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By Alameda County Environmental Health at 2:44 pm, Feb 24, 2014

01 -12- 14 Perjury Statement for Well Abandonment Report former Kawahara Nursery Page 1 of 1

January 12, 2014

Teena Le Hazardous Materials Specialist ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 Phone (510) 567-6772 teena.le@acgov.org FAX (510) 337-9335

SUBJECT: Responsible Party Perjury Statement for Alameda County FTP Website Technical Report Submittal for Reporting of Final Well Abandonment Report date January 10, 2014 (Revised w/Well Permit)

To Alameda County Environmental Health,

"I declare under penalty of perjury that the information and or recommendations contained in the technical document designated above is true and correct to the best of my knowlledge."

wahara

John Kawahara Kawahara Nursery, Inc. 689 Burnett Ave. Morgan Hill, CA 95037

408 640-4289

01-10-14 Report on Groundwater Monitor Well Abandonment for the former Kawahara Nursery Page 1 of 3

Franklin J. Goldman, CHG Environmental Forensics & Hydrogeological Consulting PO Box 1193, Meadow Vista, CA 95722 Phone: (916) 676-2677 fjgoldmanchg@yahoo.com



January 10, 2014

Teena Le Hazardous Materials Specialist ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Phone (510) 567-6772 <u>teena.le@acgov.org</u> FAX (510) 337-9335

## SUBJECT: Final Report Groundwater Monitor Well Abandonment (Revised w/Well Permit) FOR THE FORMER Kawahara Nursery, 16550 Ashland Ave., San Lorenzo, CA

Ms. Le,

On December 24, 2013, the last remaining four (4) groundwater monitor wells were abandoned on site. Alameda County Public Works inspector, Steve Miller was on site to observe the entire well abandonment process (See Attachment 1 for ACPWA Approved Well Permit).

The following is a technical report which outlines the procedures used to abandon the groundwater monitor wells onsite. The four (4) groundwater monitor wells were designated as MW-3, MW-4, MW-5 and MW-6.

A well permit application was submitted to the Alameda County Public Works Agency along with well location maps and well construction details (See Figure 1 for map of well locations) & (See Attachment 2 for Well Construction Details).

Groundwater monitor well MW-3 was overdrilled out to the top of the screen and sand pack, after pressure grouting, to assure that the underlying earth materials are sealed from surface infiltration. This was performed as an extra precaution as MW-3 was located next to an existing water supply well. MW-4, MW-5 and MW-6 were pressure grouted.

The four (4), two inch diameter PVC casing wells were abandoned, as required by County permit requirements, by a C-57 licensed drilling contractor and observed by a State Certified Hydrogeologist. The following summarizes the activities completed.

Kindest Regards,

Franklin J. Goldman Principal Hydrogeologist #466



### **REPORT OF WELL ABANDONMENT PROCEDURES TO BE COMPLETED**

After receiving well abandonment permits from the Alameda County Public Works Agency (ACPWA) and after notifying the ACPWA grout inspector, and prior to drilling, underground service alert was be notified after marking the site in white paint for the drilling locations.

The activities were performed by the C-57 licensed driller were observed and documented by a State Certified Hydrogeologist.

Prior to drilling and or pressure grouting and or tremmie grouting in the open hole, the depth to groundwater was sounded to verify that the water levels in the wells were consistent with past gaugings. The total length of each well's casing was also measured in the well to verify that there were no obstructions that could interfere with grouting or pressure grouting. All casing lengths were verified to be the same as what was recorded during their original construction.

Prior to operations, each well box was broken out and the associated grout was removed to a depth of approximately three to five feet bgs to sufficiently expose the top of the casing.

A Type I/II cement grout was then mixed, at the surface, in a 55 gallon drum with a mechanical mixer using 6 gallons of water per 94 pounds of cement.

Grouting was performed through the casing by initially inserting a 1/2" diameter tremmie pipe to the inside of the bottom of the two inch diameter casings to make sure there were no obstructions.

Grout was then pumped into the inside of the casing until the casing, associated annular space, sand pack, and formation can no longer accept any more grout.

Next, groundwater monitor wells MW-4, MW-5, and MW-6 were pressure grouted through the casing. A two inch diameter threaded coupling was attached to the top of the casing to fit the nozzle for the pressure gauge and pump onto the 2 inch diameter casing to inject air into the inside of the casing on top of the liquid grout in an effort to drive the grout further into the sand pack and formation at a sustained pressure of >25 psi for 5 minutes.

After the coupling was removed, the depth to the top of the grout was tagged.

