

City Blue Extraction System Review
2/19/92

- need to re-initiate quarterly monitoring in all mws where free product is not present. whenever free product has been eliminated (via groundwater extraction) then quarterly sampling should be resumed in that well.
- when initiating gw sampling if halocarbons were never analyzed run for halocarbons (at least initially) IF halocarbons are negative then analysis for them can be discontinued.
- what size are extraction wells?
- Secondary containment for treatment system

Called Cheryl Nelson 2/19/92

Dave Scribner called 2/20/92

IMPORTANT MESSAGE

FOR Scott

DATE 8-25-92 TIME 3:00 ~~AM~~ PM

M. Dan Sawislak

OF Housing for Independent

PHONE 408-283-2225 people

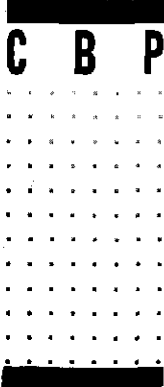
TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE 1700 Jefferson St.
Oakland, CA 94612

returned call 8/26 - left message
Site
#4148

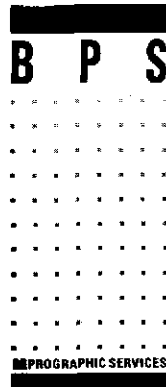
SIGNED [Signature]

U7HD IN U.S.A.



CATHY BAILEY

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HOUSING FOR INDEPENDENT PEOPLE, INC.

Meeting on 2-2-93

AL DiLUDOVICO
Executive Director

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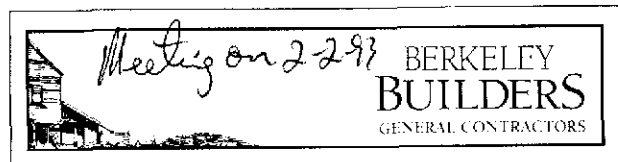
Harding Lawson Associates
A Subsidiary of Harding Associates



David R. Kleesattel
Associate Hydrogeologist

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WS040

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4148 Blue Print Service, 1700 Jefferson Street, Oakland, CA 94612

10/17/95 Review Harding Lawson Associates (HLA) July 25, 1995 "Quarterly Report" April 4, 1995 through July 3, 1995. The existing biodegradation groundwater treatment system began operation in June 1992. Groundwater is extracted from MW-1A and MW-4 for treatment in a 3000-gallon bioreactor tank. The treated water is then passed through two carbon adsorption units before being discharged to the sanitary sewer. During this reporting period the groundwater treatment system has treated and discharged approximately 110,000 gallons of water to the sanitary sewer. Separate-phase gasoline is no longer being detected or recovered by the oil/water separator from the extraction wells since December 1994. Monitoring well MW-5 is an offsite well (down gradient) which has consistently shown the highest concentrations of benzene compared to the other three wells.

10/20/95 Review HLA "Quarterly Report July 4, 1995 through September 30, 1995" - dated October 6, 1995. During this reporting period the groundwater treatment system has treated and discharged approximately 92,000 gallons of water to the sanitary sewer. Because separate-phase gasoline is no longer being detected or recovered by the oil/water separator from the extraction wells since December 1994, HLA has taken the oil/water separator out of service.

The analytical results for the sample of the effluent to the sanitary sewer contained benzene, toluene and xylenes which exceeded the discharge limits of 5 ug/L for these compounds. The detected concentrations were 15 ug/L-benzene, 9 ug/L toluene and 9 ug/L-xylenes. HLA immediately stopped all discharge from the treatment system on September 19, 1995, when they first received the analytical results of the water samples. HLA has determined that the cause of the effluent discharge to be the saturation of the carbon vessel. These saturated carbon vessels (CB-1 and CB-2) were eventually replaced with new carbon vessels.

HLA will monitor in carbon vessel influent and effluent more frequently. HLA will collect and analyze influent and effluent samples at a minimum frequency of once every 60 days of 80,000 gallons discharged, whichever comes first.

Groundwater flow was measured to be in a north-northeasterly direction. TPHg and BTEX analytes continue to be documented in all four monitoring wells (MW-1A, MW-3, MW-4 and MW-5), with well MW-1A and MW-5 being the wells with the highest concentrations of contaminants.

Talked to Tom Peacock concerning down gradient concentrations of contaminants being detected in MW-5. Monitoring well MW-5 has consistently shown the highest concentrations of contaminants. This well is approximately 170 feet north-northeast of the location of the former on-site USTs. Tom said that the groundwater extraction system was installed before he acquired the case, and that the extent of contamination has never been defined to his knowledge. He said he

wrote letters requesting further investigations and has had no response. Will review file more closely. Left message for David Scrivner of HLA requesting that he call me to discuss the site.

1/23/96

Review HLA "Quarterly Report"-dated 1/16/96. During this reporting period the GW treatment system has treated and discharged approximately 86,000 gallons of water to the sanitary sewer. During this period total system down-time was approximately 9 days. The analytical results from the November 16, 1995 effluent water samples exceeded the discharge requirement for xylene. Xylene was detected at a concentration of 10 ppb, with the discharge limit for xylene being 5 ppb. Groundwater samples from the four (4) monitoring wells were sampled and analyzed for TPHg and BTEX. Detectable concentrations of TPHg and BTEX went up in wells MW-1A and MW-3 and down in MW-4 and MW-5 for the 12/13/95 sampling event, with the exception of xylene in well MW-1A which went down from the 9/19/95. Talked with SOS to determine what the next step should be since levels in the off-site well MW-5 exceed even the very conservative 10 -4 Tier 1 RCBA look-up values. SOS said that I should send a letter requesting a risk-based site assessment or determine what additional steps need to be taken to effectively remediate the health and safety risks associated with this site to conform to either a Tier 2 or even possibly a Tier 3 risk-based assessment. Draft letter requesting additional risk based assessment.

Draft of letter after SOS review.

Review HLA "Work Plan Offsite Groundwater Investigation"-dated 1/22/96. Prepare draft of approval letter. Review file. Conferred with BC about whether soil samples should be collected from the capillary fringe during the installation of MW-6 and the temporary well points. This information would be helpful in preparing the risk-based site assessment which was requested in my letter dated 1/24/96, for the exposure pathway-soil volatilization to indoor air. Barney's not sure this information would be necessary, will talk with him about it again today.

1/24/96

Call from David Schriver of HLA (602-8212) requesting that I review the work plan. Review file.

1/25/95
ab?

Draft of approval letter for BC review. Review file to see if extent of soil contamination has ever been defined. Review October 4, 1989 HLA "Additional Investigations" report. This report documents the results of a soil-vapor survey done to delineate the extent of impacted petroleum hydrocarbons in soils. The attempt to advance the soil-vapor probes was unsuccessful due to the fact that reinforced concrete slabs were found beneath the initial asphalt surface and could not be penetrated. A total of eight sampling locations were attempted both on-site and off-site. However, only one soil gas sample was collected and analyzed, being taken at a depth of only 5' bgs, and detected only 1 ppb-toluene, 2 ppb-xylene and 5 ppb-total petroleum hydrocarbons. Call to David Schriver of HLA-left

message. The file is missing a copy of a preliminary investigation which was performed by Garcia/Wagner and Associates-dated February 17, 1987. Call from David Schriver to determine whether soil samples would be analyzed from the additional well (MW-6) and the temporary well points. He said that soil sampling would not be a problem, and that it would be preferred since it would provide valuable information for the requested site assessment.

- 1/30/96 Received copy of May 4, 1987 report which documents the advancement of three (3) soil borings which was performed in February 1987. Of these three (3) borings (borings 1, 2 and 3), only boring 1 encountered ground water, at a depth of approximately 25' below ground surface (bgs). Borings 1, 2 and 3 were completed to depths of 40' bgs, 25' bgs and 5' bgs, respectively. No petroleum odors were detected in any of the three borings. No samples were analyzed for petroleum hydrocarbon contamination.
- 2/21/96 Call from Rosemary Wood of Harding Lawson Associates out of the Novato office. She would like to have a teleconference with myself and one of HLA colleagues to determine the appropriate parameters for the RCBA assessment I requested in my January 6, 1996 letter. I asked Ms. Wood if she would fax me a list of questions that HLA would ask during the teleconference in order that I could prepare for them. I asked Madhulla if she would be present during the teleconference to assist me. She stated that Tuesday February 27th (am) would be okay.
- 2/28/96 Call from Rosemary Wood of HLA. She would like to set up the teleconference once I have reviewed the fax with the questions.
- 3/1/96 Call from Rosemary Wood of HLA. Update Hazmat database.
- 3/5/94 Call from/to Rose Wood of HLA. Conferred with Madhulla, tomorrow (Weds) at 3:00 pm will be fine. Call to Rose Wood to confirm Weds at 3:00 pm.
- 3/6/96 Call to Rose Wood to give her phone number for teleconference. Prepare for teleconference-Review file and RBCA. Teleconference with Rose Wood, and David Scriver of HLA, Madhulla Logan and myself.
- 4/8/96 Call from David Scriver of HLA to inform me that the additional off-site well would be installed on Weds. the 10th.
- 4/10/96 Initial site visit for the installation of the additional off -site MW. They were not installing the MW, but an underground service was there to locate utilities. There is a lot of construction occurring downtown in the vicinity of the site. Will review file to determine whether construction worker receptor scenario was to be determined in the Tier 2 RCBA risk assessment being done for this site. Review file. This construction worker receptor scenario is indeed being assessed by HLA.

4/23/96 Review HLA "Quarterly Report" - dated April 18, 1996. The pump and treat system does not appear to be operating efficiently. Concentrations in the down gradient well have not decreased significantly since it was installed and became operational in June 1992. Concentrations in down gradient well MW-5 (in ug/L):

TPHg	benzene	toluene	ethyl benzene	xylenes
August 1, 1991				
120,000	20,000	14,000	1,900	4,900
March 6, 1996				
51,000	15,000	2,800	2,000	2,400

To date 671,025 gallons of groundwater has been treated. Analysis of bioreactor effluent for this sampling period detected TPHg-33 mg/L, benzene-460 ug/L, toluene-360 ug/L, ethyl benzene-59 ug/L and total xylenes-3,300 ug/L. This is a small fraction of what concentrations are being detected in the monitoring wells. Call to David Scrivner of HLA concerning this matter and left message.

5/20/96 Voice mail from David Scrivner on 17th. They are reassessing their Tier 2 RBCA parameters. Performing flux measurements very costly, and wonder if ambient air measurements could be used to generate defensible Tier 2 data. Also, GW pump and treat feasibility study performed on site. He'll send me a copy.

8/1/96 Call to David Scrivner of HLA. He is no longer employed at HLA, and new contact is a Mr. David Kleesattel. Requested a copy of the feasibility study for the pump and treat system. He stated that he will get a copy of the report to me hopefully by the time I return from my vacation. Review HLA "Quarterly Report" - dated 7/25/96. Elevated concentrations of petroleum hydrocarbons are most prevalent in wells MW-1A, MW-4 and MW-5. This is consistent with past sampling events. Draft letter requesting cost benefit analysis for the pump and treat system.

8/13/96 Review HLA "Aquifer Testing and Ground-Water Treatment Cost Feasibility Study"-dated 2/2/90.

8/27/96 Call to David Kleesattel of HLA. He is in the San Francisco office (415)543-8422. He is concerning with the accuracy of the cost/benefit analysis which is being prepared by their office. Problems include the fact that start-up costs are the major portion of the project costs, and maintenance costs are small in comparison. Also, difficult to estimate free product recovery rates, as compared to dissolved phase estimates, which are relatively easy to calculate. $\text{Mg/L} \times \text{number of liters} = \text{mg of product removed}$.