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By Alameda County Environmental Health at 2:02 pm, Dec 27, 2013



Brian Waite
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Marketing Business Unit

**Chevron Environmental
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December 6, 2013

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Facility # 90019

Address: 210 Grand Avenue, Oakland, CA

Dear Mr. Detterman:

The purpose of this letter is to verify that as a representative for Chevron Environmental Management Company (Chevron), I reviewed, and concur with, the comments in the *Site Assessment Work Plan* for the referenced facility, prepared on behalf of Chevron by Conestoga-Rovers & Associates.

Please feel free to contact me at (790) 790-6486 if you have any questions.

Sincerely,

Brian A. Waite

Digitally signed by Brian A. Waite
DN: cn=Brian A. Waite, o=Chevron Environmental Management
Company, ou, email=bwaite@chevron.com, c=US
Date: 2013.12.05 13:26:37 -0800

Brian Waite
Project Manager

Brian Waite
Project Manager

Enclosure: Report



**CONESTOGA-ROVERS
& ASSOCIATES**

10969 Trade Center Drive, Suite 107
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
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December 6, 2013

Reference No. 632327D

Mr. Mark Detterman, P.G., C.E.G.
Alameda County Environmental Health (ACEH)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Site Assessment Work Plan
Former Chevron Service Station 90019
210 Grand Avenue
Oakland, California
Case RO0000137

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) is submitting this *Site Assessment Work Plan* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (Chevron). During a recent phone conference between the Alameda County Environmental Health Department (ACEH), Chevron, and CRA on September 30, 2013, ACEH requested a work plan to address the following:

- Confirmation of the appropriateness of the screened interval (potential submerged screen) in monitoring well MW-4 to monitor hydrocarbon concentrations in shallow groundwater.
- Additional plume delineation downgradient of MW-5.
- Evaluation of preferential pathways for contaminated groundwater to enter Lake Merritt via utility trenches.

A work plan for additional site assessment to address ACEH's concerns is provided below.

EVALUATION OF MW-4 SCREEN INTERVAL AND ADDITIONAL PLUME DELINEATION DOWNGRADIENT OF MW-5

To evaluate the appropriateness of the screen interval of MW-4 in relation to depth to groundwater and to provide further plume delineation downgradient of MW-5, CRA proposes to advance one soil boring onsite (Figure 2). Soil boring B-6 will be located approximately 15 feet downgradient of onsite monitoring well MW-4, and in the general downgradient direction of MW-5. The boring will be advanced to approximately 9.5 feet below grade (fbg), the top of the screen interval for MW-4. If groundwater is encountered, a groundwater sample

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will be collected to confirm groundwater conditions in MW-4, as well as providing an additional data point for plume delineation in the general downgradient direction of MW-5. If no water is encountered, it will be confirmed that confining conditions exist at the site in the vicinity of MW-4, and that the screened interval for MW-4 is appropriate. The details of the planned site assessment are described below.

Permit

CRA will obtain the necessary soil boring permit from Alameda County Public Works Department (ACPW).

Site Health and Safety Plan

CRA will prepare a comprehensive site health and safety plan to protect site workers. The plan will be reviewed and signed by each site worker and kept with the field crew during field activities.

Underground Utility Location

CRA will mark the proposed boring location and notify Underground Service Alert (USA) at least 48 hours prior to site assessment activities. CRA will also subcontract a private utility locator to further identify potential subsurface utility locations.

Soil Boring B-6: The soil boring will be advanced using a 3.5-inch diameter hand auger to 9.5 fbg. Once the boring has been advanced and groundwater collected, if encountered, it will be backfilled with Portland cement to approximately 1 fbg and then completed to grade to match the existing surface material.

Logging and Soil Sampling: Soil will be continuously logged using the modified Unified Soil Classification System. Soil will be screened approximately every three feet using a photoionization detector (PID).

Groundwater Sampling: After the boring has been advanced to 9.5 fbg, a 2.75" pre-packed temporary well (1" well) will be placed into the open borehole. The well will be screened from approximately 4.5 to 9.5 fbg, or higher, if groundwater is encountered above 4.5 fbg. The groundwater, if encountered, will then be collected from the temporary well using a disposable bailer. Groundwater sampling containers submitted for analysis will be labeled, entered onto a chain-of-custody form, packed on ice, and sent to Lancaster Laboratories (Lancaster) in Lancaster, Pennsylvania.



Chemical Analyses: The groundwater sample collected will be analyzed for the following:

- TPHg by 8015M
- BTEX and MTBE by EPA Method 8260B

Waste Disposal: Soil cuttings and decontamination water generated during site assessment activities will be stored onsite in labeled U.S. Department of Transportation approved 55-gallon drums pending analysis and proper disposal at a Chevron-approved facility.

Reporting: Upon completion of the above activities, CRA will prepare a limited site assessment report that will include the following:

- A summary of soil boring activities
- Boring log
- Tabulated analytical results
- Analytical report and chain-of-custody form
- Waste disposal status
- CRA's conclusions and recommendations

Schedule: CRA will begin the proposed work upon receipt of ACEH approval of this work plan. CRA will submit a report of findings approximately 60 days following the receipt of all final analytical data.

PREFERENTIAL PATHWAY STUDY

In order to better assess the possibility of hydrocarbons in groundwater reaching Lake Meritt via utility trenches, CRA will contact staff at the City of Oakland to obtain the age and any available construction details for the abandoned and currently utilized storm drain systems, which run downgradient and crossgradient of MW-4 and MW-5 (Figure 2). The information provided by the City of Oakland will be included in the above-mentioned limited site assessment report.



**CONESTOGA-ROVERS
& ASSOCIATES**

December 6, 2013

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Reference No. 632327D

We appreciate the opportunity to work with you on this project. Should you have any questions, please do not hesitate to contact Nate Allen at (916) 889-8929.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES



Nate Allen P.G. #9075

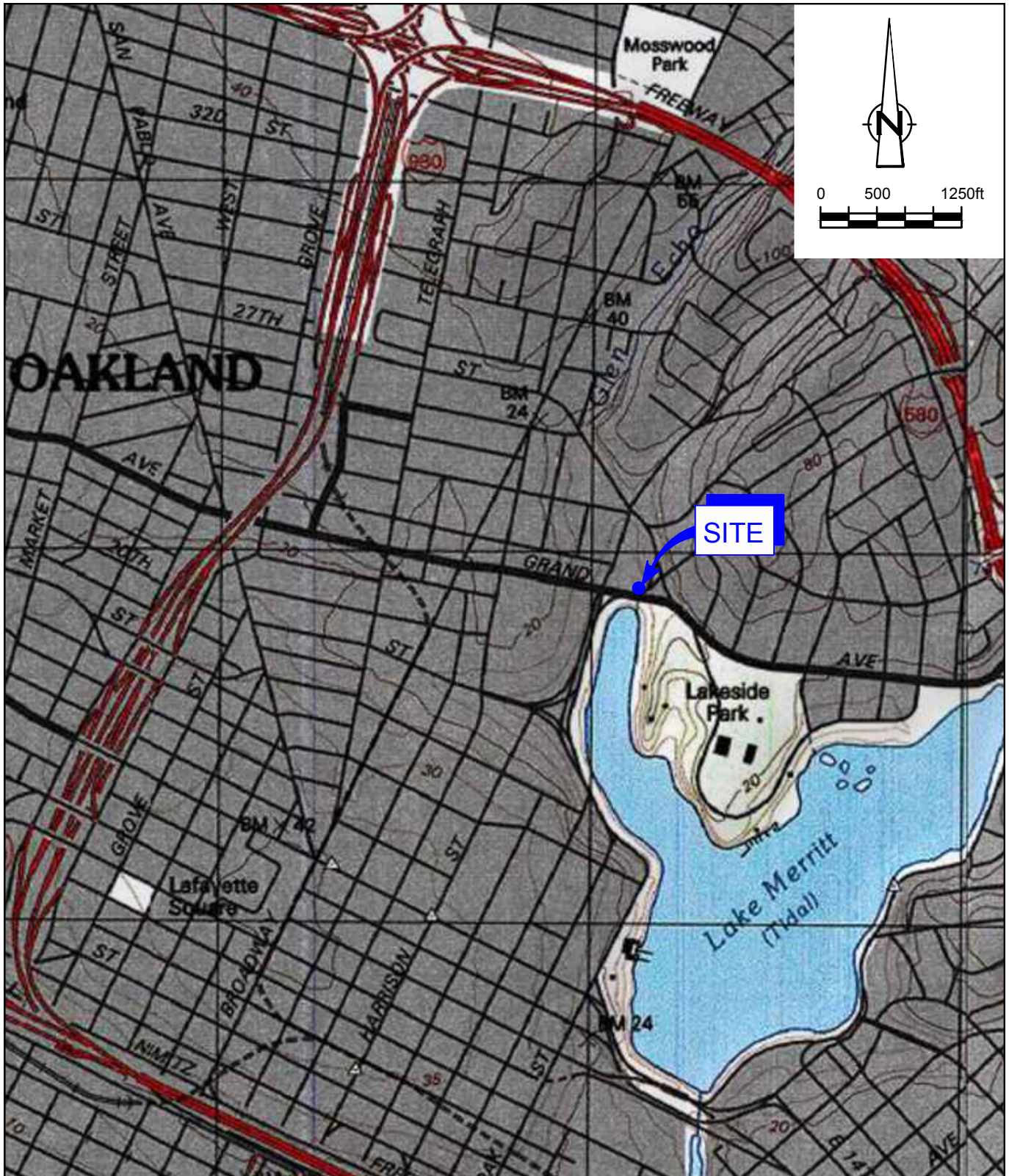
NA/mws/14

Encl.

Figure 1 Vicinity Map
Figure 2 Proposed Boring Location

cc: Mr. Brian Waite, Chevron (*electronic copy*)
 Mr. Anthony Reese, City of Oakland

FIGURES



SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP
 FORMER CHEVRON SERVICE STATION 90019
 210 GRAND AVENUE
 Oakland, California