When more grout was necessary to fill up the hole, grout was added to the top of the existing grout and the coupling with the pressure gauge and pump were reattached to inject air into the casing again at >25 psi for 5 minutes until the grout had been fully injected into the sand pack and formation.

This process was repeated until all the grout that could be accommodated at 25 psi for 5 minutes had been injected into the casing to the extent that the hole was completely filled with grout (See Attachment 3 for Field Photos).

Each casing was then cut off to a depth of between 2 ½ and 3 feet bgs prior to completing the hole to the surface with grout.

The grout was then left to settle, after which time, each abandoned borehole was sealed to the surface with an AC surface cover to match the surrounding parking area.

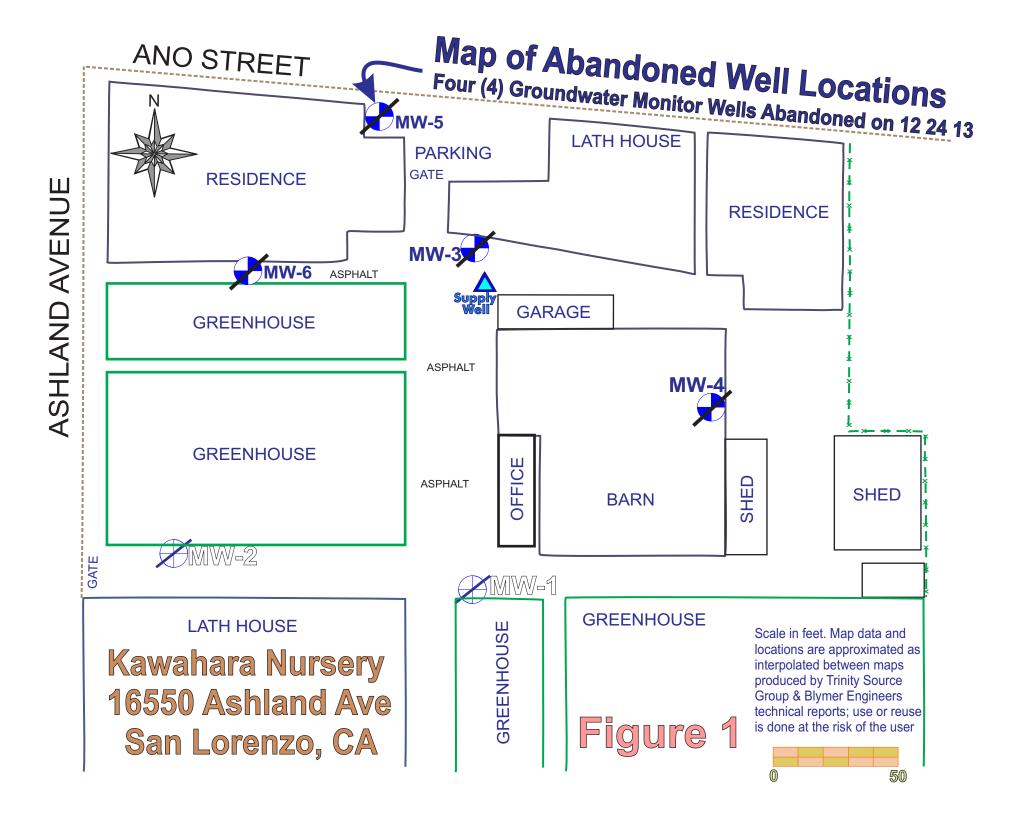
MW-3 was drilled out to the top of the sand pack. The hollow stem auger was used to drill around the outside of the casing after pressure grouting is completed. The remaining open borehole was then tremmie grouted from the top of the grout to the surface after the casing had been pulled, intact, from the hole.

About ½ of a drum was filled with well materials generated during abandonment activities from MW-3. It used on site as no significant hydrocarbon contamination was observed.

#### LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analyses, conclusions and recommendations

contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change. The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. All users of this report recognize that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein, is done so at the sole risk of the said user. Note this technical report supersedes any and all previous drafts provided to the client for review.



Attachment 1

**County Approved Well Abandonment Permit** 

## Alameda County Public Works Agency - Water Resources Well Permit

PUBLIC	399 Elmhurst Street Hayward, CA 94544-13 Telephone: (510)670-6633 Fax:(5					
Application Approved	l on: 12/17/2013 By jamesy	Permit Numbers: W2013-1009 to W2013-1012 Permits Valid from 12/19/2013 to 12/19/2013				
Application Id:	1386806200332	City of Project Site:San Lorenzo				
Site Location: Project Start Date: Assigned Inspector:	16550 Ashland Avenue 12/19/2013 Contact Steve Miller at (510) 670-5517 or steve	Completion Date:12/19/2013 evem@acpwa.org				
Applicant:	Goldman & Assoc Frank Goldman	<b>Phone:</b> 916-676-2677				
Property Owner:	PO Box 1193, Meadow Vists, CA 95722 John Kawahara	<b>Phone:</b> 408-640-4289				
Client:	689 Burnett Ave, Morgan Hill, CA 95037 ** same as Property Owner **					
	Receipt Number: WR2013-0481 Payer Name : Goldman & Assoc.	<b>Total Due: Total Amount Paid:</b> Paid By: CHECK	\$1588.00 <u>\$1588.00</u> <b>PAID IN FULL</b>			

#### **Works Requesting Permits:**

Well Destruction-Monitoring - 4 Wells Driller: Clear Heart - Lic #: 780357 - Method: hstem

#### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2013- 1009	12/17/2013	03/19/2014	MW3	6.00 in.	2.00 in.	6.00 ft	19.50 ft	3S/2W7H	No Records	No Records
W2013- 1010	12/17/2013	03/19/2014	MW4	8.00 in.	2.00 in.	11.00 ft	20.50 ft	3S/2W7H	No Records	No Records
W2013- 1011	12/17/2013	03/19/2014	MW5	8.00 in.	2.00 in.	11.00 ft	20.50 ft	3S/2W7H	No Records	No Records
W2013- 1012	12/17/2013	03/19/2014	MW6	8.00 in.	2.00 in.	4.00 ft	17.50 ft	3S/2W7H	No Records	No Records

#### **Specific Work Permit Conditions**

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

#### Work Total: \$1588.00

## Alameda County Public Works Agency - Water Resources Well Permit

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

6. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

8. Remove the Christy box or similar structure.

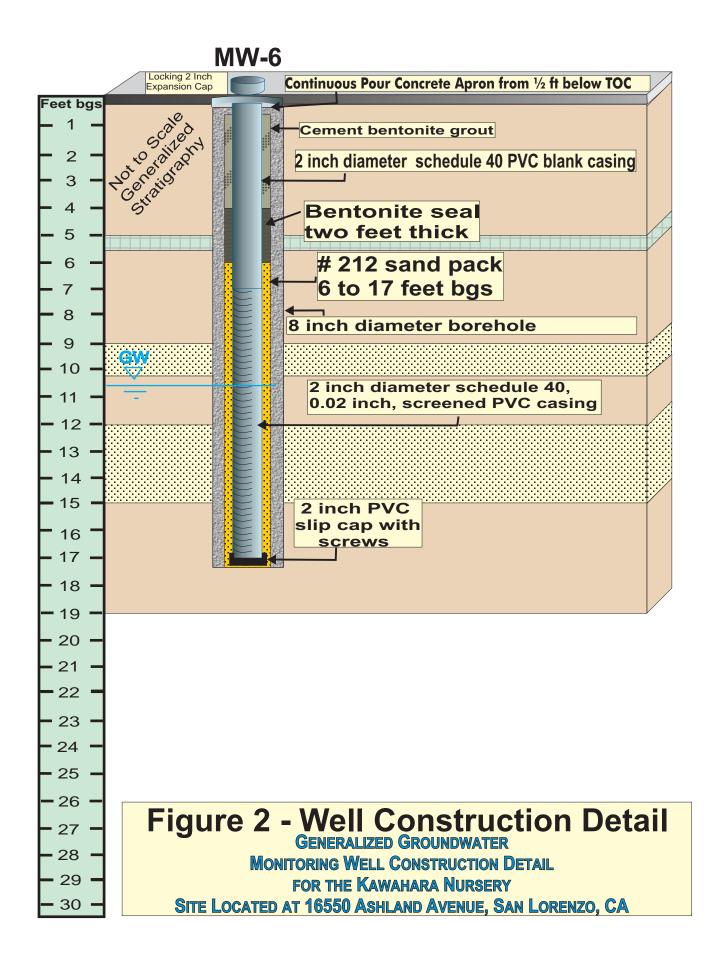
Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

9. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

Attachment 2

**Well Construction Details** 

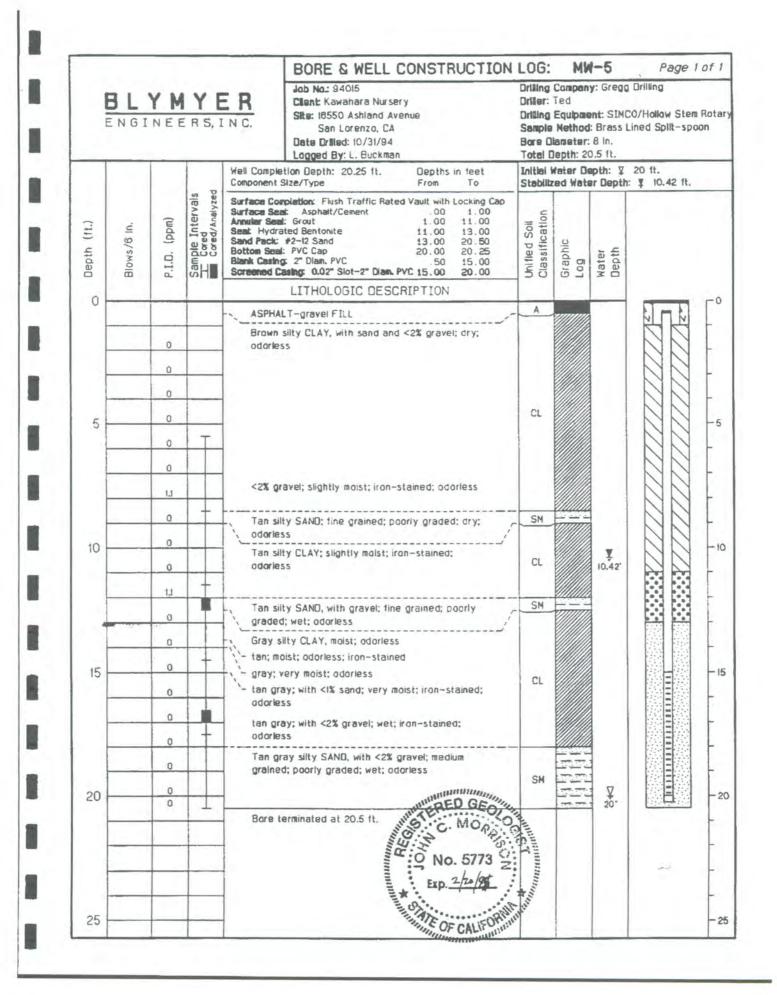


EXPLORATORY BORING LOG										
DRILL COMPANY: Clear Hea	LOGGED BY: Frank Goldman									
DEPTH TO GROUNDWATER:	BORING DIA	METER	: 8″	DRILLI	NG METHO	D: HSA				
LITHOLOGIC DES	CRIPTION	SAMPLE INTERVALS	TIMED	DEPTH in feet bgs	WATER	WERUCTION CONSTRUCTION	USCS SYMBOLS			
Silty clay, dark brown	, soft, moist;	×	0 ppm 12:05 pm				CL			
rootlets, no odor. Sau Groundwater in well casing 10.55' at 2:00 pm 10.52' at 2:45 pm Groundwater in augers at 10.70' at 12:45 pm GW	mple run 5-6 ½' le run 9-10 ½'	×	0 ppm 12:10 pm 0 ppm	- 7 - - 8 - - 9 - 10 - -11 -						
Silty clay with sand, of to stiff, moist; faint hy Groundwater 1st encountered at 15.65' at 10:00 am Strong hyd GW Sam	ive brown, firm drocarbon odo rocarbon odor ple run 14-15 ½	or.		-12- -13- -14- -15- -16-			CL/SM			
No hyd Sai	rocarbon odor mple run 17-18 ½		0 ppm 12:20 pm 0 ppm	-17- -18-						
End at 18 <sup>1</sup> / <sub>2</sub> Monitor well constructed 7' blan 1' sand over TOC, 2' bentonite, 4'	k pvc, 10' 0.02" slots,	S		-19- -20-						
BORING NO. MW-6 DATE: 09 18 12	Site Located a		awahara P 50 Ashlani		_	orenzo, CA				

