PURJURY STATEMENT

Subject: Fuel Leak Case No. RO2601 and Geotracker Global ID T06019716048, 2421 Blanding Road, Alameda, CA

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

Kassandra Miller Allied Land Company

June 24, 2018



Karel Detterman, PG Senior Hazardous Waste Specialist Alameda County Health Care Services Agency (County)

Re: Well Abandonment Letter Report Former Allied Engineering Facility 2421 Blanding Ave., Alameda, CA RO2601

Dear Ms. Detterman:

On behalf of Allied Land Company (Allied), Endpoint Consulting, Inc. (Endpoint) is pleased to submit this well abandonment letter report summarizing the field activities associated with abandonment of groundwater monitoring wells MW1, MW2, and MW33 associated with the Fuel Leak Case No. RO0261 and located at the above-referenced site. Figure 1 prepared by Geo-Logic (2010)¹ depicts the locations of the three monitoring wells, while the matrix below summarizes the well construction details for each well.

Well ID	Casing Diameter	Well Depth	Screen Interval
MW1	2-inch PVC	35 feet	5 to 20 feet below ground surface (bgs)
MW2	2-inch PVC	35 feet	5 to 20 feet bgs
MW3	2-inch PVC	35 feet	5 to20 feet bgs

The well abandonment and associated reporting were conducted in response to the County's request via a letter dated May 4, 2018, and in support of closure of the case. It should be noted that on June 12, 2018, Endpoint requested in writing a one-month extension for conducting the well abandonment activities and associated documentation, which were originally requested by June 22, 2018 in the County letter.

Pre-Field Activities

Prior to initiation of field activities, Endpoint obtained a permit (from the County's Public Works Agency (PWA) to abandon the aforementioned wells at the site. A copy of the permit is included herein as Attachment I.

Pre-field activities also included preparation of a site-specific Health and Safety Plan, and conducting two site reconnaissance visits, including using a metal detector, to identify the location of each well. USA Dig Alert was also contacted in advance of initiation of field activities.

¹ Geo-Logic, 2010. Report of Monitoring Well Installation and May 2010 Sampling. Allied Engineering Company, 2421 Blanding Road, Alameda, CA. May 14, 2018.



Field Activities

On June 22, 2018, Endpoint oversaw the well abandonment activities performed by Cascade Drilling, a C57- Licensed driller. Under the supervision of County PWA staff, well abandonment at each of the three well locations included backfilling well casings with neat cement from the bottom up using a tremie pipe. After the wells were filled with cement, the casings were pressured to 25 pounds per square inch (psi) using a portable compressor for approximately five minutes. After the air pressure was removed, the wells were topped-off with neat cement. The existing well boxes were removed and the surface at each well location was patched to match the existing ground surface. No investigation derived waste (IDW) was generated during the well abandonment process.

Photos of post-well abandonment conditions at each of the three well locations are included as Attachment II.

Documentation

This letter report, together with well logs and the Well Completion Reports (WCRs) reflecting abandonment of each well as prepared by Cascade Drilling (and included herein as Attachment III) provide the necessary documentation of the well abandonment activities.

CLOSING

Endpoint appreciates the County's assistance with this project. If you have any questions, please contact Mehrdad Javaherian at 415-706-8935 or at <u>mehrdad@endpoint-inc.com</u>.

Sincerely, Endpoint Consulting, Inc.

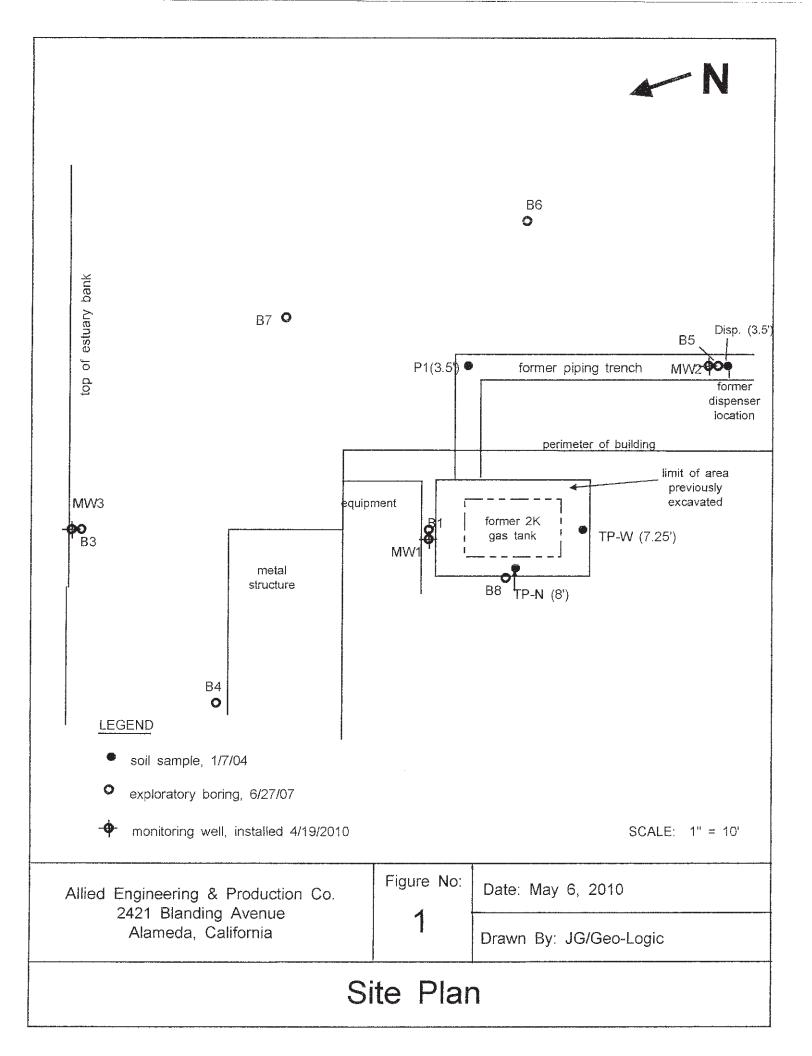
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Mehrdad Javaherian, Ph.D., MPH, PE, LEED[®]GA Principal and Technical Director



Enclosures

FIGURE



ATTACHMENT I

WELL ABANDONMENT 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: 06/19/2018 By jamesy Permit Numbers: W2018-0529 to W2018-0531 Permits Valid from 06/22/2018 to 06/22/2018 Application Id: 1528487654061 City of Project Site: Alameda Site Location: 2421 Blanding Ave, Alameda, CA 94501, USA **Project Start Date:** 06/22/2018 Completion Date:06/22/2018 Assigned Inspector: Contact Eneyew Amberber at (510) 670-5759 or eneyew@acpwa.org Endpoint Consutling - Scott Polston Phone: 510-394-4203 Applicant: 1534 Plaza Lane #Ž43, Burlingame, CA 94010 Kassandra D. Miller allied land company **Property Owner:** Phone: --P.O. Box 1230, Alameda, CA 94501 Kassandra D. Miller Allied Land Company Client: Phone: --P.O. Box 1230, Alameda, CA 94501 Phone: 510-394-4203 Contact: Scott Polston Cell: 510-331-4203

	Total Due:	\$1191.00
Receipt Number: WR2018-0319		\$1191.00
Payer Name : mehrdad javaherian	Paid By: VISA	PAID IN FULL

Works Requesting Permits:

Well Destruction-Monitoring - 3 Wells Driller: CASCADE DRILLING L P - Lic #: 938110 - Method: press

Work Total: \$1191.00

Specification	ns									
Permit #	Issued Date	Expire Date		Hole Diam.	•	Seal Depth	Max. Depth	State Well #	0	DWR #
			ld		Diam.				Permit #	
W2018- 0529	06/19/2018	09/20/2018	MW-1	8.00 in.	2.00 in.	4.00 ft	20.00 ft			
W2018- 0530	06/19/2018	09/20/2018	MW-2	8.00 in.	2.00 in.	4.00 ft	20.00 ft			
W2018- 0531	06/19/2018	09/20/2018	MW-3	8.00 in.	2.00 in.	4.00 ft	20.00 ft			

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.

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 30 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 10 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 assigned inspector listed on the top of the permit 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.

10. Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site. Submission dates are set by a Regional Water Board or by a regulatory agency. Once a report/data is successfully uploaded, as required, you have met the reporting requirement (i.e. the compliance measure for electronic submittals is the actual upload itself). The upload date should be on or prior to the regulatory due date.

ATTACHMENT II

PHOTOS

Abandonment of MW1



Abandonment of MW2



Abandonment of MW3



ATTACHMENT III

WELL LOGS AND WELL COMPLETION REPORTS

					BO	RING LOG				
Permit No. W	2010-019	1	Bo	oring	diam	eter: :8"	Logged By: Joel Greger			
Project: 242	1 Bland	ing	Ele	evatio	on: t	8.27 TOC	Date drilled: 4-19-2010			
Well No. N	1W1		Drillin	g M	ethod	: Hollow Stem	Drilling Company: Vironex			
Sample intervals	USCS	Depth (ft)	Cons	Well struc	tion		Description			
	CL		a l	solid casing	grout	stiff, no odor.	rete then dark gray silty clay (CL), sl. moist,			
		- 5 ·		2"			n silty clay (CL), moist, stiff, becoming sandy w/ moderate odor of hydrocarbons, saturated, or of hydrocarbons			
	- 10 · - - - - - - - - - - - - - - - -	2/12 sand	0.010 screen	2/12 sand						
		- 20 - - 25 -	•••• •••• ••• ••• ••• ••• ••• •••				20'. 0.010 screen, two inch casing, 5-2 -20'. Neat cement grout 0-4.5'.			
		- - 30 - -								
	2421 Bla	Engine anding (meda, (Avenue)	}	Figure No:	Date: 4-22-10			
	nidi	neua, V				MW1	Drawn By: JG			

	<u></u> ,	······			BO	RING LOG			
Permit No. W	2010-019	2	Bo	oring	diam	eter: :8"	Logged By: Joel Greger		
Project: 242	1 Bland	ing	Elev	/atio	n: 7.:	24 TOC	Date drilled: 4-19-2010		
Well No. M	IW2		Drillin	ig M	ethod:	Hollow Stem	Drilling Company: Vironex		
Sample intervals	USCS	Depti (ft)	n Cons	Well struc	I	<u></u>	Description		
	ML	- 5 - 10 - 15 - 20 - 25 - 30	2/12 sand	0.010 screen 2" solid casing	2/12 sand	sl. moist, stiff. 2 ⁱ 0 b ' - odor of hy 05.5' - Lt. gre odor. 08 - 10' - sand 010 - 12' - moderate odor, Sand v. fine-grai	crete pavement then v. dark gray silty clay (CL), ydrocarbons. een silty to sandy clay, (CL), moist, moderate ly clay (CL), saturated, stiff, moderate odor. light green sandy clay (CL), stiff, saturated, grades to clayey to silty sand (ML) at 11.3'. ined, dense, less odor. 20'. 0.010 screen, two inch casing, 5-20 5-20'. Neat cement grout 0-4.5'.		
	Allied 2421 Bla	Inding	Avenue	} }	<u> </u>	Figure No:	Date: 4-22-10		
	Alan	neda, i	UA .			MW2	Drawn By: JG		

					BO	RING LOG				
Permit No. W	2010-019	3	Bc	oring	diam	eter: :8"	Logged By: Joel Greger			
Project: 242	1 Bland	ing	Elev	vatio	n: 6.	97 TOC	Date drilled: 4-19-2010			
Well No. N	1W3		Drillin	gМ	ethod	: Hollow Stem	Drilling Company: Vironex			
Sample intervals	USCS	Depth (ft)) Cons	Well struc	1	·	Description			
			2/12 sand	0.010 screen 2" solid casing	2/12 sand	diameter, voids, m @4' - Dark browr @5' - Tan to ligh roots, v. moist, st @8' - grades to hydrocarbons, satu @10'. Grades to s grained'. @13.5' - grades t	n silt (ML), moist, stiff. t brown clayey silt and silt (ML), locally with iff. light green clayey silt (ML) with strong odor of			
	2421 Bla	Engine Inding neda, (Avenue) 	ļļ.	Figure No:	Date: 4-22-10			
	Aidi	neua, (5M			MW3	Drawn By: JG			

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form

Date Work Began <u>06/22</u> Local Permit Agency <u>Ala</u> Permit Number <u>W20180</u>	528487654061 MW 1 2/2018 Date ameda County Public Wo 0529 Permit Da Geologic Log	te <u>6/19/18</u>	en Report amphiet 4 Well Owne	State Weil Nu State Weil Nu Latitude APN/	hly - Do Not Fill In
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			Water Level	(Feet) Date	
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Geologic Log Well Construct Geophysical Lo Soil/Water Che Other Site Mi	og(s) mical Analyses ap	I, the undersigned, certify th Name <u>Cascade Drilling</u> Person, Firm or Corpo <u>120 South 23rd Street</u> Signed C-57 Licinsed Water 1	ration Rid	City 6/25/2018	CA 94804 State 938/10 ^{2/p} C-57 License Number

DWR 188 REV. 2/2017

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

*The free Adobe Reader may be used to view and complete this form. However, software must be purchased to complete, save, and reuse a saved form.

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DWR 188 REV 2/2017

IF ADDITIONAL SPACE IS NEEDED. USE NEXT CONSECUTIVELY NUMBERED FORM

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DWR 188 REV 2/2017

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