

November 3, 2011

Mr. Jasbinder and Mrs. Gulbinder Grewel  
R&H Auto Repair  
5315 San Pablo Avenue  
Oakland, CA 94612

**RECEIVED**

*10:02 am, Nov 09, 2011*

Alameda County  
Environmental Health

Subject: Documentation of Destruction of three Groundwater Monitoring Wells,  
5315 San Pablo Avenue, Oakland, California

Dear Mr. and Mrs. Grewel:

### **INTRODUCTION AND WORK SUMMARY**

Stellar Environmental Solutions, Inc. (Stellar Environmental) is pleased to provide you with this report documenting the closure of three monitoring wells at the above referenced site. The three groundwater monitoring wells were installed in 2010 to monitor petroleum contaminant releases from three former underground storage tanks operated on onsite by the former Shell Service Station (Case # RO0002965). The well destruction is part of the final work required by the Alameda County Department of Environmental Health (ACEH) in order for that agency to grant case closure.

Attached Figure 1 shows the site location map and Figure 2 shows the location of the closed monitoring wells. Photodocumentation of the field activity is contained in Attachment A.

Stellar Environmental's scope of work for this closure activity included:

- Site reconnaissance to locate wells;
- Procurement of a well destruction Permit from Alameda County Public Works (ACPW);
- Scheduling and coordinating subcontractor and ACPW inspection;
- Removing the well boxes and concrete collars at all three site wells;
- Overdrill each well using 4-inch diameter solid flight auger;
- Tremie grout each well bore from the boring bottom to surface with cement slurry grout;

- Disposal of metal well boxes, broken blocks of well collar concrete, PVC casing and used tremie-pipe.
- Submitted required Well Completion Reports for well destructions to the California Department of Water Resources (DWR); and
- Preparation of this Well Closure Documentation report.

### MONITORING WELL DESCRIPTIONS

Information on the wells to be destroyed was obtained from the Stellar Environmental document "Well Installation Report and Preferential Pathway Study, dated June 15, 2010. The three site monitoring wells that were destroyed are summarized in Table 1 below.

**Table 1**  
**Descriptions of Closed Monitoring Wells**  
**5315 San Pablo Avenue**  
**Oakland, CA**

Site/Well ID	Well Casing	Well Depth (feet bgs)
MW-1	1-inch PVC	25
MW-2	1-inch PVC	25
MW-5	1-inch PVC	25

Note: bgs = below ground surface

### WELL CLOSURE ACTIVITIES SUMMARY

Prior to well closure, Stellar Environmental obtained a well closure permit from ACPW, a copy of which is included as Attachment B, and scheduled the required ACPW onsite inspection. Well closure field activities were conducted on October 17, 2011, by Penecore Drilling (CA C-57 license No. 906899), a California licensed well driller, as required by ACPW, under the oversight of Stellar Environmental. The well closure field activity was inspected by Ms. Vicki Hamlin of ACPW on September 17, 2011.

The flush-mounted well boxes were removed from all the wells, and then each well was drilled out using four-inch diameter solid flight augers. After the augers were withdrawn from each well bore, the cement grout mixing was then initiated. The grout slurry was introduced by placing a

Mr. and Mrs. Jasbinder and Gulbinder Grewel,  
5315 San Pablo Avenue  
Oakland, California  
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tremie pipe to the bottom of the well and then grout was poured through the pipe, filling the well from the bottom up. As the grouting proceeded close to the ground surface, the grout discharge rate was slowed to allow time for equilibration and to minimize the potential for grout-laden water to discharge to the ground surface. After the grout was finally brought to surface, it was allowed to settle and subsequently topped off as necessary. Following the grouting, the surface restoration at each site was completed with concrete to match the local surface.

On behalf of the client, Stellar Environmental prepared and submitted to ACPW and DWR, the required DWR Well Completion Report for each of the well destructions. Copies of the DWR reports are included in Attachment C.

This report was uploaded to both the State Water Board's GeoTracker system (T0619704141) and the Alameda County Environmental Health Department's Electronic Upload ftp system.

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

If you have any questions regarding this report, please contact us at (510) 644-3123.

Sincerely,



Steve Bittman, R.E.A  
Project Manager

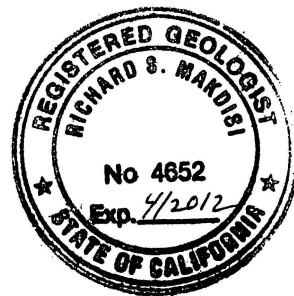


Richard S. Makdisi, R.G., R.E.A.,  
Principal Geochemist & President



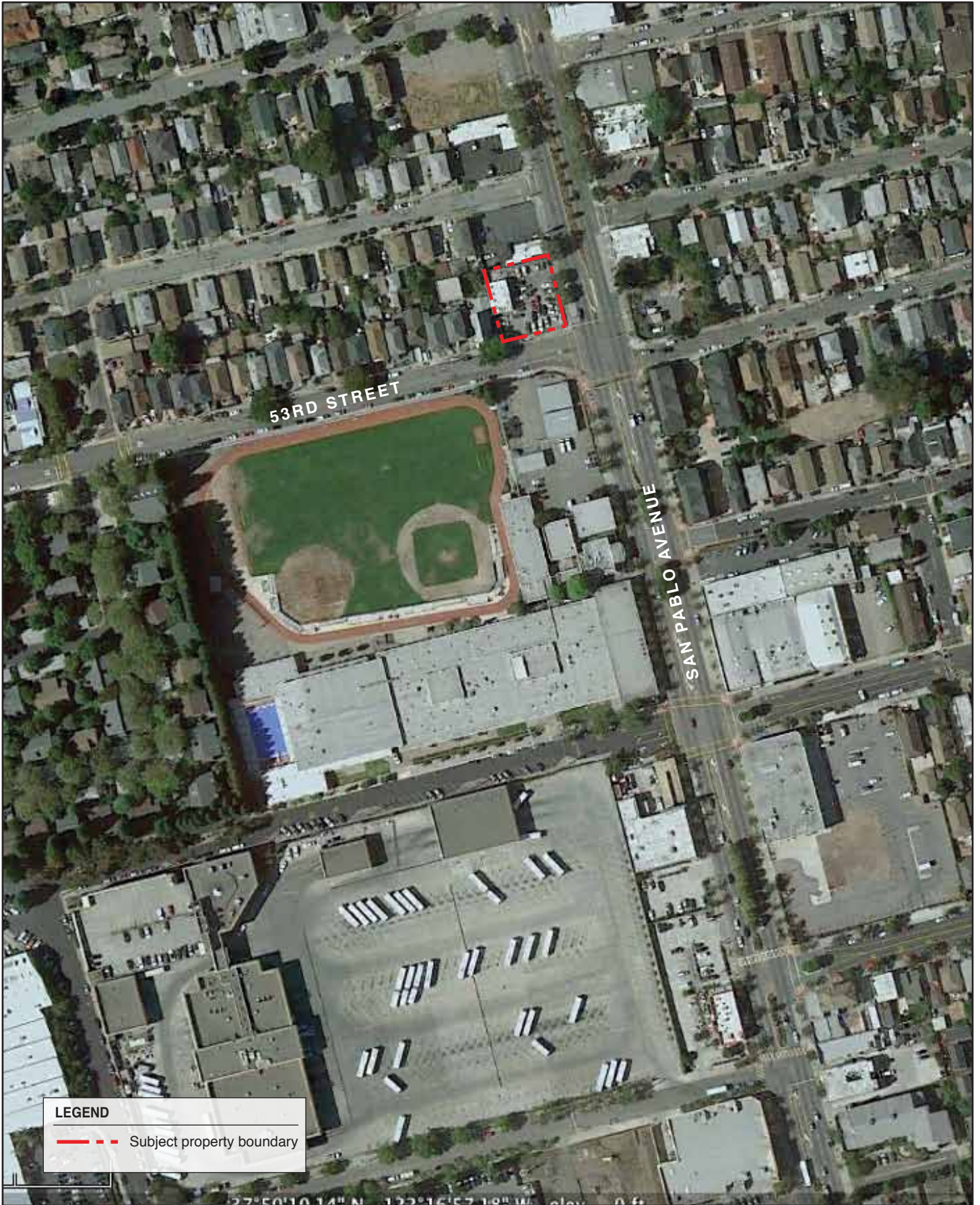
Jasbinder Grewel  
Responsible Party

cc: Barbara Jakub, ACEH



## **FIGURES**

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**LEGEND**

--- Subject property boundary



**SUBJECT PROPERTY LOCATION**

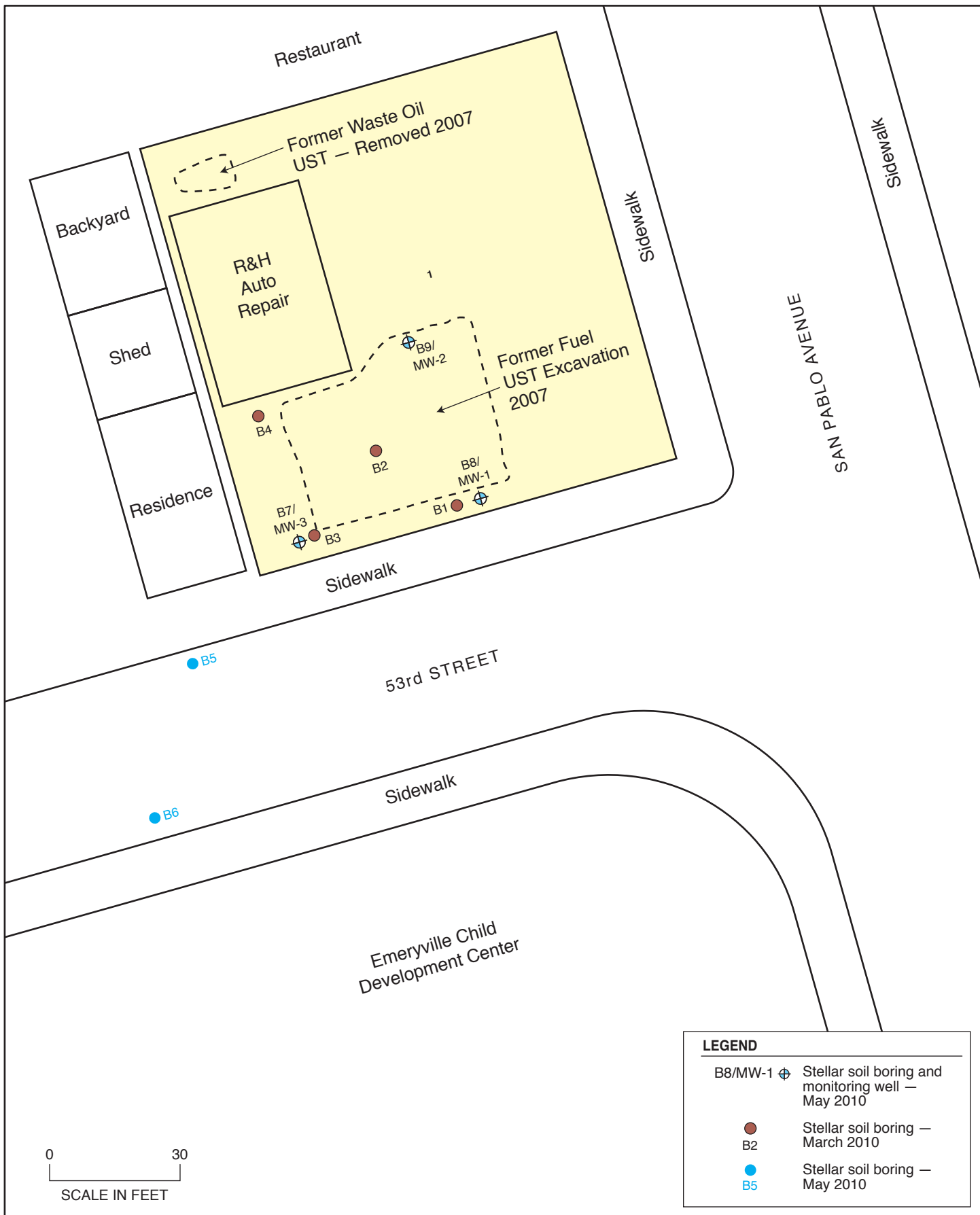
5315 San Pablo Ave.  
Oakland, CA

By: MJC

NOVEMBER 2011

**Figure 1**





LEGEND	
B8/MW-1	⊕ Stellar soil boring and monitoring well — May 2010
B2	● Stellar soil boring — March 2010
B5	● Stellar soil boring — May 2010



### MONITORING WELL LOCATIONS

5315 San Pablo Avenue  
Oakland, CA

By: MJC

NOVEMBER 2011

Figure 2



# **ATTACHMENT A**

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## **Photodocumentation**



Subject: Removing MW-3 well box prior to drilling out the well casing

Site: 5315 San Pablo Avenue, Oakland, CA

Date Taken: September 17, 2011

Project No.: SES 2011-35

Photographer: Steve Bittman