BL	YN	Y	ER	Job #: 93071 Log of Bore No. Client: Kawahara Nursery Site: San Leandro, CA Driller: Ted Trevor Drilling Contractor: Gregg D Logged by: Laurie Buckmar	Drilling N	Date Drilled: 6/10/93 Drilling Equipment:Hollow Stem Aug Bore diameter: 6" Total depth: 19.5 feet Initial water level: ▼ 13 feet Stabilized water level: ▼ 10.46 fe				
Depth (F1.)	Blows/6 In.	P.I.D. (ppm)	Samples	Surface Completion:       Flush Mount w/locking cap         Blank Casing:       2" Diam./PVC       1.0         Slotted Casing:       0.02" Slot 2" Diam./PVC       9.5       1         Filter Pack:       Silica Sand       8.0       1         Seal:       Hydrated Bentonite       6.0       1.0         Annular Seal:       Cement Grout       1.0       1.0         Bottom Seal:       19.5       2	9.5 9.5 9.5 9.5 8.0 6.0 21.0	Unified Soil Clasification	Graphic Log	Water Depth		
0	-	$\square$		DESCRIPTION		_				
				0.0-1.0' Gravel fill			VI	1	Read water	
		0		1.0-6.0' Clay, silty, brown-black, moist.			VI	1	111	
		$\square$				CL	VI	1		
	-	$\square$					VI	1		
5	-		T				1	1	111	
	-	0		6.0-7.0' Gravel, sandy, tan, poorly graded, dry.	H		11.12		111	
1	-		-		-	GP				
1		$\square$		7.0-10.0' Clay, silty, sandy, brown, dry.			11	1		
							11	1		
10		0	_	10.0-13.0' Clay, plastic, tan-grey, dry.		CL	4	10.46		
	-	$\left  \right $					11			
		$\vdash$	T		and an		11	1		
		2,300		12.0-15.0' Gravel, silty-sandy, tan, wet, strong	i kand		11.40	13.0		
		$\vdash$	-	The distribution of a class		GP				
15		$\vdash$		15.0-17.0' Clay, plastic, tan, moist.	-	_				
		1,900	-		1		11			
			-	17.0-19.5' Clay, silty, tan, moist		CL	4			
		$\vdash$					1/			
		2,100					1		_	
20	-			Bottom of bore 19.5 feet						
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		$\square$								
25										
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				E	BORE & WELL C	CONSTRUCTION	LOG:	MM	1-4	Pag	e I of
1	BL ENGI	Y M	<b>Y E</b> R S, I	R S	ob No.: 84015 Nent Kawahara Nurser Site: 18550 Ashland Ave San Lorenzo, CA Date Drilled: 10/31/94 Logged By: L. Buckman	enue	Oriller: Orilling Sample Bore O	Ted Equipme	nt: SIM Brass 8 in.	g Brilling CO/Hollow S Lined Split-	
				Well Completion Component Size	Depth: 20.25 ft.	Depths in feet From To				18.5 1t. 12.34	11.
Depth (ft.)	Blows/6 In.	P.I.D. (ppm)	Sample Intervals T Cored Cored/Analyzed	Surface Comple Surface Seal: Annular Seal: 6 Seal: Hydrated Sand Pack: #2- Bottom Seal: PI Blank Casing: 2	tion: Flush Traffic Rater Asphalt/Cement frout Bentonite -12 Sand VC Cap	d Vault with Locking Cap .00 1,00 1.00 11.00 11.00 13,00 13.00 20.50 20.00 20.25 .50 15.00 VC 15.00 20.00	Unified Soll Classification		Water Depth		
0				L	ITHOLOGIC DESC	RIPTION					(
Ň				ASPHALT-	gravel FILL		A				
		0		Black silty	CLAY, with sand; dry;	odorless					71
		0									11
											11
		0.3					CL				11
5	-	0		Graus and					7 -		
		a	-T-	Drown san	Brown sandy CLAY, with gravel; dry; odoriess						1 -
		0.2			-				3 -		
	_	0		Brown silty	SM	<u></u>			1-1		
		0.2	-		0				11		
10		0		Brown silty CLAY, with <2% gravel; moist; organic; odorless							
10		0		0001633	CL				3 -1		
		0	+				CM				
					y SAND, with gravel; me ided; wet; odorless	edium grained;	CL		Ţ		-
		0		Brown silty	CLAY, with <2% grave	el; moist; organic;	SM		12.34		<b>1</b> -
		0.3		odorless	//					-	
15		0	H	- graded; mo	grained; poorly				-	-1	
		0		1	Brawn silty CLAY; moist; iron-stained; odoriess gray; very moist; odorless						
	_	0		- gray; very							
		0									
		0		Gray silty	SAND, with <2% clay a	and <2% oravel:			18.5		
20		0			dium grained; poorty gr		ML		COST N.		<i>Щ</i> Г.
20					CLAY; very moist; iron	-stained: odorless	RED	500	310		
					nated at 20.5 ft.	inder.	C. M	OP	C. IIIIIIII		F
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Attachment 3

Field Photos of Well Abandonment Activities



**Mobilization over MW-3** 



Casing Pulled at MW-3



**Tremmie Grout at MW-3** 



Pressure Grout with Threaded Coupling at MW-4



Pressure Grout at 26 PSI for 5 minutes at MW-4



**Pressure Grout at MW-6** 



**Completed Well Abandonment at MW-5**