

## Detterman, Mark, Env. Health

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**From:** Brasher, Bill [bbrasher@crowworld.com]  
**Sent:** Thursday, August 29, 2013 3:36 PM  
**To:** Roe, Dilan, Env. Health  
**Cc:** Detterman, Mark, Env. Health; 'Hetrick, Eric G'; Wilken, Brandon; Gilbert, Judy  
**Subject:** RE: Chevron 9-5607 5269 Crow Canyon Rd, Castro Valley, CA (RO350): Conditional Approval of Work Plan

Dilan,

It was good talking to you. I appreciate you getting back to me to discuss our questions. I am sending this message to document our conclusions about each of Mark's technical points presented in his email below. The conclusions were:

- 1.a. As discussed, we will change the work plan to reflect that we will collect only undisturbed soil samples (for analysis of both chemical concentrations and physical parameters). We will modify the text of the draft work plan to reflect this change in the final work plan.
- 1.b. As discussed, we will include one additional offsite vapor probe location adjacent to the northern townhome building (an increase from three to four total offsite vapor probe locations). The new probe location will be in the vicinity of monitoring well C-12 and the northern end of the northern townhome building. In addition, we will move the probe location that had been proposed adjacent to monitoring well C-9 to a location closer to the southern end of the northern building. And finally, we will move the probe location near the southern building to a location approximately 20 feet north of the location that had been proposed (adjacent to what appears to be an alcove at the front of that building). This will bring that probe to a location that is more on a line between the building and the onsite source area. We will modify the text and Figure 2 of the draft work plan to reflect these changes in the final work plan.
- 1.c. As discussed, Mark's comments did not reflect that CRA performed an extensive utility survey and preferential path analysis as previously requested by ACEH. That analysis was summarized in the Site Conceptual Model (SCM) presented for the site in August 2012. We believe that the questions Mark lists below can be answered with the information in the SCM. If there are gaps in the SCM's preferential path analysis, and if the data from the vapor investigation require interpretation that could be explained by a utility presenting a preferential pathway, CRA will perform additional analysis as required. However, to complete the current scope (soil and soil vapor investigation), there does not appear to be any additional assessment of utilities required. We will add a statement to the final work plan indicating that we believe the preferential path questions can be answered by the SCM.
- 1.d. As discussed, we will add two additional vapor probe locations onsite; one within the footprints of each of the two former dispenser islands. We will collect data from these boreholes/probes to close the loop on the dispenser islands being a potential source of impacts at the site. We will modify the text and Figure 2 of the draft work plan to reflect this addition in the final work plan.

Although we didn't discuss it, please also note that the report requested by October 28, 2013 will be a Soil and Soil Vapor Investigation Report.


We will finalize the soil vapor investigation work plan and submit to you as requested so that we can get your final approval of the scope of work prior to performing it. Please look forward to receiving a message from either Judy Gilbert or myself within the next one to two working days to let you know the work plan is ready for your review/approval. And please let us know if you have any questions or require modifications to the information presented in this message. Thanks.

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**William E. (Bill) Brasher, P. E.**  
**Conestoga-Rovers & Associates (CRA)**

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**From:** Brasher, Bill  
**Sent:** Thursday, August 29, 2013 10:54 AM  
**To:** Roe, Dilan, Env. Health  
**Cc:** 'Detterman, Mark, Env. Health'; 'Hetrick, Eric G'; Wilken, Brandon; Gilbert, Judy  
**Subject:** RE: Chevron 9-5607 5269 Crow Canyon Rd, Castro Valley, CA (RO350): Conditional Approval of Work Plan

Dilan,  
I'm sending this message to follow up on a voice mail I just left for you. I tried to call Mark first, but did not get an answer, and it appears from his email below that he is out of the office until next Wednesday. We (CRA and Eric) have talked and agreed that we should be certain about the scope of the soil/soil vapor investigation before we submit the final version of the work plan. I would appreciate if you could call me at your earliest convenience to go over Mark's comments below. Please call me at my office phone number listed below. I look forward to hearing from you. Thanks.

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**From:** Detterman, Mark, Env. Health [<mailto:Mark.Detterman@acgov.org>]  
**Sent:** Wednesday, August 28, 2013 5:06 PM  
**To:** 'Hetrick, Eric G'; Gilbert, Judy; Brasher, Bill; Wilken, Brandon

Cc: Roe, Dilan, Env. Health

Subject: Chevron 9-5607 5269 Crow Canyon Rd, Castro Valley, CA (RO350): Conditional Approval of Work Plan

Erik,

Alameda County Environmental Health (ACEH) has reviewed the draft *Work Plan for Soil Vapor Investigation*, dated August 27, 2013 and submitted as a draft work plan by Conestoga-Rovers & Associates (CRA) at the request of ACEH. The work plan was submitted in follow up to a recent meeting regarding the site, and proposed the installation of seven dual completion soil vapor wells. Four were proposed for onsite locations and three were proposed for offsite locations. The onsite wells were proposed to be installed at a depth of 7 and 12 feet below grade surface (bgs), while offsite wells were proposed for installation at 3.5 and 7 feet bgs due to elevation differences. Vapor samples were proposed to be collected in accordance with DTSC guidelines and Chevron soil vapor protocols. At least three disturbed shallow soil samples were proposed for collection in the upper 10 feet of the site (two above five feet, and one below five feet), and at least one disturbed soil sample was proposed to be collected within each screen interval of all soil vapor probes.

Based on ACEH staff review of the work plan, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. **Please be aware that the submittal of a revised final work plan, including a professional signature, stamp, and perjury statement is required to incorporate these technical comments.** Should an alternative proposal be considered, the methods should be incorporated into the revised work plan; however, delays will be encountered in obtaining ACEH concurrence prior to the planned September 10 to 12 start date due to schedule conflicts (vacation). ACEH requests expediency in conducting this work as it is being collected to support Monitored Natural Attenuation and as such is a variance from the approved Corrective Action Plan. We request that you address the following technical comments, perform the proposed work, and send us the report described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org)) prior to the start of field activities.

## **TECHNICAL COMMENTS**

1. **Work Plan Clarifications** – The referenced work plan proposes a series of actions with which ACEH is in general agreement of undertaking; however, requests several modifications to the approach. Please submit a report by the date specified below.
  - a. **Soil Sample Selection Protocols** – The work plan proposes to collect and retain for laboratory analysis disturbed soil samples and as such are not appropriate to use to compare to the Direct Contact and Indoor Air Exposure Criteria. Only undisturbed samples are appropriate due to a comparison to volatile (benzene and ethylbenzene) and non-volatile compounds (naphthalene).
  - b. **Soil Vapor Sample Locations** – Due to the limited time available, and in order to address neighborhood concerns at the public meeting that is planned in about one month, it appears warranted to collect sufficient soil and soil vapor analytical data to allay the likely concerns of the residents of the townhomes. Thus it appears appropriate to increase the number of vapor well locations at the townhomes, such that the northern and southern end of the northern building is also sampled for soil and soil vapor. The southern location also addresses elevated vapor samples collected at SV-4 in 1996 (at depth, under earlier pre-DTSC protocols) should it become an issue to the public.
  - c. **Vapor Well Placement** - In conjunction with the placement of the vapor wells, ACEH, CRA, and Chevron also discussed locating utility lines in the neighborhood. This was to address a potential reason for the recent notable upward spike in groundwater concentrations (benzene) at C-9, but is also an important factor for the utility laterals to the townhomes as shallow preferential pathways. Existing sewer lateral data is available in the November 1999 Weiss & Associates report; however, additional utilities were not located (gas, water, etc.), and the offsite vapor wells should be located and documented as located adjacent to these utilities as potential preferential pathways to the townhomes.
  - d. **Lack of Assessment at the Former Dispenser Locations** - As discussed recently, shallow residual sources such as dispensers have not been investigated previously at the site. Due to the limited time available prior to the planned public meeting, it appears warranted to install similar soil vapor wells and collect soil samples for analytical analysis, to investigate both dispenser locations for Direct Contact and Outdoor Air Exposure in both LTCP depth zones, as well as the potential for Vapor Intrusion at a site that is not an active service station.

## **TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACEH ftp site (Attention: Mark Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the specified file naming convention below, according to the following schedule:

- **September 27, 2013 – Data Transmittal (tabulated soil and soil vapor analytical, bore and well construction logs, site and vicinity plan, etc.)**  
File to be named: RO350\_SWI\_R\_YYYY-mm-dd
- **October 28, 2013 – Soil and Groundwater Investigation**  
File to be named: RO350\_SWI\_R\_YYYY-mm-dd

Should you have any questions, please contact me at (510) 567-6876 or send me an electronic mail message at [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org). Because I will be out of the office until Wednesday September 4<sup>th</sup>, please also contact Dilan Roe at (510) 567-6767 or [dilan.roe@acgov.org](mailto:dilan.roe@acgov.org) should you have questions in the interim period of time.

cc. Kevin and Julia Hinkley, Kevin Hinkley Service, 5269 Crow Canyon Road, Castro Valley, CA 94552  
Geotracker, Electronic File

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*PDF copies of case files can be downloaded at:*

*<http://www.acgov.org/aceh/lop/ust.htm>*