

30 June 2015 Project 731047903

Mr. Mark Detterman, PG, CEG Senior Hazardous Materials Specialist Alameda County Health Care Services Agency Environmental Health Department 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502 Equity Residential Two North Riverside Plaza Suite 400 Chicago, IL 60606

312.474.1300 312.454.8703 FAX EquityResidential.com

**RECEIVED** By Alameda County Environmental Health 9:59 am, Jul 01, 2015

Subject: Summary of Well and Basement Survey Results and Request for Closure Former Parkside Underground Storage Tank 5750 -5780 Hollis Street Emeryville, California Alameda County SCP Case No. RO0003109 Langan Project: 731047903

Dear Mr. Detterman:

As a legally authorized representative of Archstone Emeryville Residential, LLC, and on behalf of Archstone Emeryville Residential, LLC, I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document titled *Summary* of Well and Basement Survey Results and Request for Closure, Former Parkside Underground Storage Tank, 5750 -5780 Hollis Street, Emeryville, California, Alameda County SCP Case No. RO0003109, are true and correct to the best of my knowledge.

Sincerely yours,

Rebecca Becker

Assistant Vice President - Environmental Equity Residential

#### LANGAN TREADWELL ROLLO

Memorandum

555 Montgomery Street, Suite 1300 San Francisco, CA 94111 T: 415.955.5200 F: 415.955.5201

- TO: Mr. Mark Detterman, PG, CEG Alameda County Department of Environmental Health
- FROM: Peter J. Cusack Langan Treadwell Rollo Noel Liner, PG – Langan Treadwell Rollo
- **DATE:** 30 June 2015
- **PROJECT:** Former Parkside Underground Storage Tank 1354 Stanford Street (5750-5780 Hollis Street) Emeryville, California Case No.: RO0003109 Langan Project No.: 731047903

NOEL LINER n.12\_ No. 8770

**SUBJECT:** Summary of Well and Basement Survey Results and Request for Case Closure

On behalf of Archstone Emeryville Residential, LLC (Archstone), Langan Treadwell Rollo (Langan) is pleased to present this technical memorandum (Memorandum) summarizing the results of our Well and Basement Survey in connection with the request for case closure regarding the former underground storage tank (UST) at the Parkside project at 5750-5780 Hollis Street (Site) in Emeryville, California (Figure 1).

Alameda County Department of Environmental Health (ACDEH) requested the Memorandum at our meeting on 22 April 2015 among representatives from ACDEH, Archstone, Langan and Stice & Block to discuss the status of the Site and Archstone's request for Site closure. Specifically, ACDEH requested the performance of a well survey within 1,000 feet of the Site and a review of neighboring properties to determine which properties, if any, have basements that could be affected by any impacted groundwater emanating from or through the Site. Our understanding based on the meeting was that, subject to satisfactory findings from the well and a basement survey, Site closure was appropriate.

This Memorandum (1) summarizes removal activities for the former UST at the Site; (2) identifies the analytical results at the time of the UST removal in September 2012; (3) describes the results of the well and basement surveys; and (4) concludes that, based on the sum of this information and the information previously provided to ACDEH, closure of the Site is appropriate.

#### Former Underground Storage Tank

The Site formerly contained one 6,000-gallon heating oil UST. The UST was uncovered in 1992 by the City of Emeryville during a street relocation and park construction project at the northwest corner of Doyle and Stanford Avenues. The UST was located beneath the City of Emeryville parking lot, along the southern wall of the Powell Street building in the southeast corner of the Site. In September 2012, Treadwell & Rollo, A Langan Company (T&R) removed



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the UST under the oversight of ACDEH. The 6,000-gallon, single-wall steel UST measured approximately 18 feet in length and 8 feet in diameter and was located on a concrete pad. The area of the tank excavation was approximately 25 feet long by 11 feet wide by 12 feet deep. The tank appeared to be in good condition with no visible evidence of any pitting or containment failures, and no staining on the concrete pad. The soil surrounding the tank consisted of heterogeneous fill material. No soil staining, odors, or groundwater were observed during the excavation and removal process.

T&R collected a total of six soil samples from the excavation; two base samples from the soil below the tank and four sidewall samples (one from each sidewall). The base samples were gathered at approximately 12 feet below ground surface (bgs) on the east and west side of the former tank pits. Sidewall samples Tank1-NW, Tank1-EW, and Tank1-WW were collected at approximately 4.5 feet bgs. Sidewall sample Tank1-SW was collected at approximately 6 feet bgs.

