

May 22, 2013

RECEIVED

By Alameda County Environmental Health at 3:37 pm, May 28, 2013

Project 4096114864 03

Ms. Karel Detterman
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Well Abandonment Report
Alameda Police Department – Fuel Leak Case No. RO0003024 and
Geo Tracker Global ID T0600100045
1555 Oak Street
Alameda, California

Dear Ms. Detterman:

AMEC Environment & Infrastructure, Inc. (AMEC) is providing the Well Abandonment Report for your review. This report was prepared to fulfill the requirements of the Alameda County Department of Environmental Health request, dated March 4, 2013.

I declare, under penalty of perjury, that the information and/or recommendations contained in the work plan are true and correct to the best of my knowledge.

Sincerely yours,



Jesse Barajas
City of Alameda
Public Works Department

AMEC Environment & Infrastructure, Inc.
1465 North McDowell Boulevard, Suite 200
Petaluma, California 94954
USA
Tel (707) 793-3800
Fax (707) 793-3900
amec.com



May 23, 2013

Project 4096114864.03

Mr. Karel Detterman
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Well Abandonment Report

Alameda Police Department – Fuel Leak Case No. RO0003024 and
Geo Tracker Global ID T0600100045
1555 Oak Street, Alameda, California

Dear Ms. Detterman:

AMEC Environment & Infrastructure, Inc. (AMEC), on behalf of the City of Alameda Public Works Department (the City) is pleased to submit this report detailing the procedures of the well abandonment activities performed at the Alameda Police Department located at 1555 Oak Street, in Alameda, California (the Site). The well destruction activities were conducted in response to a March 4, 2013 letter from the Alameda County Environmental Health Department (ACEHD) recommending the Site for case closure, and requesting the destruction of the onsite groundwater monitoring well.

BACKGROUND

According to the July 2, 1986 Aqua Science Engineers, Inc. *Fuel Tank Monitoring Well Installation Project Report*, one compliance well (MW-1) was installed at the Site to monitor a 6,000-gallon underground storage tank (UST) which was reportedly installed at the Site in 1978. Based on available records, well MW-1 was installed at the Site in 1986 using 6-inch diameter hollow stem augers (HSAs) and consisted of a 2-inch schedule 40 polyvinyl chloride well installed to a total depth (TD) of 16 feet below ground surface (bgs). No boring/well construction log was available for this well. There are no records available indicating whether the UST was removed or is still in place; however, based on records from October 2010 and observations during AMEC's December 2011 investigation activities a newer 6,000 gallon UST is in use at the Site in the approximate location of the historic tank.

On December 28, 2011 AMEC oversaw the installation of three direct-push soil borings (B-1, B-2, and B-3) in the parking lot of the Site (Figure 1), in the estimated vicinity of the former UST. In addition to the three soil borings, Well MW-1 was re-developed and a groundwater sample was collected for analysis. Soil and groundwater samples collected from the soil borings and monitoring well were analyzed for total petroleum hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, and total xylenes, and seven oxygenates as presented in Tables 1 and 2. With the exception of a single detection (270 micrograms per liter) of TPHd in the groundwater sample collected from soil boring B-2, no analytes were reported above the laboratory reporting limits.

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Ms. Karel Detterman
Alameda County Environmental Health
May 23, 2013
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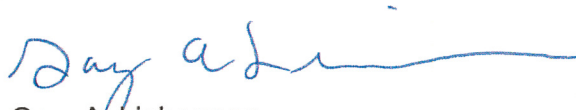
WELL DESTRUCTION ACTIVITIES


Prior to well abandonment, AMEC received a well abandonment permit from the Alameda County Public Works Agency (attached) and on May 20, 2013, AMEC oversaw the abandonment of monitoring well MW-1 at the Site. The well was abandoned by over-drilling using 8-inch HSAs to remove the entire well casing, annular seal, and sand filter pack material to a final depth of 17 feet bgs. A guiding rod was used to ensure that the auger stayed "on-track" within the well footprint. Field observation confirmed the auger stayed "on-track" and the casing was removed. The well borehole was then grouted from TD to surface using a lean cement/bentonite grout which was poured into the borehole using the augers as a tremie pipe. The augers were then removed from the hole and the borehole was topped off with grout. After grouting, the former well location was capped with concrete flush with the surrounding surface. A completed Department of Water Resources Well Completion form is attached. The well abandonment work was conducted by Cascade Drilling, LP of Richmond, California.

Soil cuttings were temporarily stored in a State of California Department of Transportation approved 55-gallon metal drum and will be disposed of pending characterization. Soil disposal documentation will be included under separate cover.

It is AMEC's understanding that this completes the work requested by the ACEHD in their March 4, 2013 letter, and that the environmental case for the Site can now be closed. If you have any questions or concerns, please contact Gary Lieberman at (707) 793-3858.

Sincerely yours,
AMEC Environment & Infrastructure, Inc.


