

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SENT
11-15-05

November 14, 2005

Mr. Mark Inglis
Chevron
6001 Bollinger Canyon Rd., Room K2256
San Ramon, CA 94583-2324

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Dear Mr. Inglis:

Subject: Fuel Leak Case RO0000383, Former Chevron Station 9-0260, 21995 Foothill Blvd., Hayward, CA

Alameda County Environmental Health (ACEH) staff has received and reviewed the November 8, 2005 Email Addendum from Cambria clarifying the proposed interim remediation and groundwater monitoring at the subject site. Your work plan targets shallow on-site petroleum contamination likely not affected by your prior dual phase extraction (DVE) system. Your belief is that remediation of this residual contamination will be reflected in decreased concentrations in the down-gradient wells. Our office approves of this work plan. We have the following technical comments we request you address when performing the proposed work.

TECHNICAL COMMENTS

1. The construction details for the proposed DVE wells was not specified in the work plan, however, upon discussion with your consultant, it appears that these wells will be screened from approximately 10-20' bgs. Please confirm this assumption prior to performing the proposed work.
2. We concur with the suggestion that the remediation system be expanded to include the deeper sands, if warranted. Your reports following the initiation of the extraction system should comment on need for this additional remediation.
3. Seven deep monitoring wells, based upon accessibility, are proposed to monitor the deep permeable zones identified in the previous CPT borings. This data will be used to confirm or refute the results of the earlier grab samples. We concur with this proposal and recommend that well construction be done to monitor multiple depths. We request that you use either well clusters or multi-channel wells to accomplish multi-level groundwater sampling.
4. The prior 8/97 clean-up goal of 1900 ppb benzene in groundwater for residential exposure is conditionally accepted as the on-site goal and is based upon groundwater volatilization to indoor air being the pathway of concern, low/moderate permeable soil type, 10^{-5} acceptable risk and a stable plume posing no risk to off-site receptors. Please be aware should these conditions not be the case, additional sampling and/or remediation may be necessary.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) now request submission of reports in electronic form. The electronic copy is intended to replace the need for a paper copy and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all reports is required in Geotracker (in PDF format). Please visit the State Water Resources Control Board for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

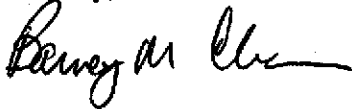
Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6765.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: files, Donna Drogos

Mr. Robert Foss, Cambria Environmental, 5900 Hollis St., Suite A, Emeryville,
CA 94608

11_9_05 21995 Foothill Blvd

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SCWT
7-23-04

July 22, 2004

Ms. Karen Streich
ChevronTexaco
P.O. Box 6012
San Ramon, CA 94583-2324

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Dear Ms. Streich:

Subject: Additional Subsurface Investigation Workplan for Chevron Station #9-0260,
21995 Foothill Blvd., Hayward, CA, RO0000383

Alameda County Environmental Health staff has reviewed the case file for the referenced site including the May 27, 2004 Additional Subsurface Investigation Workplan, submitted by Cambria, your consultant. This work plan responds to the County's April 7, 2004 letter requesting a soil and water investigation (SWI), a site conceptual model (SCM) and a corrective action plan (CAP). The results of the proposed work plan will be used to refine the SCM and formulate a CAP, which should be submitted as requested below.

Our office generally concurs with the work plan, however, we require you address the following technical comments when performing the proposed work and submit the technical reports requested below.

TECHNICAL COMMENTS

1. **Preferential Pathway Study** - Our office has received the June 7, 2004 Conduit Study also requested in the County's April 7, 2004 letter. The study concludes that the utility trenches identified have not resulted in preferential groundwater migration. Upon completion of the additional subsurface investigation please determine if any other conduits or preferential pathways for dissolved or free product migration have been identified or appear to be possible based upon this new information.
2. **Public Notification** - Our office informed to you that we have no objections to the draft neighborhood notification sent to our and the City of Hayward's attention, other than a minor change in our agency's name. This notification should facilitate the door-to-door survey proposed in your work plan and should be sent out ASAP. Should well(s) be identified, please make arrangements to collect and analyze a water sample or confirm their proper decommissioning.
3. **On-site Confirmation Sampling** - Six boring samples are proposed onsite to evaluate the effectiveness of previous remediation efforts. Their locations have been based upon previous soil boring results. One boring should also be located within the center of the former UST pit. These borings are proposed as a separate mobilization from the other CPT borings. This is acceptable since the depth of soil and groundwater samples from these onsite borings should be comparable to those taken during the CPT investigation. Prior to performing this work, please indicate the location of the boring within the former

UST pit and specify the depths of soil and groundwater samples and their analytical regime.

4. **Contaminant Plume Definition** - Fourteen CPT borings are proposed along three transects perpendicular to the assumed groundwater gradient. The transects will be along the down-gradient edge of the property, approximately 300' further down-gradient to assess potential impact to residents and approximately 600' down-gradient of the source area to assess impact to San Lorenzo Creek and determine the distal end of the plume. The borings are proposed to a maximum depth of 60' bgs. Although this would appear acceptable, please allow the results of the CPT investigation to dictate the total depth of your borings. Borings should be deep enough to define the vertical extent of contamination. Samples shall be collected at five-foot intervals, at the capillary fringe, at lithologic changes and at obvious signs of contamination. Water samples shall be collected from permeable zones. The water samples should be collected from a no more than 2' of exposed screen.
5. **Vapor Samples**- Vapor samples will be collected from the CPT locations in the center transect and the down-gradient edge transect. Sample depths proposed are 8-9' bgs and 12-13' bgs. Please also include vapor sampling from 5' depth or in accordance to the most current "Interim Guidance for Active Soil Gas Investigation" (ASGI). The other depths may be sampled until either groundwater is encountered or no VOCs are encountered, whichever comes first. Please insure your sampling is performed in accordance to the most current ASGI.
6. **Groundwater Monitoring Schedule**- Our office has reviewed the proposed monitoring schedule in Table 1 of your site conceptual model. We concur with the recommended sampling schedule with the exception of that proposed for MW-18, which should be sampled semi-annually, in the 2nd and 4th quarters like the others. In addition, we request that wells MW-7 and MW-18 be surveyed and incorporated into future groundwater contour maps. Also, well P-1, should be sampled semi-annually. Should there be concern regarding the validity of the sample from this well, a replacement well should be proposed. We concur with the SCM recommendation for evaluating potential impact to the creek and believe that either P-1 or a well in the same general location should be included in the sampling program.
7. **Cambria's Concentration Trend Assessment is Unpersuasive** - ACEH has reviewed Cambria's "concentration trend assessment" which calculated decay rates and half lives for TPHG, benzene and MTBE. Such calculations are then used to estimate the time required to reach a water quality objective. We have significant concerns regarding the scientific rationale Cambria used in their evaluation for the following reasons:
 - a) **Causes of Attenuation** - Cambria fails to present a thorough discussion of other possible causes for their apparent "attenuation rate" such as:
 - **Source Depletion** - The decrease in contamination concentration could be due to source depletion where the source and the dissolved contaminant is simultaneously decreasing. This would be reflected in a plot as declining concentrations of the compound being present in samples from the well over time.

- **Lateral and/or Vertical Plume Migration** - The decrease in contamination concentration could be due to migration of the plume away from the monitoring wells. Dissolved plumes can move laterally and vertically away from a monitoring well with changes in groundwater flow direction. Concentration vs. time plots would show declining concentrations of the compound being present in samples from the well over time.
 - **Biodegradation** - Declining concentrations could be due to biodegradation. However, biodegradation rates must be increasing over time (or the source depleting) at the monitoring locations to yield plots of decreasing concentrations in samples collected over time. Otherwise, if biodegradation is occurring at a constant rate, the concentrations of the compound in samples from the well would be constant over time (contaminant concentrations equal what is flowing into the monitoring point minus what is being degraded.) Additionally, biodegradation would need to be demonstrated by several lines of evidence, such as measurement of by-products, consumption of electron acceptors, concentration versus distance plots using appropriately located and constructed monitoring wells.
- b) **Applicability of Cambria's Attenuation Rates** - Cambria's application of their attenuation rates bears some additional considerations.
- **Rates for Apparent MTBE Attenuation** - If the decreases in MTBE concentration over time are due to preferential dissolution of MTBE from the residual NAPL (i.e., source depletion), then the calculated "rates" have nothing to do with biodegradation. Further, MTBE dissolution rates can be quite rapid at some sites depending on the initial mole fraction and depletion mechanisms (e.g., the rate of groundwater flow through the residual source, whether or not DVE was occurring, etc.). The calculation of an attenuation rate for MTBE biodegradation is not as easily determined as has been done in the report. Very little data exists on this rate in regards to MTBE. Rates for MTBE biodegradation would be site specific and must be actually measured using field tests and measured data.
 - **Assumption that Attenuation Rates Would be Similar at Low Concentrations** - We note that the range of concentrations used by Cambria in their concentration vs. time plots are in the tens of thousands to hundreds of thousands of ppm range. Cambria assumes that their calculated 1st order decay rate is applicable at lower concentrations. However, rates of microbial reactions often decrease at lower concentrations following zero-order kinetic models. This is because the growth and activity of the hydrocarbon-degrading microbial communities decline as the substrate (i.e., the hydrocarbons) becomes limited. Therefore, it is inappropriate for Cambria to extrapolate a "rate" calculated at high concentrations to conditions where concentrations are much lower (i.e., near the MCL), where the low concentrations of the hydrocarbons may be rate limiting.

TECHNICAL REPORT REQUEST

Please submit the following technical reports according to the following schedule:

60 Days from the Completion of Additional Subsurface Investigation- Subsurface Investigation Report which incorporates all data from the investigation, including a revised SCM, revised cross-sections and isopachs, work plan for groundwater well installations and any other task necessary to refine the SCM. If the SCM is validated, your CAP should be submitted and include at least two technically and economically feasible methods to restore and protect beneficial uses of water and meet the cleanup objectives for each contaminant established in the CAP.

January 15, 2005- Quarterly Report for 4th Quarter 2004

April 15, 2005- Quarterly Report for 1st Quarter 2005

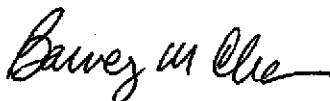
These reports and work plans are being requested pursuant to the H&S Code Section 25297.1 (Div.20, Ch.6.7). **Each technical report shall include conclusions and recommendations for the next phases of work required at the site should more appear necessary to refine the SCM.** We request that all required work be performed in a prompt and timely manner, as suggested by the noted schedule, above. Revisions to this schedule shall be requested in writing with appropriate justification for anticipated delays.

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that all work plans and technical reports containing professional geologic or engineering evaluations and/or judgments be completed under the direction of an appropriately-registered or certified professional. This registered or certified professional shall sign and wet stamp all such reports and work plans.

All reports and work plans are to be submitted under cover, signed under penalty of perjury, by the Responsible Party(ies) who have taken a lead role in compliance with corrective action directives.

If you have any questions, I can be reached at (510) 567-6765.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

c: B. Chan, D. Drogos
Hugh Murphy, Hayward Fire Department
Bob Foss, Cambria Environmental Technology, Inc., 5900 Hollis St., Suite A,
Emeryville, CA 94608

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO0000383

April 7, 2004

Ms. Karen Streich
ChevronTexaco
P.O. 6012
San Ramon, CA 94583-2324

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: SWI, SCM and CAP for Chevron Station #9-0260, 21995 Foothill Road, Hayward, CA

Dear Ms. Streich:

This letter follows a review of the Cambria Environmental Technology, Inc. (Cambria) *Site Conceptual Model* dated January 30, 2004, and our 05 April 2004 meeting to discuss the cited Cambria document and future project objectives. This letter presents a request to complete a Soil and Water Investigation (SWI), update the current Site Conceptual Model (SCM), and prepare a Corrective Action Plan (CAP) for the subject site in accordance with California Code of Regulations (CCR), Title 23, Division 3, Chapter 16, Article 11, "Corrective Action Requirements"; State Water Resources Control Board Resolution 9249, "Policies and Procedure for Investigation, Cleanup and Abatement of Discharges Under Water Code Section 13304"; and the Regional Water Quality Control Board (Regional Board) Water Quality Control Plan for the basin.

The following technical comments address investigation and related performance objectives that shall be considered as part of the required SWI, SCM and CAP. **We request that you prepare and submit a work plan for the SWI by May 21, 2004, that addresses each of the following comments.**

TECHNICAL COMMENTS

1. Preferential Pathway Study

A utility conduit study has not been prepared for the site. The current SCM notes that, based on depth to groundwater data, such a study does not appear necessary. However, a preferential pathway study does appear necessary to not only substantiate this initial impression, but also to determine if utilities may have affected transport of non-aqueous phase liquid (NAPL) in the unsaturated zone.

You may present the preferential pathway study, utility conduit map(s), and professional interpretation in the pending SWI workplan.

2. Contaminant Plume Definition – Soil and Groundwater

The purpose of contaminant plume definition is to determine the *three-dimensional* extent of contamination in soil and groundwater, including a determination of 3-D extent of impacts in the source area(s) and released contaminant mass, and a demarcation of potential geogenic and anthropogenic flow pathways.

The Cambria SCM correctly identifies a number of data gaps, particularly within the more distal portions of the plume, that currently limit the ability to fully understand the local hydrogeology and hydrocarbon distribution, and potential risks to off-site receptors. The current off-site well network is areally limited, as is the utility of the associated soil and groundwater data. An understanding of residual, post-remediation soil impacts within the source area (site proper) appears prudent to better evaluate on-site risk. Consequently we agree with the general conclusions and recommendations presented by Cambria in the SCM regarding an anticipated scope of work.

We therefore request a three-dimensional investigation of both the source area(s) and as off-site transect(s) oriented normal to the trend of apparent groundwater flow. The vertical distribution of impacts is to be determined. Mass-balance calculations are to be completed for the source area(s). Vertical groundwater gradients are also to be determined. The SWI work plan should present your plan to accomplish these tasks.

Conventional investigation techniques and monitoring well networks currently used at fuel leak sites, including this one, are generally insufficient to adequately characterize impacts. It is recommended that your investigation initially incorporate expedited site assessment techniques and borings. The borings are to be continuously cored and logged, with close attention paid to changes in lithologies that might facilitate solute transport (e.g., higher permeability stringers or horizons in otherwise fine grained sediments). The methodology employed should minimize the potential for cross-contamination.

Soil samples should be collected for laboratory analysis at 5-foot intervals, areas of obvious contamination, the soil/groundwater interface, and at each lithologic change noted during boring advancement, at a minimum. Water samples are to be collected at discrete depths to total depth explored. Total boring depths should be based on anticipated local hydrogeology following review of published literature, logs of nearby production wells, local knowledge of multiple water-bearing zones, and other available technical resources. We also recommend that you collect soil vapor samples, if possible, to add yet another layer of data to further evaluate risks to residential receptors down gradient of the subject site.

Detailed cross-sections and/or fence diagrams, structural contours and isopachs, and rose diagrams for groundwater flow (incorporating all historic data), should be subsequently incorporated into the final SWI report. Cross-sections should be scaled to clearly illustrate subsurface lithologies, including the locations of stringers and other zones of relatively higher permeability, particularly in those areas where such zones may be intercepted by buried utilities.

Final well locations and screen depths and intervals, to be proposed in the final SWI report, will be substantially based on the results of the SWI and refined SCM. The monitoring of multiple discrete water-bearing zones with short-screened intervals is anticipated. Generally, these screened intervals should not be greater than 2' in length. We will expect that the SWI Report will propose the locations of such wells, the anticipated well screen depths, their configurations (e.g., well cluster or multi-level), and the reasoning behind the location and configuration of each.

Discuss your proposal for performing this work outlined, above, in the SWI work plan. The results of the conduit study are to be presented and discussed in the SWI work plan to help justify the proposed scope of work. Expedited site assessment tools and methods are a scientifically valid and cost-effective approach to fully define the three-dimensional extent of the plume. Technical protocol for expedited site assessments are provide in the US EPA "*Expedited Site Assessment Tools for Underground Storage Tank Sites: A guide for Regulators*" (EPA 510-B-97-001), dated March 1997.

3. Site Conceptual Model

A SCM is a set of working hypotheses pertaining to all aspects of the contaminant release, including site geology, hydrogeology, release history, residual and dissolved contamination, attenuation mechanisms, pathways to nearby receptors, and likely impacts to receptors. The SCM is used to identify data gaps that are subsequently filled as the investigation proceeds. As the data gaps are filled, the working hypotheses are modified, and the overall SCM is refined and strengthened. Subsurface investigations continue until the SCM no longer changes as new data are collected. At this point the SCM is considered "validated". The validated SCM forms the foundation for developing the most cost-effective final Corrective Action Plan (CAP).

The current SCM identifies several areas where additional data are needed to fully understand local hydrogeology, hydrocarbon distribution, and potential risks to sensitive receptors. As new data are collected and analyzed, the SCM should be refined to reflect this. The revised SCM should be incorporated into the final SWI report.

Your attention is directed to the cited API Publication No. 4699 as a resource for development of the SCM. Your attention is also directed to the State Water Resources Control Board (SWRCB) "*Guidelines for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates, Final Draft*", dated March 27, 2000, as well as the June 2002 ChevronTexaco Energy Research and Technology Company technical bulletin entitled "*Mass Flux Estimates to Assist Decision-Making*" to help in development and strategies for refinement of the SCM, among other related tasks.

4. Well Survey

Surveys searching for permitted wells within $\frac{1}{2}$ and $\frac{3}{4}$ mile of the subject site were conducted in 1987 and 1988, respectively. Neither search identified permitted production wells east of San Lorenzo Creek that are directly down gradient of the site. The Cambria SCM identified a need to conduct a door-to-door survey of the neighborhood to search for unpermitted production wells. This task appears prudent. We ask that this initial effort include all properties between Foothill Boulevard and San Lorenzo Creek, and Hazel Street and Kimball Avenue.

This search may be expanded based on the results of the pending SWI.

Another recommendation that was brought up at our April 5 meeting was to draft a brief information bulletin to provide the residents of the neighborhood where the door-to-door well search effort would occur with information explaining the purpose behind this effort, as well as providing other project information, including contact names and phone numbers. This appears to be a prudent task to coincide with the well search, and we ask that Chevron begin development of it. Please be certain that before any information is published and distributed, that this office and that of the Hayward Fire Department be consulted and our comments incorporated into the final product.

5. Corrective Action Plan

The purpose of the CAP is to use the information obtained during investigation activities to propose cost-effective final cleanup objectives and remedial alternatives for both soil and groundwater impacts,

including those caused by MtBE and other fuel oxygenates, that will adequately protect human health and safety, the environment, eliminate nuisance conditions, and protect water resources.

A final CAP for the soil and groundwater impacts caused by an unauthorized release at the site will be requested upon completion of the SWI in accordance with the schedule specified below. The CAP shall address at least two technically and economically feasible methods to restore and protect beneficial uses of water and to meet the cleanup objectives for each contaminant established in the CAP. The CAP must propose verification monitoring to confirm completion of corrective actions and evaluate CAP implementation effectiveness.

TECHINICAL REPORT REQUEST

Please submit technical reports according to, or otherwise comply with, the following schedule:

May 21, 2004 – Work plan for Soil and Water Investigation

60 Days from Completion of Soil and Water Investigation – Soil and Water Investigation Report which incorporates all data generated during completion of SWI; must include a revised SCM, well survey, etc., as well as a work plan for well installation and other tasks deemed necessary to refine the SCM and evaluate risks.

90 Days after Submittal of Soil and Water Investigation Report - Corrective Action Plan

July 15, 2004 – Quarterly Report for the 2nd Quarter 2004

October 15, 2004 – Quarterly Report for the 3rd Quarter 2004

January 15, 2005 – Quarterly Report for the 4th Quarter 2004

April 15, 2005 - Quarterly Report for the 1st Quarter 2005

These reports and work plans are being requested pursuant to the Regional Board's authority under Section 13267(b) of the California Water Code. **Each technical report shall include conclusions and recommendations for the next phases of work required at the site should more appear necessary to refine the SCM.** We request that all required work be performed in a prompt and timely manner, as suggested by the noted schedule, above. Revisions to this schedule shall be requested in writing with appropriate justification for anticipated delays.

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that all work plans and technical reports containing professional geologic or engineering evaluations and/or judgments be completed under the direction of an appropriately-registered or certified professional. This registered or certified professional shall sign and wet stamp all such reports and work plans.

All reports and work plans are to be submitted under cover, signed under penalty of perjury, by the Responsible Party(ies) who have taken a lead role in compliance with corrective action directives.

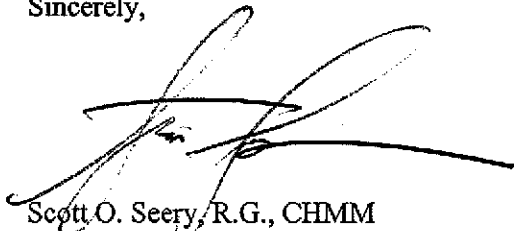
Ms. Karen Streich
Re: Chevron Station #9-0260, 21995 Foothill Blvd., Hayward
April 7, 2004
Page 5 of 5

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the Alameda County District Attorney, for possible enforcement follow up. Enforcement follow up may include administrative action or monetary penalties of up to \$10,000 per day for each day of violation of the California Health and Safety Code, Division 20, Chapter 6.76.

If you have any questions, I can be reached at (510) 567-6783.

Sincerely,

A handwritten signature in black ink, appearing to read 'Scott O. Seery', with a large, sweeping flourish extending to the right.

Scott O. Seery, R.G., CHMM
Hazardous Materials Specialist

c: Roger Brewer, RWQCB
Dave Charter, SWRCB UST Fund
Hugh Murphy, Hayward Fire Department
Bob Foss, Cambria Env. Technology, Inc., 1144 - 65th St., Ste. B, Oakland, CA 94608
D. Drogos

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO 383

September 5, 2003

Ms. Karen Streich
ChevronTexaco
P.O. Box 6012
San Ramon, CA 94583

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Re: Chevron Station 9-0260, 21995 Foothill Blvd., Hayward – Exposure Assessment Workplan

Dear Ms. Streich:

This office has completed review the Cambria Environmental Technology, Inc (Cambria) *Exposure Assessment Workplan* dated April 16, 2003. Review was completed in context with the December 20, 2002 Los Angeles Regional Water Quality Control Board (LARWQCB) *Advisory – Active Soil Gas Investigations* (ASGI) guidance document upon which the Cambria work plan scope was based. The San Francisco Bay RWQCB endorses the use of this guidance document for projects located in Region 2.

This office responded to the Cambria work plan with comments via e-mail on June 24, 2003. Subsequently, Cambria submitted a *Revised Exposure Assessment Workplan* dated July 11, 2003. This document has also been reviewed in context with the cited ASGI.

The July 11, 2003 Cambria work plan has been accepted for implementation as a means to 1) determine depth-discrete soil vapor concentrations near the southwestern property boundary, and 2) assist in determining potential risks to on- and off-site receptors in the vicinity of the soil vapor sample locations. Approval is based on adherence to all relevant provisions of the ASGI including, but not limited to, the following:

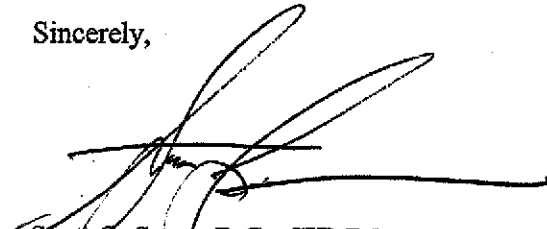
1. Final report shall comply with all provisions of ASGI 2.1.3
2. Purge volume tests should fully comply with provisions of ASGI 2.3.2 and 2.3.3
3. Soil gas sampling using Summa canisters should fully comply with provisions of ASGI 2.6.1 and 2.6.2
4. Analysis and collection of soil gas samples should fully comply with the QA/QC requirements outlined in ASGI 2.7.1.A, B and C
5. Samples should also be collected for methane analysis in adherence to provisions of ASGI 2.7.8.C and 2.7.9
6. Soil test parameters shall comply with ASGI 3.0 – 3.7

Ms. Karen Streich
Re: 21995 Foothill Blvd., Hayward
September 5, 2003
Page 2 of 2

Please be reminded that all reports and work plans are to be submitted under cover, signed under penalty of perjury, by the Responsible Party(ies) who have taken a lead role in compliance with corrective action directives.

Please contact me when fieldwork has been scheduled or should you have any questions. I can be reached at (510) 567-6783.

Sincerely,



Scott O. Seery, R.G., CHMM
Hazardous Materials Specialist

c: Betty Graham, RWQCB
Dave Charter, SWRCB UST Fund
Hugh Murphy, Hayward Fire Dept.
Robert Foss, Cambria Env. Tech., Inc., 5900 Hollis St., Ste. A, Emeryville, CA 94608
D.Drogos

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



12-18-01

20383

STID 6528

December 13, 2001

Mr. Thomas Bauhs
Chevron U.S.A. Products Company
P.O. Box 6004
San Ramon, CA 94583-0904

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Former Chevron at 21995 Foothill Blvd., Hayward, CA

Dear Mr. Bauhs:

I have been requested to include Mr. Tony Dahl of Terra Vac for all correspondences from this office. Additionally per Mr. Jim Brownell of Delta Environmental this morning, Mr. Tony Dahl, who manages the remediation system at the above referenced site, has not received a copy of my letter dated November 6, 2001. Therefor, an extension was requested for this delay. **You may extend the submittal requirement for 30 days beyond the original Date.** As you are aware this letter was sent to you concerning the receipt of "Groundwater Monitoring and Sampling Report, dated October 11, 2001, submitted by Deanna L. Harding of Gettler-Ryan Inc., regarding the above referenced site. The following items were indicated:

1. During this period, the MW-5, MW-6, and MW-13 wells were all found dry. MW-9 well did not contain sufficient water for proper sampling.
2. MW-10 well could not be located and MW-16 well has been paved over. However, MW-16 well is of significance due to the fact that it contained 45,600ppb TPH-G and 2,130ppb of Benzene during the 5/21/01 analysis. Therefor, this well must be replaced specially since it is located down-gradient of the plume.
3. MW-4, MW-7, MW-8, and MW-12 wells were not sampled since they are sampled on a semi-annual schedule.
4. MW-14, MW-15, and MW-17 wells all revealed low or non-detect concentrations of the constituents.
5. MW-18 and then MW-11 contained the highest concentrations of the constituents. MW-18 well contained 32,000ppb, 1,200ppb, and 790ppb of TPH-G, Benzene, and MTBE respectively while MW-11 well contained 2,900ppb, 600ppb, and 100ppb of TPH-G, Benzene, and MTBE respectively.
6. Per figure 1 within this report, groundwater flow gradient is to the Southwest at 0.01 to 0.03 ft/ft.

7. This report does not indicated whether the Ground water extraction and Dual Vacuum Extraction (DVE) Remediation system still active and does not provide any status report on the overall performance and effectiveness of this system if it is still being used. Please provide sufficient information concerning this issue.

If you have any questions and or concerns, please call me at (510) 567-6876.

Sincerely,



Amir K. Gholami, REHS
Hazardous Materials Specialist

C: Ms. Deanna L. Harding, Gettler-Ryan Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Mr. Jim Brownell, Delta Environmental Consultants, Inc., 3164 Gold Camp Drive, Suite 200,
Rancho Cordova, CA 95670-6021 CA 95112-1105
Mr. Tony Dahl, Terra Vac, 5075 Commercial Circle, Unit A, Concord, CA 94520
Mr. Hugh Murphy, City of Hayward Hazardous Material Office, 777 B Street, Hayward,
CA 94541
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



11-7-01

P0383

STID 6528

November 6, 2001

Mr. Thomas Bauhs
Chevron U.S.A. Products Company
P.O. Box 6004
San Ramon, CA 94583-0904

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Former Chevron at 21995 Foothill Blvd., Hayward, CA

Dear Mr. Bauhs:

I am in receipt of "Groundwater Monitoring and Sampling Report, dated October 11, 2001, submitted by Deanna L. Harding of Gettler-Ryan Inc., regarding the above referenced site. Per this report the following was observed:

- During this period, the MW-5, MW-6, and MW-13 wells were all found dry. MW-9 well did not contain sufficient water for proper sampling.
- MW-10 well could not be located and MW-16 well has been paved over. However, MW-16 well is of significance due to the fact that it contained 45,600ppb TPH-G and 2,130ppb of Benzene during the 5/21/01 analysis. Therefore, this well must be replaced specially since it is located down-gradient of the plume.
- MW-4, MW-7, MW-8, and MW-12 wells were not sampled since they are sampled on a semi-annual schedule.
- MW-14, MW-15, and MW-17 wells all revealed low or non-detect concentrations of the constituents.
- MW-18 and then MW-11 contained the highest concentrations of the constituents. MW-18 well contained 32,000ppb, 1,200ppb, and 790ppb of TPH-G, Benzene, and MTBE respectively while MW-11 well contained 2,900ppb, 600ppb, and 100ppb of TPH-G, Benzene, and MTBE respectively.
- Per figure 1 within this report, groundwater flow gradient is to the Southwest at 0.01 to 0.03 ft/ft.
- This report does not indicate whether the Ground water extraction and Dual Vacuum Extraction (DVE) Remediation system still active and does not provide any status report on the overall performance and effectiveness of this system if it is still being used. Please provide sufficient information concerning this issue.

Should you have any questions, please call me at (510) 567-6876.

Sincerely,



Amir K. Gholami, REHS
Hazardous Materials Specialist

C: Ms. Deanna L. Harding, Gettler-Ryan Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568
Mr. Jim Brownell, Delta Environmental Consultants, Inc., 3164 Gold Camp Drive, Suite 200,
Rancho Cordova, CA 95670-6021 CA 95112-1105
Mr. Hugh Murphy, City of Hayward Hazardous Material Office, 777 B Street, Hayward,
CA 94541
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



02-13-01
R0383

STID 6528

July 12, 2001

Mr. Phil Briggs
Chevron U.S.A. Products Company
P.O. Box 6004
San Ramon, CA 94583-0904

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Former Chevron at 21995 Foothill Blvd., Hayward, CA

Dear Mr. Briggs:

This office is in receipt of the first quarter event of February 8, 2001, Groundwater Monitoring and Sampling Report dated May 16, 2001, submitted by Jim Brownell of Delta Environmental Consultants, Inc. regarding the above referenced site.

Please consider the following comments regarding this report:

- I understand that MW-4 thorough MW-9 and MW-11 thorough MW-13 are sampled on a semi-annual basis, while MW-10 and MW-14 thorough MW-18 are sampled on a quarterly basis.
- Ground water extraction and Dual Vacuum Extraction (DVE) remediation system is presently being performed at this site. However, I still do not have any status report on the overall performance and effectiveness of this system.
- Several wells contained high concentrations of petroleum hydrocarbon including Benzene and MTBE.
- Please ensure proper detection limit for all constituents such as MTBE in MW-18 indicates detection limit of 2,500ppb.
- I concur with the continuation of the Dual Vacuum Extraction (DVE) remediation along with the monitoring program already installed. Per this report as of February 1998, up to 2,347 gallons of petroleum hydrocarbon has been removed. However, a status report should be submitted to this office regarding this process.

Please be advised that Larry Seto of our office does not oversee the above referenced site. Therefor, forward all correspondence to me regarding the above referenced site.

If you have any questions, please call me at (510) 567-6876.

Sincerely,



Amir K. Gholami, REHS
Hazardous Materials Specialist

C: Mr. Jim Brownell, Delta Environmental Consultants, Inc., 3164 Gold Camp Drive, Suite 200,
Rancho Cordova, CA 95670-6021 CA 95112-1105
Mr. Hugh Murphy, City of Hayward Hazardous Material Office, 777 B Street, Hayward,
CA 94541
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



11-14-00

20383

STID 6528

November 13, 2000

Mr. Phil Briggs
Chevron U.S.A. Products Company
P.O. Box 6004
San Ramon, CA 94583-0904

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Former Chevron at 21995 Foothill Blvd., Hayward, CA

Dear Mr. Briggs:

I am in receipt of the first quarter 2000 Groundwater Monitoring dated April 24, 2000 regarding the above referenced site, submitted by Scott Boor of Blaine Tech Services, Inc. I have reviewed this document. I would like to make the following comments regarding this report:

- It does not indicate the present activities, which occur at the site. Please inform me as to whether the Dual Vacuum Extraction (DVE) remediation system is still being performed at this site and elaborate on its performance and overall effectiveness.
- There are several wells, which still contain high concentrations of petroleum hydrocarbon including Benzene and MTBE.
- Several wells such as Mw-4 were not sampled last two periods even though they contained high concentration of chemicals constituent. Please ensure that all wells are being sampled unless otherwise directed by this office.
- There is no Quarterly Groundwater Monitoring submitted past April 24, 2000. Please ensure that all monitoring reports are submitted in a timely manner.
- Please ensure proper detection limit for all constituents such as MTBE.
- As indicated previously I concur with the continuation of the Dual Vacuum Extraction (DVE) remediation, when possible, along with the monitoring program already installed.

Additionally, Madhulla Logan is no longer working at this office, please forward all correspondence to me regarding the above referenced site.

I look forward for the next groundwater monitoring and sampling report.

Should you have any questions and or concerns, please do not hesitate to call me at (510) 567-6876.

Sincerely,



Amir K. Gholami, REHS
Hazardous Materials Specialist

C: Mr. Scott Boor, Blaine Tech Services, Inc. 1618 Rogers Avenue, San Jose
CA 95112-1105
Mr. Hugh Murphy, City of Hayward Hazardous Material Office, 777 B Street, Hayward,
CA 94541
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



*Sent 11-29-99
Including CC's*

20383

STID 6528

November 24, 1999

Mr. Phil Briggs
Chevron U.S.A. Products Company
P.O. Box 6004
San Ramon, CA 94583-0904

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RE: Former Chevron at 21995 Foothill Blvd., Hayward, CA

Dear Mr. Briggs:

Thank you for the submittal of "Second Groundwater Monitoring Report for 1999" dated July 16th, 1999, regarding the above referenced site, submitted by Christine Lillie of Blaine Tech Services, Inc. I have reviewed this document. As you indicated the concentration of Benzene seems to have declined in MW-5, MW-7, MW-8, MW-9, MW-12, and MW-18 wells. At the same time there was increase of Benzene concentration in MW-4, MW-14, and MW-18 wells. I believe, this might be due to effectiveness of the remediation system and or the latter wells being "mostly" down/cross-gradient from the former wells, with the exception of the MW-4 well.

I concur with the continuation of the Dual Vacuum Extraction (DVE) remediation, when possible, along with the monitoring program already installed.

Additionally, please be advised that I will be overseeing the above referenced site.

I look forward for the next groundwater monitoring and sampling report.

If you have any questions and or concerns, please call me at (510) 567-6876.

Sincerely,

Amir K. Gholami, REHS
Hazardous Materials Specialist

C: Christine Lillie of Blaine Tech Services, Inc. 1618 Rogers Avenue, San Jose
CA 95112-1105
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SENT 10-26-99
including CO'S

PO383

October 25, 1999

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700

STID 6528

Mr. Phil Briggs
Chevron Products Company
6001 Bollinger Canyon Road
San Ramon, CA 94583-0804

RE: Property at 21995 Foothill Blvd., Hayward, CA 94541

LANDOWNER NOTIFICATION AND PARTICIPATION REQUIREMENTS

Dear Mr. Briggs:

This letter is to inform you of new legislative requirements pertaining to cleanup and closure of sites where an unauthorized release of hazardous substance, including petroleum, has occurred from an underground storage tank (UST). Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code requires the primary or active responsible party to notify all current record owners of fee title to the site of: 1) a site cleanup proposal, 2) a site closure proposal, 3) a local agency intention to make a determination that no further action is required, and 4) a local agency intention to issue a closure letter. Section 25297.15(b) requires the local agency to take all reasonable steps to accommodate responsible landowners' participation in the cleanup or site closure process and to consider their input and recommendations.

For purposes of implementing these sections, you have been identified as the primary or active responsible party. Please provide to this agency, within twenty (20) calendar days of receipt of this notice, a complete mailing list of all current record owners of fee title to the site. You may use the enclosed "list of landowners" form (sample letter 2) as a template to comply with this requirement. If the list of current record owners of fee title to the site changes, you must notify the local agency of the change within 20 calendar days from when you are notified of the change.

If you are the sole landowner, please indicate that on the landowner list form. The following notice requirements do not apply to responsible parties who are the sole landowner for the site.

LANDOWNER NOTIFICATION

Re: 21995 Foothill Blvd., Hayward

October 25, 1999

Page 2 of 2

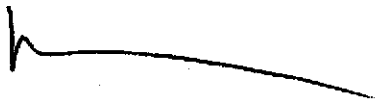
In accordance with Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code, you must certify to the local agency that all current record owners of fee title to the site have been informed of the proposed action before the local agency may do any of the following:

- 1) consider a cleanup proposal (corrective action plan)
- 2) consider a site closure proposal
- 3) make a determination that no further action is required
- 4) issue a closure letter

You may use the enclosed "notice of proposed action" form (sample letter 3) as a template to comply with this requirement. Before approving a cleanup proposal or site closure proposal, determining that no further action is required, or issuing a closure letter, the local agency will take all reasonable steps necessary to accommodate responsible landowner participation in the cleanup and site closure process and will consider all input and recommendations from any responsible landowner.

Please call me at (510) 567-6876 if you have any questions about the content of this letter.

Sincerely,



Amir K. Gholami, REHS
Hazardous Materials Specialist

cc: Chuck Headlee, RWQCB

Attachments: Sample letter 2 and Sample letter 3, which must be filled out by the Responsible Party and mailed to Alameda County.

Alameda County Health care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**"List of Landowners" form
(Sample Letter 2)**

**SUBJECT: CERTIFIED LIST OF RECORD FEE TITLE OWNERS FOR (Site
name and address)
(to be filled in by the primary responsible party and mailed to
Alameda County)**

(Note: Fill out item 1 if there are multiple site landowners. If
you are the sole site landowner, skip item 1 and fill out item 2)

1. In accordance with section 25297.15(a) of Chapter 6.7 of
the Health & Safety Code, I, (name of primary responsible
party), **certify that the following is a complete list of
current record fee title owners and their mailing addresses
for the above site:**

2. In accordance with section 25297.15(a) of Chapter 6.7 of
the Health & Safety Code, I, (name of primary responsible
party), **certify that I am the sole landowner for the above
site.**

Sincerely,

Signature of primary responsible party

Name of primary responsible party

Alameda County Health care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**"Notice of Proposed Action" form
(Sample Letter 3)**

SUBJECT: NOTICE OF PROPOSED ACTION SUBMITTED TO LOCAL AGENCY FOR
(site name and address)
(to be filled in by the primary responsible party and mailed to
Alameda county)

In accordance with section 25297,15(a) of Chapter 6.7 of the Health & Safety Code, I, (name of primary responsible party), certify that I have notified all responsible landowners of the enclosed proposed action. Check space for applicable proposed action(s):

- ☐ cleanup proposal (corrective action plan)
- ☐ site closure proposal
- ☐ local agency intention to make a determination that no further action is required
- ☐ local agency intention to issue a closure letter

Sincerely,

Signature of primary responsible party

Name of primary responsible party

cc: Names and addresses of all record fee title owners

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO#383

August 19, 1997

Phil Briggs
Chevron Products Company
6001 Bollinger Canyon Road, P.O. Box 5004
San Ramon, CA 94583-0804

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Re: Chevron Station, 21995 Foothill Blvd, Hayward, CA

Dear Mr. Briggs:

This Department received an addendum to the risk assessment, dated July 18, 1997, prepared by Terra Vac for the above referenced site. Based on the information submitted to this Department, the revised risk assessment is acceptable to this Department and the following cleanup levels (based on a 10-5 risk) have been established as remediation goals:

Chemical name	Soil		Groundwater	
	Commercial	Residential	Commercial	Residential
Benzene	1.1 ppm	0.4 ppm	4600 ppb	1900 ppb
Toluene	440 ppm	220 ppm	less than saturation	less than saturation

Please notify the City of Hayward Fire Department prior to initiating any field work. If you have any questions regarding the risk assessment, you may reach me at (510) 567-6764.

Sincerely,

Madhulla Logan
Hazardous Material Specialist

C: **Mr. Hugh Murphy**, City of Hayward Fire Department
25151 Clawiter Road. Hayward, CA - 94545

Robert Dahl, TERRA VAC
1651 Alvarado Street. San Leandro, CA - 94577

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO# 383

July 15, 1997

Phil Briggs
Chevron Products Company
6001 Bollinger Canyon Road, P.O. Box 5004
San Ramon, CA 94583-0804

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Re: Chevron Station, 21995 Foothill Blvd, Hayward, CA

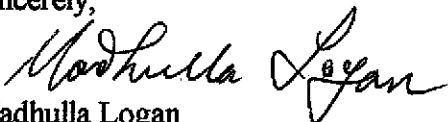
Dear Mr. Briggs:

I am in receipt of the report "Interim Remediation Work Plan", dated June 3, 1997 prepared by Terra Vac for the above referenced site. This report includes a remediation plan and a risk assessment (using ASTM's Risk Based Corrective Action (RBCA)). Based on a review conducted by this Department, the remediation plan is acceptable. However, the following issues regarding the risk assessment need to be clarified/ modified:

- On page 11 of the main document, mention has been made of collecting confirmatory soil samples to prove that the targeted cleanup level or Site Specific Target Levels (SSTL's) for benzene based on the RBCA results has been attained. It is also stated that if the cleanup goal is not attained, then a leachate test will be conducted to provide evidence on whether the residual hydrocarbons will impact groundwater. Since the risk assessment is based on the exposure pathway, "volatilization to indoor air" any concentrations above the calculated SSTL's will mean that there is a greater risk than the accepted levels of 10-5 for the future residents (or workers if commercial) to be exposed to benzene vapors. So this Department does not recommend leaving concentrations that are higher than the calculated SSTL's unless you can provide an acceptable rationale.
- There seems to be a difference in the input concentrations used for benzene as seen in Worksheet 9.3 for the residential scenario (8.8 ppm) vs commercial scenario (4.4 ppm). Please clarify.
- The risk assessment does not address the construction worker scenario. This scenario would be applicable for contaminants found in the surface soils less than 5 feet depth.
- A total porosity value of 0.30 and a volumetric air content value of 0.01 has been used in the Tier 2 risk assessment. Please provide a reference or site specific measurements to validate using these values.

Please provide an addendum to the risk assessment to clarify the above mentioned issues. If you have any questions you may reach me at (510) 567-6764.

Sincerely,



Madhulla Logan

Hazardous Material Specialist

C: **Mr. Hugh Murphy**
City of Hayward Fire Department
25151 Clawiter Road
Hayward, CA - 94545

Robert Dahl
Terra Vac
1651 Alvarado Street
San Leandro, CA - 94577