The soil samples were analyzed for the following constituents:

- Total petroleum hydrocarbons as diesel (TPH-d) by EPA 8015 Modified;
- Total petroleum hydrocarbons as motor oil (TPH-mo) by EPA 8015 Modified;
- Total petroleum hydrocarbons as gasoline (TPH-g) by EPA 8015;
- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270C; and,
- LUFT 5 metals (cadmium, chromium, lead, nickel, and zinc) by EPA method 6010B.

The analytical results of the soil samples from the UST excavation and stockpile are presented in Table 1. No TPHg, VOCs, or SVOCs were detected in any soil samples, including no detections of any fuel additives or oxygenates such as MTBE, EDB, EDC, TAME, ETBE, DIPE, TBA, or BTEX, at or above the reported detection limits.

TPH-d was detected in four of the six samples at concentrations ranging from 2.7 milligrams per kilogram (mg/kg) in the north sidewall sample (Tank1-NW) to 200 mg/kg in in the bottom sample at the eastern end (Tank1-E) of the excavation. TPH-mo was detected in four of the six samples at concentrations ranging from 22 mg/kg in the north sidewall sample (Tank1-NW) to 360 mg/kg in the bottom sample collected at the eastern end (Tank1-E) of the excavation. One sample (Tank1-E) had a reported detection of TPH-d above the applicable residential Regional Water Quality Control Board, San Francisco Bay Region Environmental Screening Level (ESL) (200 mg/kg versus 180 mg/kg) and TPH-mo near the ESL (360 mg/kg versus 370 mg/kg). All other samples were much lower than ESLs or did not have detections.

With the exception of total lead in sample Tank1-E, chromium, lead, nickel, and zinc were all reported below residential ESLs. Cadmium was not detected in any soil sample.

On the basis of our observations during the UST removal and the analytical testing, the remedial activities conducted in September 2012 removed the heating oil UST and all materially affected soil adjacent to the Powell Street building. Groundwater was not encountered during the tank excavation and corrosion and pitting was not observed on the UST. Based on the above information, there is no basis to suspect any impact to groundwater associated with the former UST. Additionally, the groundwater on-Site is not considered a current or potential drinking water resource for the following reasons: The City of Emeryville's water system derives its water from the Hetch Hetchy regional water system and not local groundwater sources; and the nearest surface water body to the Site is San Francisco Bay (approximately 2,500 feet west).

#### Well Survey

A well search was conducted by Langan using records from Alameda County Public Works Agency (ACPWA) and Department of Water Resources (DWR) for wells within a 1,000 foot radius of the Site. No municipal or industrial supply wells or extraction wells were reported in the records within a 1,000-foot radius of the Site. Appendix A contains copies of the results of the well searches.

#### **Basement Survey**

On 11 May 2015, Langan conducted a visual survey of in the Site vicinity for buildings which may have a basement level. The purpose of the survey was to verify that pathways to sensitive receptors remain incomplete (vapor intrusion via building basements extending to the water table). Based on data from the adjacent former Union 76 service station (1400 Powel Street), shallow groundwater is generally between 11 to 14 feet bgs, and flow is to the southwest, towards the San Francisco Bay. Our basement survey area focused on properties down- to cross gradient of the Site extending approximately 850 feet west to the Southern Pacific/Amtrak railroad, Powell Street to the north, Fremont Street to the east, and 53<sup>rd</sup> Street to the south. The following table identifies properties which appeared, based on visual observation, to contain a basement level:

Summary of Well and Basement Survey Results and Request for Case Closure 5750-5780 Hollis Street Emeryville, California Langan Project: 731047903 30 June 2015 Page 4

Address	Basement Type	Distance from Site	Direction from Site	Property Type	Relative Position
1475 Powell Street	Full Basement	400 feet	West	Commercial	Cross-Gradient
1245 Stanford Avenue	Partial Basement	370 feet	East	Residential	Up-Gradient
5516 Beaudry Street	Partial Basement	435 feet	Southeast	Residential	Up-Gradient
5524 Beaudry Street	Partial Basement	410 feet	Southeast	Residential	Up-Gradient
5541 Vallejo Street	Partial Basement	435 feet	East	Residential	Up-Gradient
5556 Vallejo Street	Partial Basement	565 feet	East	Residential	Up-Gradient
5561 Vallejo Street	Partial Basement	490 feet	Southeast	Residential	Up-Gradient
5556 Fremont Street	Partial Basement	700 feet	East	Residential	Up-Gradient
5559 Fremont Street	Partial Basement	820 feet	East	Residential	Up-Gradient
5579 Fremont Street	Partial Basement	675 feet	East	Residential	Up-Gradient
1209 55 <sup>th</sup> Street	Partial Basement	920 feet	Southeast	Residential	Up-Gradient
1210 55 <sup>th</sup> Street	Partial Basement	810 feet	Southeast	Residential	Up-Gradient
1215 55 <sup>th</sup> Street	Partial Basement	900 feet	Southeast	Residential	Up-Gradient
Peladeau between	none	800 feet	Southwest	Commercial	Down-Gradient
Stanford and Haruff					
Hollis between Peladeau,	none	500 feet	Southwest	Commercial	Down-Gradient
Stanford & Powell				& Parking	
Hollis, southwest of	none	1000 feet	Southwest	Commercial	Down- to Cross-Gradient
Stanford – 5400 block				& Parking	
5885 Hollis Street	Below ground parking	800 feet	Northwest	Commercial	Cross-Gradient
5800 Hollis Street	Below ground parking	500 feet	North	Commercial	Cross-Gradient
1300 Block Powell Street	None	130 feet	North	Residential	Cross-Gradient
5800 Block Peladeau	Below ground parking	500-800	Northwest	Commercial	Cross-Gradient
(between Powell and 59 <sup>th</sup> )		feet			



#### **Request for Closure**

The remedial activities summarized in this Memorandum have effectively removed the heating oil UST and affected soil adjacent to the Powell Street building in accordance with regulatory guidelines. The nature and extent of TPH and BTEX contamination in soil has been laterally and vertically defined by soil sampling and appears to be very limited in extent. With the exception of one sample, the data were all below the residential screening levels for petroleum hydrocarbons in soil.

Groundwater was not encountered within the former UST excavation, and the UST did not exhibit signs of corrosion or pitting which would be indicative of contact with groundwater. Groundwater on-Site is not considered a current or potential drinking water resource as the City of Emeryville derives its water from the Hetch Hetchy regional water system. The results of a well and basement survey performed by Langan did not identify any municipal supply wells within 1,000 feet of the former UST location nor did the basement survey identify nearby residential basements directly down-gradient of the Site. Residential properties tended to be majority of properties upgradient of the Site, while commercial properties tended to be the majority of properties identified west of and down to cross-gradient of the Site. Additionally, as has been noted in the November 1995 LUFT Historical Case Analysis, average hydrocarbon plume lengths from LUFT sites rarely exceed 250 feet (Lawrence Livermore National Laboratory, 1995). As there is no indication of the former UST having leaked or otherwise had contact with groundwater, we surmise no groundwater contamination is likely from the former UST.

On the basis of our observations during the UST removal (as overseen by ACDEH representatives), well survey data, basement survey data, and the results of analytical testing for samples collected in the former UST excavation, it is our opinion the Site poses no material threat to human health, safety, and the environment, and is appropriate for no further action (NFA). We request, on behalf of our Archstone, that ACDEH formally close this Site.

If you have any questions after reviewing this Memorandum, please contact us at (415) 955-5200.

Attachments: Table 1 –Non-Metals Analytical Results Table 2 – Metals Analytical Results Figure 1 – Site Location Map Figure 2 – Site Plan Appendix A –Well Search Results

731047903.07 PJC



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#### REFERENCES

Alameda County Department of Environmental Health Services, *Request for Site Investigation Work Plan, Fuel Leak Case No. RO0003109 and Geotracker Global ID T1000000444, API Emeryville Parkside – UST, 5750-5780 Hollis Street, Emeryville, CA 94608 dated* 26 January 2015.

Alameda County Public Works Agency, Results of Well Search, transmitted 5 May 2015.

Department of Water Resources, *Results of Well Search* dated 257 April 2015.

Treadwell & Rollo, A Langan Company, Removal of underground Storage Tank, Parkside, 5750-5780 Hollis Street, *Emeryville, California* dated 13 November 2012.

Lawrence Livermore National Laboratory, University of California, Davis, University of California, Santa Barbara, University of California, Los Angeles, University of California, Berkeley California Leaking Underground Fuel Tank (LUFT) Historical Case Analyses, 16 November 1995.

TABLES

#### Table 1 Soil Analytical Results for Non-Metals Parkside Emeryville, California Project: 731047902

Sample ID	Depth (feet)	Date Sample	TPHg	TPHd	TPHmo	VOCs	SVOCs
			mg/kg				
Tank1-E	12.0	9/11/12	< 1.0	200	360	ND	ND
Tank1-W	12.0	9/11/12	< 1.0	34	67	ND	ND
Tank1-NW	4.5	9/11/12	< 1.0	2.7	22	ND	ND
Tank1-SW	6.0	9/11/12	< 1.0	< 1.0	< 5.0	ND	ND
Tank1-EW	4.5	9/11/12	< 1.0	8.3	36	ND	ND
Tank1-WW	4.5	9/11/12	< 1.0	< 1.0	< 5.0	ND	ND
SP-1-4		9/11/12	< 1.0	18	64	ND	ND
Environmental Screening Levels (mg/kg)							
≤ <b>1</b> 0			100	100	370	-	
≥ 10			180	180	5000		

Notes:

mg/kg - milligrams per kilograms

TPHg - Total Petroleum Hydrocarbons as Gasoline, EPA Method 8015M

TPHd - Total Petroleum Hydrocarbons as Diesel Range, EPA Method 8015M

VOCs - Volatile Organic Compounds, EPA Method SW8260B

SVOCs - Semi-Volatile Organic Compounds, EPA Method SW8270C

ND - Not detected at or above the laboratory reporting limit

< 1.0 - Analyte was not detected above the laboratory reporting limit (1.0 mg/kg) -- - Not Applicable

Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board, Interim Final, November 2007, Residential Land Use where groundwater is not a current or potential drinking water resource

#### Table 2 Soil Analytical Results for Metals Parkside Emeryville, California Project: 731047902

Sample ID	Depth (feet)	Date Sampled	Cadmium	Chromium	Lead	Nickel	Zinc
			(mg/kg)				
Tank1-E	12.0	9/11/12	< 1.5	58	< 5.0	78	69
Tank1-W	12.0	9/11/12	< 1.5	72	9.4	100	110
Tank1-NW	4.5	9/11/12	< 1.5	64	44	46	90
Tank1-SW	6.0	9/11/12	< 1.5	76	10	48	57
Tank1-EW	4.5	9/11/12	< 1.5	73	19	45	70
Tank1-WW	4.5	9/11/12	< 1.5	90	10	54	70
SP-1-4		9/11/12	< 1.5	53	74	59	140
Hazardous Waste Criteria							
TTLC	(mg/kg)		100	2,500	1,000	2,000	5,000
STLC	(mg/L)		1			20	250
TCLP	(mg/L)						
Environmental Screening Levels (mg/kg)							
≤ 10			1.7	750	200	150	600
≥ 10			39	2,500	750	260	2,500

Notes:

mg/kg - milligrams per kilograms

< 1.5 - Analyte was not detected above the laboratory reporting limit (1.5 mg/kg).

-- Not analyzed

TTLC - California Total Threshold Limit Concentration - State hazardous waste criterion

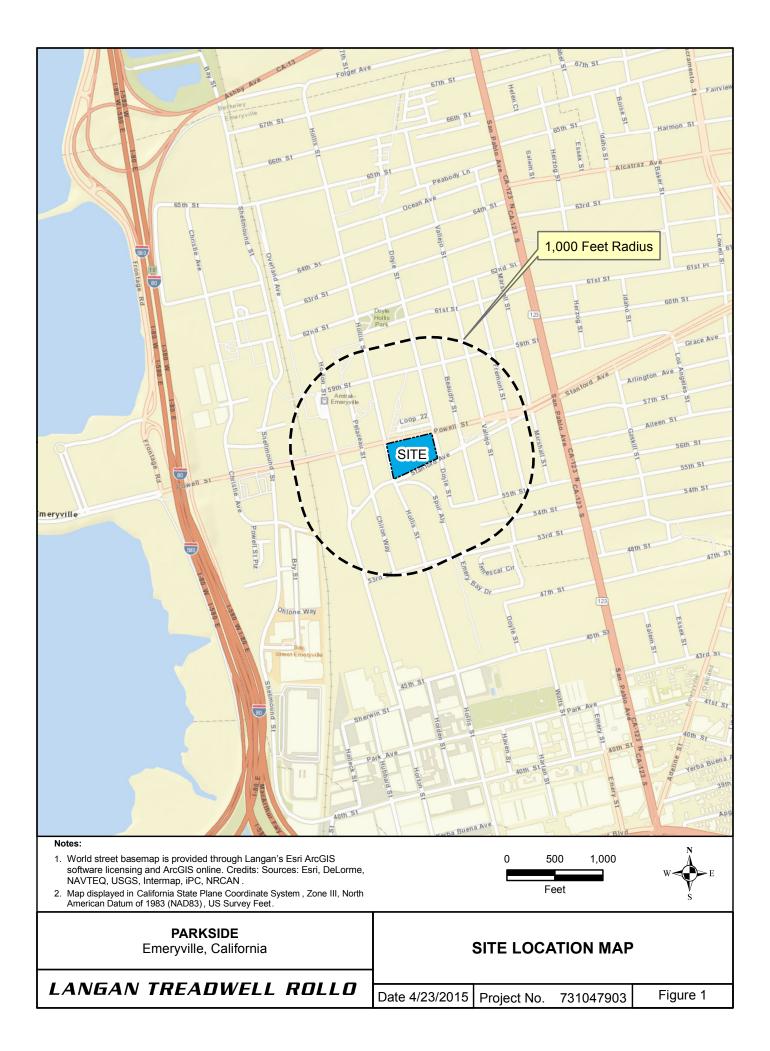
STLC - California Soluble Threshold Limit Concentration

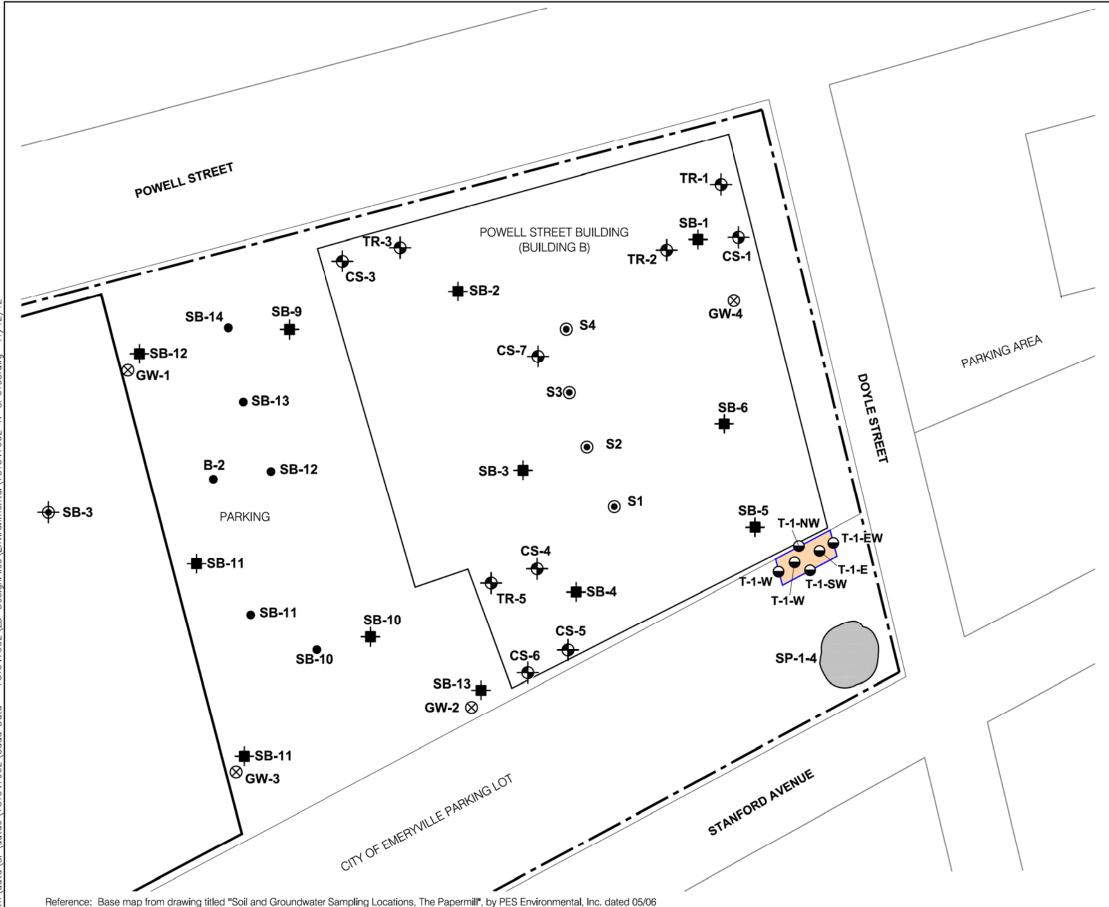
TCLP - Federal Toxicity Characteristic Leaching Procedure

-- - Not Applicable

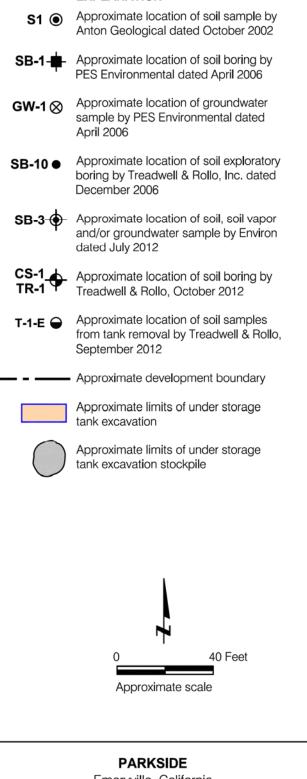
Environmental Screening Levels (ESLs), San Francisco Bay Regional Water Quality Control Board, Interim Final, November 2007, Residential Land Use where groundwater is not a current or potential drinking water resource **FIGURES** 

LANGAN TREADWELL ROLLO





#### EXPLANATION



Emeryville, California

SITE PLAN WITH TANK EXCAVATION AND SAMPLE LOCATION

Date 11/12/12 Project No. 731047902 Figure 2

#### LANGAN TREADWELL ROLLO

APPENDIX A WELL SEARCH RESULTS

LANGAN TREADWELL ROLLO



COUNTY OF ALAMEDA PUBLIC WORKS AGENCY WATER RESOURCES SECTION 399 Elmhurst Street, Hayward, CA 94544-1307 James Yoo PH: (510) 670-6633 FAX: (510) 782-1939 FOR GENERAL DRILLING PERMIT INFO: www.acgoy.org/pwa/wells

WELL COMPLETION REPORT RELEASE AGREEMENT—AGENCY (Government and Regulatory Agencies and their Authorized Agents)

Project No./Site Address 5/8

Township, Range, and Section

(Must include entire study area and a map that shows the area of interest.)

MERVVI 000 ft Radius

City

Under California Water Code Section 13752, the agency named below requests permission from Department of Water Resources to inspect or copy, or for our authorized agent named below to inspect or copy, Well Completion Reports filed pursuant to Section 13751 to (check one):



Make a study, or,

Perform an environmental cleanup study associated with an unauthorized release of a contaminant within a distance of 2 miles.

In accordance with Section 13752, information obtained from these reports shall be kept confidential and shall not be disseminated, published, or made available for inspection by the public without written authorization from the owner(s) of the well(s). The information shall be used only for the purpose of conducting the study. Copies obtained shall be stamped **CONFIDENTIAL** and shall be kept in a restricted file accessible only to agency staff or the authorized agent.

HEAlth Regulatory Agency uthorized Agent 1300 113 Address AMER City, State, and Zip Code State, and Zip Code Signature Specialist Title 5-5200 510-567-6700 Telephone Telephone 5201 .377 Fax Fax Date DeHERMAN CACGOV. OP9 E-mail

POO-FDES-FORM-Well Completion Report Release Agreement 12-13-13.doc

#### STATE OF CALIFORNIA - THE NATURAL RESOURCES AGENCY

NORTHERN REGION 2440 Main Street Red Bluff, CA 96080 (530) 529-7300 (530) 529-7322 (Fax)

DEPARTMENT OF WATER RESOURCES NORTH CENTRAL REGION 3500 Industrial Blvd. West Sacramento, CA 95691 (916) 376-9612 (916) 376-9676 (Fax)

SOUTH CENTRAL REGION 3374 E. Shields Ave Ste A7 Fresno, CA 93726 (559) 230-3300 (559) 230-3301 (Fax)

EDMUND G. BROWN JR, Governor

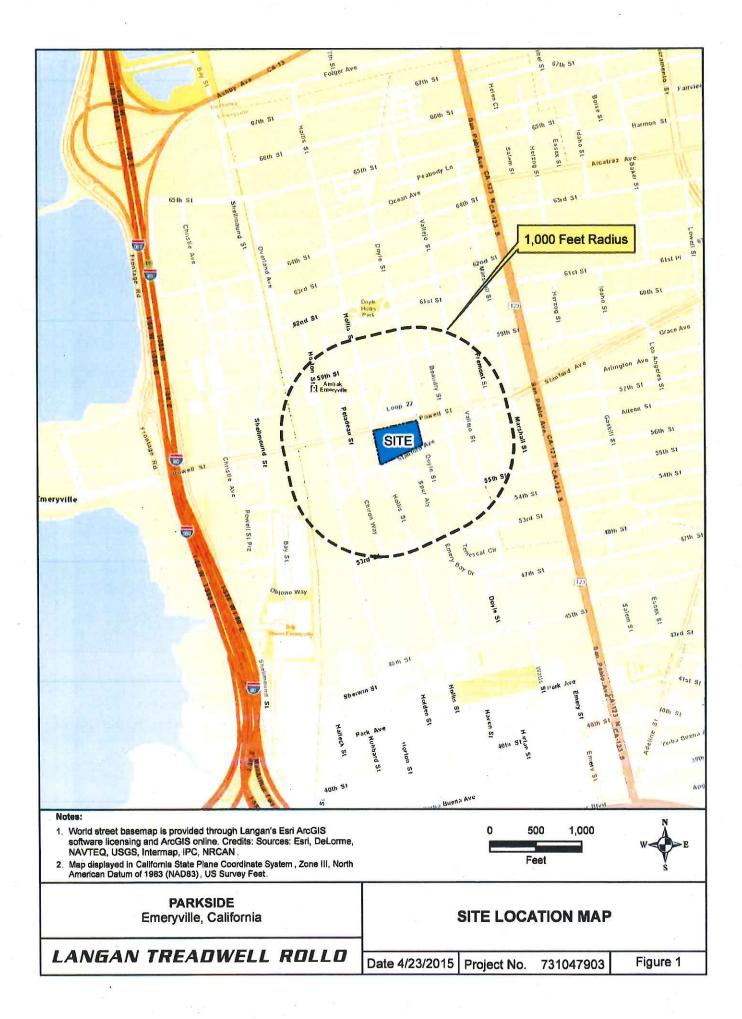
SOUTHERN REGION 770 Fairmont Avenue Glendale, CA 91203 (818) 500-1645 ext. 233 (818) 543-4604 (Fax)

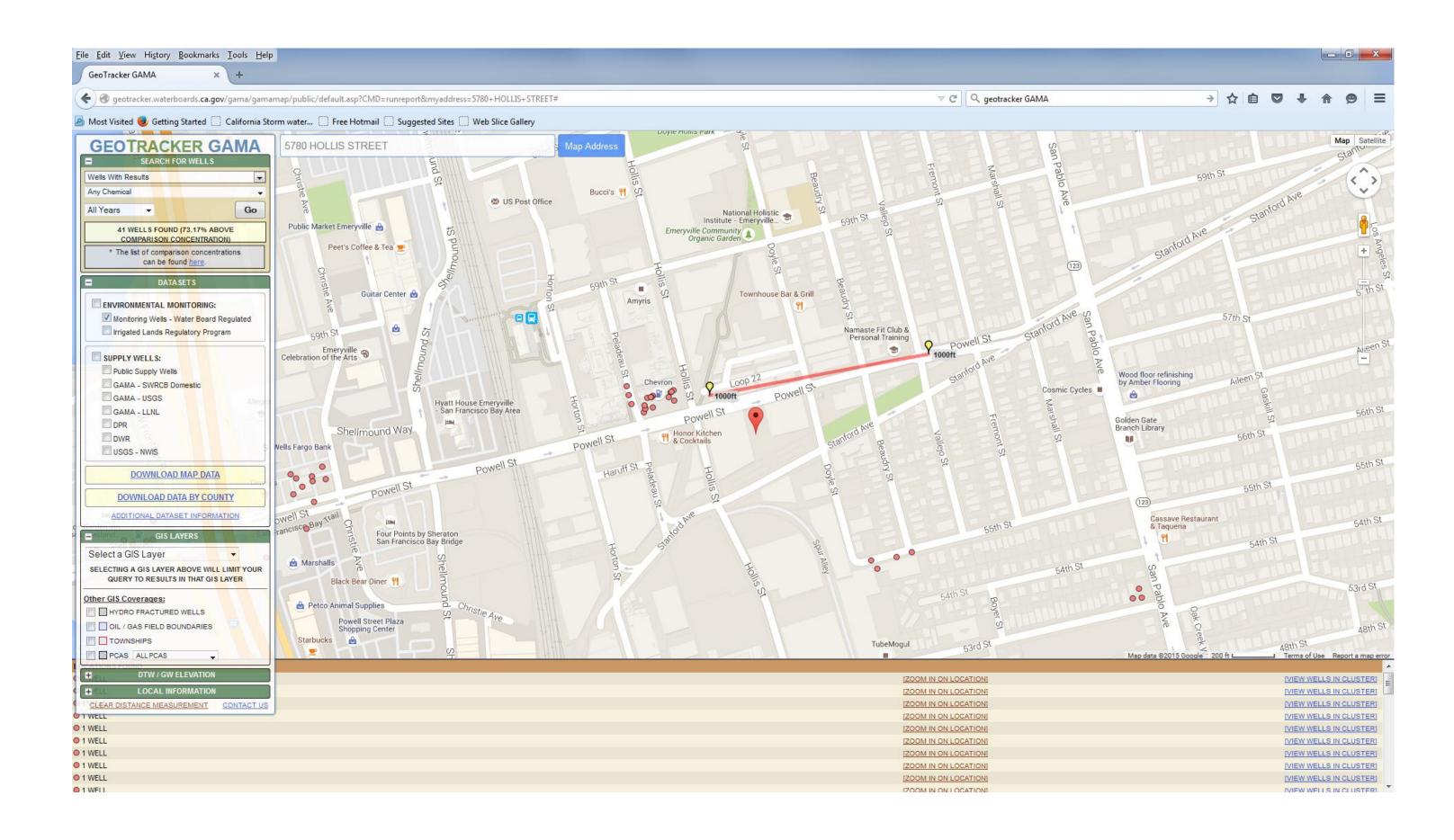
#### WELL COMPLETION REPORT RELEASE REQUEST AND CONFIDENTIALITY AGREEMENT **REGULATORY-RELATED ENVIRONMENTAL CLEANUP STUDY**

Under California Water Code Section 13752, Well Completion Reports associated with wells located within two miles of an area affected or potentially affected by a known unauthorized release of a contaminant will be made available upon request to any person performing an environmental cleanup study associated with the unauthorized release, if the study is conducted pursuant to a regulatory agency order. Requests must be made on the form below, signed and submitted to the appropriate DWR District Office. Please provide the township, range, and section of the property where the study is to be conducted. Attach a map or a sketch with a north arrow, and provide as much identifying information requested below as possible;-additional paper may be attached if necessary.

Well Completion Reports are made confidential pursuant to Water Code Section 13752 which defines the persons or entitles entitled to copies of those reports and the circumstances under which those reports may be requested. Release of well reports to authorized entities does not change their confidential character, and other uses of the reports are not authorized by the Water Code. Failure to comply with the requirements of Section 13752 is a misdemeanor (Water Code Section 13754).

Project Name: PARKSIDE	County: ALAMEDA
Street Address: 5780 Hollis Front	City: EMERY VILLE
Township, Range, and Section:	Radius: 1,000 feet
(Include entire study area and a map that shows the area of inter	
Requester's Company	AlAMEDA COUNTY ENVIRONMENTAL MERTH
Requester's Name (please print)	MARK DEHERMAN Agency Contact Name (please print)
555 Mantgomerzy St. Suite 1301 Address	1131 HAR DOR BAY PARKWAY
<u>GAN FRANCISCO CA 94111</u> City, State, and Zip Code	Alameda, CA 94502 City, State, and Zip Code
Signature: My Mack	Signature: Marcesta
Title: GENIOR ASSOCIATE	Title: JENIOR HAZAROOUS MADERIA SPECIALIST
Telephone: (415) 955 - 5200	Telephone: (510) 567-6700
FAX: (415) 955 - 5201	FAX: (510) ,337-9335
Date: 4/23/15	Date: 4/23/15
E-mail: PCUSA-CLCLANGAMCOM	E-mail: MARK. Detterman CACGOV. COM





# CONFIDENTIAL

### STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

## REMOVED

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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

### REMOVED

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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

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