Gary A. Lieberman
Associate Geology Professional


Bethany P. Flynn, P.G. 5710
Associate Geologist



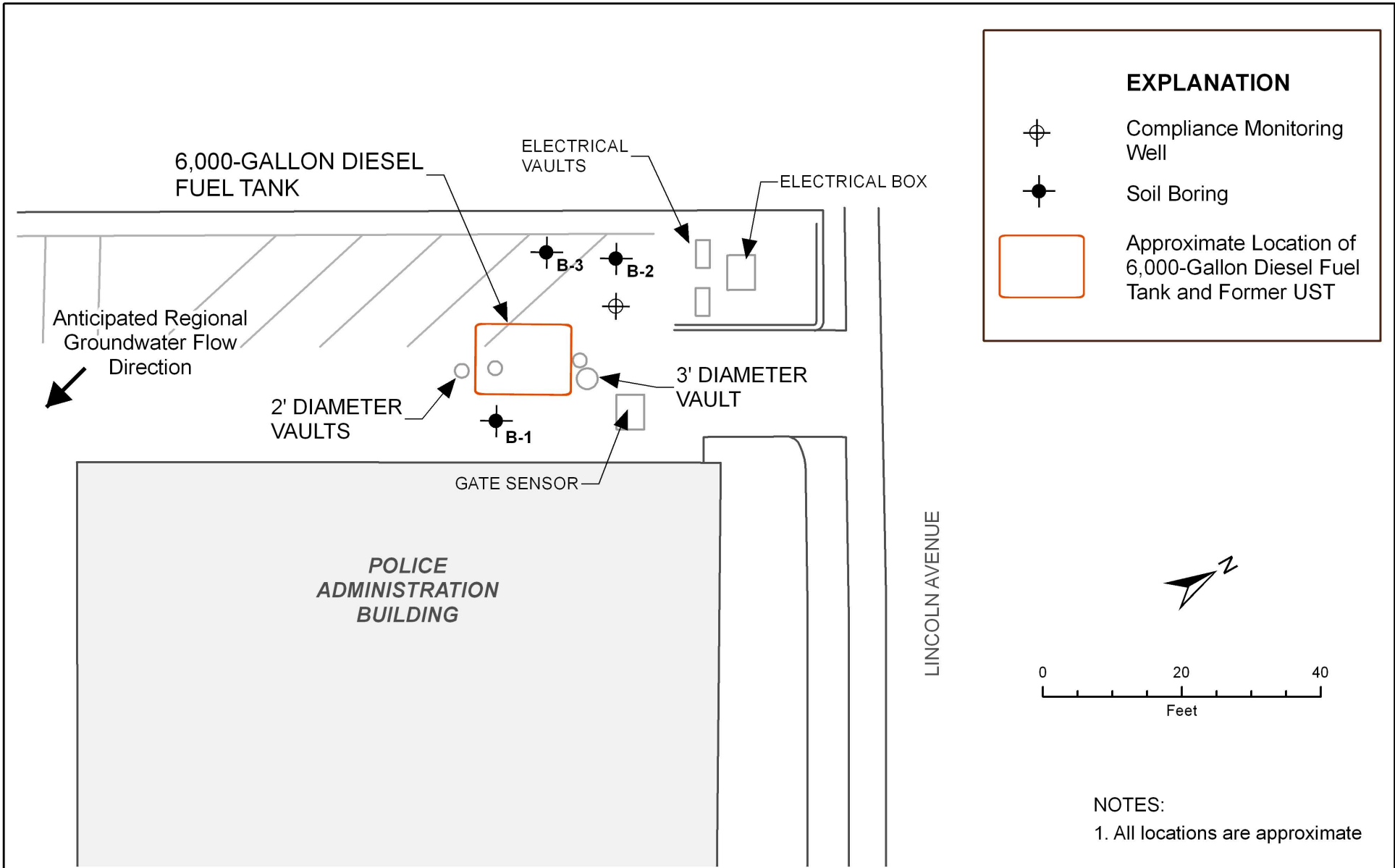
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Attachments: Figure 1: Site Map Showing Boring and Monitoring Well Locations

Table 1: Soil Analytical Results
Table 2: Groundwater Analytical Results

Attachment A: Well Destruction Permit
Attachment B: DWR Well Completion Report

FIGURE



Site Map
 Site Investigation Work Plan
 Alameda Police Department
 Alameda, CA

FIGURE

1

DRAWN
TJH

JOB NUMBER
4096114861 01

CHECKED

CHECKED DATE
1/2012

APPROVED

APPROVED DATE

TABLES

TABLE 1

SOIL ANALYTICAL RESULTS

Well Abandonment Report
 Alameda Police Department, 1555 Oak Street, Alameda California

Sample Location	Sample ID	Sample Depth	Date Collected	Reported Concentrations											
				TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	EDB	EDC	MTBE	TAME	ETBE	DIPE	TBA
		(feet bgs)		(mg/kg)	<.....µg/kg.....>										
B-1	S-B1-11.5	11.5	12/28/2011	ND(1.0)	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.7)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(3.9)	ND(7.7)
B-1	S-B1-19.5	19.5	12/28/2011	ND(0.99)	ND(7.9)	ND(7.9)	ND(7.9)	ND(16)	ND(7.9)	ND(7.9)	ND(7.9)	ND(7.9)	ND(7.9)	ND(7.9)	ND(16)
B-2	S-B2-11.5	11.5	12/28/2011	ND(1.0)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)
B-2	S-B2-19.5	19.5	12/28/2011	ND(1.0)	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.3)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(3.6)	ND(7.3)
B-3	S-B3-11	11	12/28/2011	ND(1.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(8.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(4.0)	ND(8.0)
B-3	S-B3-19.5	19.5	12/28/2011	ND(0.99)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(3.7)	ND(7.5)

Notes:

- bgs = below ground surface
- DIPE = di-isopropyl ether analyzed using EPA method 8260B.
- EDB = ethylene dibromide analyzed using EPA method 8260B.
- EDC = ethylene dichloride (1,2-Dichloroethane) analyzed using EPA method 8260B.
- ETBE = ethyl tert-butyl ether analyzed using EPA method 8260B.
- mg/kg = milligrams per kilogram
- MTBE = methyl tertiary-butyl ether analyzed using EPA method 8260B.
- ND() = Not detected above the laboratory reporting limits (reporting limit in paranthesis).
- TAME = tert-amyl-methyl ether analyzed using EPA method 8260B.
- TBA = t-butyl alcohol analyzed using EPA method 8260B.
- TPHd = Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).
- µg/kg = micrograms per kilogram

Benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyzed using EPA method 8260B.

TABLE 2

GROUNDWATER ANALYTICAL RESULTS

Well Abandonment Report

Alameda Police Department, 1555 Oak Street, Alameda California

Sample Location	Date Collected	Reported Concentrations											
		TPHd	Benzene	Toluene	Ethyl-benzene	Total Xylenes	EDB	EDC	MTBE	TAME	ETBE	DIPE	TBA
.....µg/l.....													
B-1	12/28/2011	ND(55)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)
B-2	12/28/2011	270	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)
B-3	12/28/2011	ND(58)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)
MW-1	12/28/2011	ND(53)	ND(0.50)	ND(0.50)	ND(0.50)	ND(1.0)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(4.0)

Notes:

- bgs = below ground surface
- DIPE = di-isopropyl ether analyzed using EPA method 8260B.
- EDB = ethylene dibromide analyzed using EPA method 8260B.
- EDC = ethylene dichloride (1,2-Dichloroethane) analyzed using EPA method 8260B.
- ETBE = ethyl tert-butyl ether analyzed using EPA method 8260B.
- MTBE = methyl tertiary-butyl ether analyzed using EPA method 8260B.
- ND() = Not detected above the laboratory reporting limits (reporting limit in paranthesis).
- TAME = tert-amyl-methyl ether analyzed using EPA method 8260B.
- TBA = t-butyl alcohol analyzed using EPA method 8260B.
- TPHd = Total Petroleum Hydrocarbons, diesel range (C10-C28), analyzed using EPA method 8015M, with silica gel strip (EPA method 3630C).
- µg/l = micrograms per liter

Benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyzed using EPA method 8260B.

ATTACHMENT A

Well Destruction 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: 04/16/2013 By jamesy

Permit Numbers: W2013-0296
Permits Valid from 05/20/2013 to 05/20/2013

Application Id: 1364844654242
Site Location: 1555 Oak Street

City of Project Site:Alameda

Project Start Date: Alameda, CA
05/20/2013

Completion Date:05/20/2013

Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: AMEC Environment & Infrastructure - Scott

Phone: 707-793-3810

Graham
1465 North McDowell Boulevard, Suite 200, Petaluma, CA 94954

Property Owner: City of Alameda Police Department

Phone: --

2263 Santa Clara Avenue, Alameda, CA 94501

Client: City of Alameda PWA

Phone: 510-846-5139

2263 Santa Clara Avenue, Alameda, CA 94501

Contact: Scott Graham

Phone: 707-793-3810
Cell: 707-483-7611

	Total Due:	\$397.00
Receipt Number: WR2013-0130	Total Amount Paid:	\$397.00
Payer Name : AMEC	Paid By: CHECK	PAID IN FULL

Works Requesting Permits:

Well Destruction-Monitoring - 1 Wells

Driller: Cascade Drilling, LP - Lic #: 938110 - Method: hstem

Work Total: \$397.00

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2013-0296	04/16/2013	08/18/2013	MW-1	6.00 in.	2.00 in.	5.00 ft	16.00 ft	2S/3W7N2	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.

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 B

DWR Well Completion Report

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED