at PZ-ZB to 20' bgs; then construct prezometer identical to pZ-ZA (pre-pack screen from 17'-20') See geologic log and well construction diagram for detals. 30 => At 20' bgs (2.25" core). No hydro carbon odors ob served. • Construct prezometer - ACPW inspector onside to witness sealing of PZ-ZA/B * SG-20-		for this project (equipment black data of thind)
- Whit to sent untill growt inspector shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct prezometer identical to PZ-ZA (Pre-pack screen from 17'-20') See geologic log and well construction diagram for detals. 130 = At 20' bys (2.25" core). No hydro carbon odors ob served. Construct prezometer - ACPW inspector onside to witness senting of PZ-ZA/B + SG-20-	- Whit to sent untill grout inspector—shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct prezometer identical to PZ-ZA (Pre-pack Screen from 17'-20') See geologic log and well construction diagram for detals. 30 => At 20' bys (2.25" cure). No hydro carbon odors ob served. Construct prezometer - ACPW inspector onside to witness senting of PZ-ZA/B * SG-20-		the first of predict of the state of the sta
- Whit to sent untill growt inspector shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct prezometer identical to PZ-ZA (Pre-pack screen from 17'-20') See geologic log and well construction diagram for detals. 130 = At 20' bys (2.25" core). No hydro carbon odors ob served. Construct prezometer - ACPW inspector onside to witness senting of PZ-ZA/B + SG-20-	- Whit to sent untill grout inspector—shows yp. Commence continuous core at PZ-ZB to 20' bys; then construct prezometer identical to PZ-ZA (Pre-pack Screen from 17'-20') See geologic log and well construction diagram for detals. 30 => At 20' bys (2.25" cure). No hydro carbon odors ob served. Construct prezometer - ACPW inspector onside to witness senting of PZ-ZA/B * SG-20-	320	=> Sail vacant well SG-20 dill-out and reinstallation computer
 Commence continuous core at PZ-ZB to 20' bys; then Construct prezoneter identical to PZ-ZA (Pre-pack screen from 17'-20') See geolog: (log and well construction diagram for details. 130 => At 20' bys (2.25" core). No hydro carbon odors ob served. Construct prezoneter At 20' bys (2.25" core). No hydro carbon odors ob served. Construct prezoneter AcPW inspector onsate to witness senting of PZ-ZA/B + SG-20- 	 Commence continuous core at PZ-ZB to 20' bys; then Construct prezoneter identical to PZ-ZA (Pre-pack screen from 17'-20') See geolog: (log and well construction diagram for detals. for detals. At 20' bys (2.25" cure). No hydro carbon odors ob served. Construct prezoneter At 20' bys (2.25" cure). No hydro carbon odors ob served. Construct prezoneter AcPW inspector onside to witness senting of PZ-2A/B # SG-20- 		- Wait to coal watill arout in spector shows you
Construct prezoneter identical to pz-ZA (Pre-pack screen from 17'-20') See geologic log and well construction diagram for details. 130 => At 20' bys (2.25" cure). No hydrocarbon odors observed. Construct prezonater - ACPW inspector onsate to witness senting of PZ-ZA/B * SG-20-	Construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20') See geologic log and well construction diagram for details. 30 => At 20' bgs (2.25" cure). No hydrocarbon odors observed. . Construct piezometer - ACPW inspector onsafe to witness senting of PZ-ZA/B * SG-20-		
Construct prezoneter identical to pz-ZA (Pre-pack screen from 17'-20') See geologic log and well construction diagram for details. 130 => At 20' bys (2.25" cure). No hydrocarbon odors observed. Construct prezonater - ACPW inspector onsate to witness senting of PZ-ZA/B * SG-20-	Construct piezometer identical to PZ-ZA (Pre-pack screen from 17'-20') See geologic log and well construction diagram for details. 30 => At 20' bgs (2.25" cure). No hydrocarbon odors observed. . Construct piezometer - ACPW inspector onsafe to witness senting of PZ-ZA/B * SG-20-		· Company continuous core at PZ-ZB to 20' bar. then
130 => At 20' bys (2.25" cure). No hydro carbon odors observed. Construct piezometer - ACPW inspector onside to witness senting of PZ-24/B + SG-20-	to carries. 30 => At 20' bys (2.25" cure). No hydro carbon odors observed. Construct piezometer - ACPW inspector onside to witness senting of PZ-2A/B * SG-20-		Construct dependent identical to RZ-TA (Pre-pack Screen
130 => At 20' bys (2.25" cure). No hydro carbon odors observed. Construct piezometer - ACPW inspector onside to witness senting of PZ-24/B + SG-20-	to carries. 30 => At 20' bys (2.25" cure). No hydro carbon odors observed. Construct piezometer - ACPW inspector onside to witness senting of PZ-2A/B * SG-20-		From 171-2011 See applants las and well coorteration dialized
130 => At 20' bys (2.25" cure). No hydro carbon odors observed. Construct piezometer - ACPW inspector onside to witness senting of PZ-24/B + SG-20-	10 => At 20' bys (2.25" cure). No hydro carbon odors observed. Construct p:ezometer - ACPW inspector onside to witness senting of PZ-24/B = SG-20-		Les deters
· Construct piezometer · ACPU inspector onsate to witness senting of PZ-24/B * SG-2U-	· Construct piezometer · ACPU inspector onsite to witness senting of PZ-ZA/B * SG-20-		
· Construct piezometer · ACPU inspector onsate to witness senting of PZ-24/B * SG-2U-	· Construct piezometer · ACPU inspector onsite to witness senting of PZ-ZA/B * SG-20-	130	= At 70' by (2.25" mere). No huden carbon adors ob sorund
- ACPU inspector onsite to witness senting of PE-24/3 & SU-CU-	- ACPU inspector onsite to witness senting of PZ-ZA/B \$ 20-20-		· Construct Diszomatic
			ACPUS increator parte to withour Sentine of PZ-7A/R & SG-20-
Jan a 7/28/2	Signature of Field Personnel &		- press my press my my and to comp a to comp
<u>a</u> + 28/4	Signature of Field Personnel &		
	Signature of Field Personnel &		Circular + 28/4

Weber, Hayes & Associates Hydrogeology and Environmental Engineering 120 Westgate Dr., Watsonville, CA 95076 PH: (831) 722-3580 FAX: (831) 722-1159 www.weber-hayes.com	Text Page 3
Client: Golden Empire Properties	Date: July 28, 2017
Site Location: 3055 35th Avenue, Oakland, CA	Study #: 2X103.G
Field Tasks: Drilling Sampling Other (see below):	Weather Conditions:
Piezometer Installations	Sung + Warn
Personnel / Company On-Site: Jered Chaney (Weber, Hayes and Associates: W	
TIME:	
1515 = All growt seals installed (PZ-24/2B	+ SG-20)
1515 => All growt seals installed (PZ-24/2B • ACPES inspector tags wells + leaver site.	
(530 => Tag PZ-ZA/R -> DRV	······································
1530 => Tag PZ-ZA/B -> DRY	
-Set well boxes.	
1555 => All well boxes Set.	
· All soil cuttings / Decon water contained	Let an site in 55-1-1
drows.	and an side in ssi 9
· Clan p / Pro to Demos.	
1615 => Drmob.	
ECA Demoss.	

	· VIEN YP / FICT TO LEMOS.
	· clean p / rcp to Demos.
1615	=> DEMOS.
	=> Dinobs. ECA Demobs.
	Sc
	12817
	Signature of Field Personnel & Date
Filedlog\FOR	MS:xls - Standard Field Notes



_____ Site Map

____ Data Sheets

_____ Geologic Logs Photo Sheets

COC's

____ Chargeable Materials

Client: Oclelond	Date: 8/18/17
Site Location: 3055 35th Ave, Oakland, CA	Study #: Jx103.6
Field Tasks: Drilling Sampling Other (see below):	Weather Conditions:
5V sampling + DFW	Sunny
Personnel/Company On-Site: Secn (WHA)	
TIME:	
6900 - Arrive onsite. Begin w/ DTW@ A2-11 and	28. Notre the
held in the walk with the is inco	

	Arrive on site. Degin w/ 10100 F2 the and 20. Morne the
	the may and well Logs. Switch lids to correct.
	the help the bear of the transfer
	DTW in PL-1A . Dry @ 12.31'
	12-18 = 17.57' w/ total well depth of 19.56'
	17.57' w/ total well depth of 19.56' 2' of water @ 0.1 L/FF = 0.71 or 200mL of water
1000 -	Attempt to develop P2-18.
	All thread connectors same apart. Had to have to buy another
	All thread connectors came apart. Had to beave to buy another link to reach lost section and reconnect by Peel.
10:30-	Rohm to site. Reconnect all threads and add fallon tape to prevent
	uninfontional dosconnects. Complete development.
	0 10 1 to the last the last with with
145-	Puige well. Get u 300 mL, as anticipated, before dewater. Will weit for potential recturge. Get other well Depths
	Por potentia reading. Det other well repris
	MW-1: 19.61 MW-2: 17.78 MW-3: 5.091
\vdash	MW-4: 15.97' MW-5: 15.64' MW-6: 14.76'
	RW-5: 14.27' RW-6: 14.40' RW-7: 14.93'
	RW-5: 16,32' RW-9; 16.01' RW-10: 14.99'
	RW - 11: 14.43' $RW - 13: 14.34'$ $RW - 13: T4.02' 15, 7/'$
	RW-14: TH. 34' 15.06'
1230 -	Bisit us mclampbell arrives w/ SV Equipment. Move to sumple
	· pz-2A, 2B, & 56-20
	ATW: P2-0A: Wry C 10.01
	P2-23: Water @ 16.97'
1340 -	Buy which and the former to the second of the former to the second of th
19-0 -	Begin Collecting SV sumples w/ Sorbert and Summer See Rield sheets
1430	- Bears Original PZ-28 when are a he are dered 300 up before
110-	- Begin Developing P2-78. When purged, only produces 300mL before bewatering. Very brown, modey, water produced. Only 600mc
1515-	. Only soone purgets after 45min, go buch to collective GW depths. Called WHAt office
1670 -	AZ-10 PZ-LI only recovered to 19.21' of 19.56'. Not enough to sample
1685 -	Return to P2-28, only reconnect to 19.51 of 18.77. Not enough to sample

Signature of Field Personnel & Date

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project Na	me/No.:			Former Ex	xon Station /	2X103.Q			Date:	August 3(-March 28, 2	017
Sample No		PZ-18	8						Sample Location	n: PZ-1B	
Samplers				n Abbey (We	eber, Hayes,	& Associa	ntes)		Recorded by:	SA	
Purge Equ	ipment: Bailer: Disp Whaler # Peristaltic P	oosable or Ac ump ump (Grundf	-						Wh X Per	ent: bosable Bailer aler # istaltic Pump mersible Pum	
	Requested :								Number and		tle Use
			vengers by E	PA Method 8260				$- \in$	3 x 40 mL VOA's (HC	L preservative)	
TPH-diesel by	EPA Method 8								2 x 1 L Amber		
Well Numl	ber:	PZ-2	B								
Depth to V	Vater:	16.90'	тос			Pump Inta	ake Depth:		feet		
Well Dept	h:	20'	BGS or TO	DC (19.56 w	tual)	Pump Flo	w Rate:	100	mL/min		
Height W-	Column:	3.10'	feet (well o	lepth - depth i	to water)						
Lab:	Torrent i	3C Labos						Transport	tation: Co	urier	
Time (24 hr.)	Depth to Water (TOC)	Drawdown (feet)	Volume Purged (mL)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	pH .	ORP (mV)	Turbidity: Co	lor, Fines	Micropurg Paramate Stabilized
1055	16.90'		0	23.2	34.1	6.32	6.15	245.2	Tunnisl Brow	n, grappe	
1257			200	22.0	4074	3.40	6.69	119.4	charlete phil		
	įq.30 °	19.30'	Vewate 450 (for purge 51 empti since	ed .)					
		ພາແລ		80% re		sample	(=17.0	6' DT	رى		
N30	19.001	19.00'	Alter	~20min,	Potent	rally r	ecovered in	2.5hr	iPlinear.		
1220	18.90'		APter	1:20. U	ould take	219hr	to reach E	D% reco	very at this	rete.	
			w:u		in 24hr.	to c	ollect samp	e, if r	ecovered,		-
0930	18.65	Not	ecovered	to 80	1. Wi	I not s	ga ample.	Discussed	of office.	will coll	ect
										Sample	
					Sam	ple Well					
Time:	1015	_	1	Sample ID:		Z-18		_		8.65' feet b	elow TC
Comments	s: Mu	0-3 DT		5.35'					to limited v	olome.	
		Bubble	s forme	is when	158 added	. //o/	e after c	learing			
Well Cond	lition:	Guod									

GROUNDWATER MONITORING WELL SAMPLING FIELD DATA SHEET

Project N	ame/No.:			Former Fx	xon Station	2X103 Q				hugurst 31 1 arch 28, 2 01	17
Sample N		P2-20	,						Sample Location:	PZ-28	-
Samplers		1		an Abbey (W	eber. Haves.	& Associa	ates)		Recorded by: SA		
	uipment: _Bailer: Disp _Whaler # _ Peristaltic F	posable or Ad	crylic						Sample Equipmen Dispos Whale Perista	able Bailer	2
	Requested		avenders by E	PA Method 8260	B				Number and Ty 3-x 40 mL VOA's (HCL pr		Use
	by EPA Method 8						<u>е</u>		2 x 1 L Amber		·
Well Num		PZ-2	Ð								
Depth to Well Dept	Water:	1654	TOC BGS or TO	DC depth - depth t	to water)	Pump Int Pump Flo	ake Depth: w Rate:	~ (00	feet mL/min		
Lab:	Torrent							Transpor	tation: Courie	er	
Time (24 hr.)	Depth to Water (TOC)	Drawdown (feet)	Volume Purged (mL)	Temperature (°C)	Conductivity (ms/cm)	D.O. (ppm)	рН	ORP (mV)	Turbidity: Color	, Fines 🔤 Pa	/licropur Paramate Stabilize
1145	16.54		0	25.2	ાવઉપ	ઇ ગપ	7.75	151.7	Yellowish, sem	ideus	
1146			100	21.3	1086	7.27	7.83	152.1	Charolate milli	t l	
				1 (
			Vei	untered.							
	19.291	immediate	ly a	for su	ple						
			500 ml	after y	ist is e	mptied.					
11:00	(9.06'	after	~ 15min	, Should	recover	ta 17.19	t'in r	2.3 hr	5		
०९५०	18.61'	Not F	ecovered	t= 80%.	Will n	of recou	er withm	Buhn.	N= Sample	í	
					Spake				Sample enginery		
	I	<u> </u>			<u>Sa</u> m	ple Well	· · · · · · · · · · · · · · · · · · ·	I			
Time	: 1030	_		Sample ID:	PZ	2-78	me. A	-	Depth: 1661	feet below	w TC
Comment	s: Only	y Two	vorts f	filled due	to limi	ted volu	me. A	rs Bubbl	es formed.		
							<u> </u>				
Well Cond	dition: G	ooc									

Image: Sale of the second information, including and in				<u>GEOLOGIC LOG</u> Piezometer						JOB NO.: 2X103.GDATE: July 28, 2017CLIENT: Golden Empire PropertiesWell #LOCATION:3033 35th Avenue, Oakland, CA PZ-1A LOGGED BY: J. Chaney, PG #8452SheetDRILLER: Environmental Control Associates (Jeff Edmond)SheetDRILL METHOD: Hydraulic Driven Dual Wall Probes1 of 1			
Constraints and a second s	, Depth (feet)	Sample Interval	Blow Counts	(ppm)	Groundwater Zones, & Well Construction	Groundwater Depth	Piezometerl Construction 2.25" borehole	3/4" Casing Page 1			(Lithologic name, color, moisture, density/consistency, grain size%,		
	- 11 $--$ 12 $--$ 12 $--$ 13 $--$ 13 $--$ 14 $--$ 14 $--$ 15 $--$ 16 $--$ 16 $--$ 17 $--$ 18 $--$ 19 $--$ 19 $-$		No Blow Counts - Hydraulic Driven	0 0.3	Surface to 5 feet = 6-inches Portland Cement 0.5 ' to 8.5' bgs Hydrated Bentonite 6.5 to 8.5' bgs #3 RMC Sand 8.5' to 12.5' bgs Pre-Pack 0.010-inch Screen					SC SW-SM SC SW-SM	 60-70% fine to medium sand, 20-30% silt fines, no oc coloration. Gradational contact. Clayey SAND, dark yellowish brown (10YR 4/6), dry t appears medium dense, slightly plastic, 60-70% fine fisand, trace coarse sand, trace localized fine gravel, 3 fines, no odor, no discoloration. Gradational contact. Well Graded SAND w/ Silt/Clay & Gravel, dominant brown (2.5Y 4/4), dry to damp, appears medium dens fine to medium sand, up to 10% coarse sand, 20-25% medium subangular gravels, 15-20% clay/silt fines, tr no apparent discoloration. Gradational contact Sandy CLAY w/ Gravel, dark yellowish brown (10YR slightly damp, very stiff to hard, dominantly clay fines fine to medium sand, some coarse sand, 10-15% fine to subrounded gravels, low hydrocarbon odor, no appcoloration. Gradational contact. 	dor, no dis- o damp, to medium 30-40% clay ly olive e, 40-50% o fine to ace odor, 4/4) , dry to s, 25-30% subangular parent dis- ly olive e, 40-50% o fine to	

	<u>GEOLOG</u> Piezor		JOB NO.: 2X103.GDATE: July 28, 2017CLIENT: Golden Empire PropertiesWell #LOCATION:3033 35th Avenue, Oakland, CAPZ-18LOGGED BY: J. Chaney, PG #8452SheetDRILLER: Environmental Control Associates (Jeff Edmond)SheetDRILL METHOD: Hydraulic Driven Dual Wall Probes1 of 1			
, Depth (feet) Sample Interval Blow Counts PID Reading	Coring Information, Groundwater Zones, & Well Construction Details	STA STAD LITH	ologic ttern symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)		
No Blow Counts - 13 - 14 - 13 - 17 - 13 - 17 - 13 - 18 - 18 - 18 - 18 - 18 - 18 - 18 - 18	Borehole diameter from ground surface to 5 feet = 6-inches		SW-SM			
	Hydrated Bentonite 14 to 16' bgs 000 #3 RMC Sand 16' to 20' bgs		SC SW-SM	Sandy CLAY, 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 hydro- carbon odor, no discoloration. Gradational contact. Well Graded SAND w/ Silt/Clay & Gravel, 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 hydro- carbon odor, no apparent discoloration. - Gradational contact.		
	0.010-inch Screen 17' to 20' bgs		SC	Sandy CLAY , 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.		

WH2		<u>GEOLOGIC LOG</u> Piezometer						JOB NO.: 2X103.GDATE: July 28, 2017CLIENT: Golden Empire PropertiesWell #LOCATION:3033 35th Avenue, Oakland, CA PZ-2A LOGGED BY: J. Chaney, PG #8452SheetDRILLER: Environmental Control Associates (Jeff Edmond)SheetDRILL METHOD: Hydraulic Driven Dual Wall Probes1 of 1				
Depth (feet) Sample Interval	Blow Counts PID Reading	(mqq	Coring Information, Groundwater Zones, & Well Construction Details	Groundwater Depth	Piezometerl Construction 2.25" borehole 3/4" Casing	Litho Pati	logic tern	USCS symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)			
	No Blow Counts - Hydraulic Driven		Portland Cement 0.5 ' to 8.5' bgs Hydrated Bentonite 6.5 to 8.5' bgs #3 RMC Sand 8.5' to 12.5' bgs Pre-Pack 0.010-inch Screen 9.5' to 12.5' bgs					SW-SM	Concrete driveway (~4 inches thick) Silty SAND, dark brown (10YR 3/3), dry to damp, app um dense, 60-70% fine to medium sand, 20-30% silt f odor, no discoloration. Gradational contact. Clayey SAND, dark yellowish brown (10YR 4/6), damp appears medium dense, slightly plastic, 60-70% fine t sand, trace coarse sand, trace localized fine gravel, 3 clay fines, no odor, no discoloration. - Gradational contact. Well Graded SAND w/ Silt/Clay & Gravel, dominanth brown (2.5Y 4/4), dry to slightly damp, appears mediu 40-50% fine to medium sand, up to 10% coarse sand, fine to medium subangular gravels, 15-20% clay/silt find odor, no apparent discoloration.	ines, no o to moist, o medium 10-40% ly olive m dense, 20-25%		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$									AJOB\2X103\FIGURES\LOGS\PZ-2A.CN	V		

WHA				<u>GEOLOG</u> Piezor			3	JOB NO.: 2X103.GDATE: July 28, 2017CLIENT: Golden Empire PropertiesWell #LOCATION:3033 35th Avenue, Oakland, CA PZ-2B LOGGED BY: J. Chaney, PG #8452SheetDRILLER: Environmental Control Associates (Jeff Edmond)SheetDRILL METHOD: Hydraulic Driven Dual Wall Probes1 of 1				
Depth (feet)	Sample Interval	Blow Counts	PID Reading (ppm)	Coring Information, Groundwater Zones, & Well Construction Details	Groundwater Depth	Piezometerl Construction 2.25" borehole 3/4" Casing	Lith Pa	ologic ttern	USCS symbol	SOIL DESCRIPTION & CLASSIFICATION (Lithologic name, color, moisture, density/consistency, grain size%, other descriptors, HC odor.)		
				Borehole diameter from ground surface to 5 feet = 6-inches					SM	Concrete driveway (~4 inches thick) <u>Silty SAND</u> , dark brown (10YR 3/3), dry , appears me 60-70% fine to medium sand, 20-30% silt fines, no od coloration. Gradational contact. <u>Clayey SAND</u> , dark yellowish brown (10YR 4/6), damp appears medium dense, slightly plastic, 60-70% fine t sand, trace coarse sand, trace localized fine gravel, 3 fines, no odor, no discoloration. - Gradational contact.	or, no dis- o to moist, o medium :0-40% clay	
		Hydraulic Driven	0	Portland Cement 0.5 ' to 14' bgs					SW-SM	 Well Graded SAND w/ Silt/Clay & Gravel, dominantly brown (2.5Y 4/4), dry to slightly damp, appears mediu 40-50% fine to medium sand, up to 10% coarse sand, fine to medium subangular gravels, 15-20% clay/silt findor, no apparent discoloration. Gradational contact 	m dense, 20-25%	
- 10 - - 11 - - 12 - - 12 - - 13 - - 13 - - 14 -		No Blow Counts -	0						SC	Sandy CLAY w/ Gravel, dark yellowish brown (10YR - slightly damp, very stiff to hard, dominantly clay fines fine to medium sand, some coarse sand, 10-15% fine to subrounded gravels, no odor, no discoloration. Gr contact. Well Graded SAND w/ Silt/Clay & Gravel, dominantly brown (2.5Y 4/4), dry to damp, appears medium dense fine to medium sand, up to 10% coarse sand, 20-25% medium subangular gravels, 15-20% clay/silt fines, no discoloration. - Gradational contact.	, 25-30% subangular adational ly olive e, 40-50% fine to	
 _ 15 _ _ 16 _			0	Hydrated Bentonite 14 to 16' bgs ———		►			sc	Sandy CLAY, dark yellowish brown (10YR 4/4), damp very stiff to hard, dominantly clay fines, 30-40% fine t sand, trace coarse sand, trace fine subrounded grave hydrocarbon odor, no discoloration. Gradational conta Well Graded SAND w/ Silt/Clay & Gravel, dominant	o medium Is, strong act. Iy olive	
- 17 - - 17 - - 18 -			0	#3 RMC Sand 16' to 20' bgs Pre-Pack 0.010-inch Screen 17' to 20' bgs					SW-SM	brown (2.5Y 4/4), dry to damp, appears medium dense fine to medium sand, up to 10% coarse sand, 20-25% medium subangular gravels, 15-20% clay/silt fines, no discoloration. - Gradational contact. Sandy CLAY, dark yellowish brown (10YR 4/4), damp	fine to o odor, no , very stiff	
- 19 - - 20 -			0						sc	to hard, dominantly clay fines, 30-40% fine to medium trace coarse sand, trace fine subrounded gravels, mo strong hydrocarbon odor, no discoloration.	i sand, derate to	