Photo No.: 01



Subject: Drilling out the PVC well casing of well MW-3

Site: 5315 San Pablo Avenue, Oakland, CA

Date Taken: September 17, 2011

Project No.: SES 2011-35

Photographer: Steve Bittman

Photo No.: 02





Subject: Installed tremie pipe in over-drilled bore of well MW-3

Site: 5315 San Pablo Avenue, Oakland, CA

Date Taken: September 17, 2011

Project No.: SES 2011-35

Photographer: Steve Bittman

Photo No.: 03



Subject: Grouting MW-1 utilizing a tremie pipe

Site: 5315 San Pablo Avenue, Oakland, CA

Date Taken: September 17, 2011

Project No.: SES 2011-35

Photographer: Steve Bittman

Photo No.: 04

# **ATTACHMENT B**

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## **Well Closure Permit**

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 10/06/2011 By jamesy**

**Permit Numbers: W2011-0613 to W2011-0615**  
**Permits Valid from 10/17/2011 to 10/17/2011**

**Application Id:** 1317338169286  
**Site Location:** 5315 San Pablo Avenue

**City of Project Site:**Oakland

**Project Start Date:** NW corner San Pablo & 53rd  
10/17/2011  
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**Completion Date:**10/17/2011

**Applicant:** Stellar Environmental Solutions - Steve Bittman  
2198 Sixth Street, Suite 201, Berkeley, CA 94710

**Phone:** 510-644-3123

**Property Owner:** Kenneth Schmier  
1475 Powell Street, Emeryville, CA 94608

**Phone:** 510-652-6080

**Client:** Jim & Gulbinder Grewel  
5315 San Pablo Ave, Oakland, CA 94608

**Phone:** 510-547-7511

**Contact:** Steve Bittman

**Phone:** 510-644-3123  
**Cell:** 510-612-8751

	<b>Total Due:</b>	\$1191.00
<b>Receipt Number: WR2011-0291</b>	<b>Total Amount Paid:</b>	\$1191.00
<b>Payer Name : Stellar Environmental</b>	<b>Paid By: VISA</b>	<b>PAID IN FULL</b>

**Works Requesting Permits:**

Well Destruction-Monitoring - 3 Wells  
Driller: Penecore drilling - Lic #: 906899 - Method: over

**Work Total: \$1191.00**

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2011-0613	10/06/2011	01/15/2012	MW-1	2.50 in.	1.00 in.	15.00 ft	25.00 ft	1S/4W15R	W2010-0300	0921336
W2011-0614	10/06/2011	01/15/2012	MW-2	2.50 in.	1.00 in.	15.00 ft	25.00 ft	1S/4W15R	W2010-0301	0921337
W2011-0615	10/06/2011	01/15/2012	MW-3	2.50 in.	1.00 in.	15.00 ft	25.00 ft	1S/4W15R	W2010-0302	0921338

**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. Including permit

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

number and site map.

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 Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@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.
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## **ATTACHMENT C**

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### **DWR Well Completion Reports**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

BORING NUMBER B8/MW-1 Page 1 of 1

PROJECT R & H Auto Repair OWNER \_\_\_\_\_  
 LOCATION 5315 San Pablo Ave., Oakland, CA PROJECT NUMBER 2010-06  
 TOTAL DEPTH 25 feet BOREHOLE DIA. 3.25 in.  
 SURFACE ELEV. Approx. 40 feet WATER FIRST ENCOUNTERED 18 feet  
 DRILLING COMPANY V & S DRILLING METHOD Direct Push 7720 DT  
 DRILLER Glenn GEOLOGIST S. Bittman DATE DRILLED 5/11/10

DEPTH (feet)	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
				MW-1	
0		Asphalt 3", Baserock 3"			
0-5		GC, Gravelly clay, dark brown, dry, medium stiff			
5-10		CL, silty clay, dark brown, damp, very stiff			
10-15		Becomes grey at 8' with some oxide mottling			
15-20		CH, Softer at 15', stiff			
20-25		SM/CL, sandy silt to sandy clay, brown with red oxide staining, moist to wet, soft			
25-30		SM, Silty fine sand with clay, grey, wet, soft			
25		Bottom of bore = 25 feet			
30					

2010-06-13

Well Construction Legend:

-  1" PVC screen (0.010-in. slots)
-  Hydrated bentonite pellets
-  #2/12 Monterey Sand
-  Portland cement & water grout
-  Static groundwater
-  Groundwater encountered

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**



BORING NUMBER B9/MW-2 Page 1 of 1

PROJECT R & H Auto Repair OWNER \_\_\_\_\_  
 LOCATION 5315 San Pablo Ave., Oakland, CA PROJECT NUMBER 2010-06  
 TOTAL DEPTH 25 feet BOREHOLE DIA. 3.25 in.  
 SURFACE ELEV. Approx. 40 feet WATER FIRST ENCOUNTERED 17 feet  
 DRILLING COMPANY V & S DRILLING METHOD Direct Push 7720 DT  
 DRILLER Glenn GEOLOGIST S. Bittman DATE DRILLED 5/11/10

DEPTH (feet)	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
					MW-2
0		3-1/2" drain rock			
0-10		Compacted Class II fill			
10-15		CL, silty clay, dark brown to black, damp, stiff, no odor			
15-20		Becomes olive brown, softer at 15'			
20-25		SM, Silty sand, grey, moist to wet, medium dense			
25		Bottom of bore = 25 feet			
30					

2010-06-14

Well Construction Legend:

- 1" PVC screen (0.010-in. slots)
- Hydrated bentonite pellets
- #2/12 Monterey Sand
- Portland cement & water grout
- Static groundwater
- Groundwater encountered

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

BORING NUMBER B7/MW-3 Page 1 of 1

PROJECT R & H Auto Repair OWNER \_\_\_\_\_  
 LOCATION 5315 San Pablo Ave., Oakland, CA PROJECT NUMBER 2010-06  
 TOTAL DEPTH 25 feet BOREHOLE DIA. 3.25 in.  
 SURFACE ELEV. Approx. 40 feet WATER FIRST ENCOUNTERED 17.5 feet  
 DRILLING COMPANY V & S DRILLING METHOD Direct Push 7720 DT  
 DRILLER Glenn GEOLOGIST S. Bittman DATE DRILLED 5/11/10

DEPTH (feet)	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION	REMARKS	WELL CONSTRUCTION	
				MW-3	
0		Asphalt 3", Baserock 3"			
0 - 10		CL, silty clay, brown, damp, medium plasticity, very stiff			
10 - 14		CH, becomes grey with increasing plasticity at 10'			
14 - 17		becomes soft with oxide mottling at 14'			
17 - 21		GC, Gravelly clay with sandy silt and silty sand interbeds, brown with orange oxide stain, moist to wet, soft			
21 - 25		SM, Silty fine sand, grey, wet, 15% sub angular pebbles, dense			
25		Bottom of bore = 25 feet			
30					

2010-06-12

Well Construction Legend:

