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By dehloptoxic at 9:13 am, Aug 09, 2006



August 8, 2006

Project No.: 015-01-015

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

SUBJECT: Interim Remediation of Groundwater for Fuel Leak Case No. RO0000324

**Livermore Gas and Mini Mart** 

160 Holmes Street, Livermore, California

Dear Mr. Wickham:

In accordance with your July 10, 2006 email, Allterra proposes to conduct limited interim groundwater extraction and treatment at the subject site in order to initiate plume migration control and remove high levels of dissolved hydrocarbons. Presented below is a description of Allterra's proposed method for interim cleanup of groundwater.

## Proposed Interim Cleanup Method

**Groundwater Extraction** 

The proposed interim groundwater remediation to be implemented at the site will consist of alternating groundwater extraction from wells EW-1 and EW-2. Using a submersible pump and flexible hosing, extracted groundwater will first pass through a bag filter to remove larger sediments. The water will then be filtered through two, 200-pound (55-gallon) liquid phase carbon vessels, arranged in series, to remove dissolved petroleum hydrocarbons. Treated water will then pass through a flow totalizer to document the total volume of water treated. Finally, the water will enter a 6,800-gallon poly tank for storage pending permitted discharge to the sanitary sewer. Figure F-1 presents a process and instrumentation diagram for the interim cleanup equipment set up.

## Sample Collection: Influent Flow Stream

Groundwater samples will be collected from the influent groundwater flow stream at least once per extraction "batch". Samples will be submitted under chain of custody protocol to McCampbell Analytical, Inc., of Pacheco, California, a state of California certified laboratory (ELAP #1644), and tested for total petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015C, for benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B.

Sample Collection: Wastewater Discharge

Wastewater samples from the holding tank will also be sampled each extraction "batch". Samples will be submitted under chain of custody protocol to Test America, Inc. and tested for total toxic organics (TTOs) by EPA Method 624 (as required by the City of Livermore for wastewater discharge). Once the lab data is received, it will be submitted to the City of Livermore for discharge approval. Once approved, the wastewater will be discharged to the

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sanitary sewer, with the flow rates and volumes being documented. The entire groundwater extraction, sample collection and testing, and discharge process will be repeated, alternating between extraction wells EW-1 and EW-2, until treatment system construction is completed.

## Reporting

The data collected during interim cleanup activities will be submitted in each quarterly groundwater monitoring report. Data submitted in the reports will include a description of site activities, which well groundwater was extracted from (EW-1 or EW-2), flow rates, volumes removed, analytical results, and contaminant mass removal estimates for TPHg, benzene, and MTBE.

Allterra will begin interim cleanup of groundwater at the Site upon your approval. Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely,

Allterra Environmental, Inc.,

Erik Allen

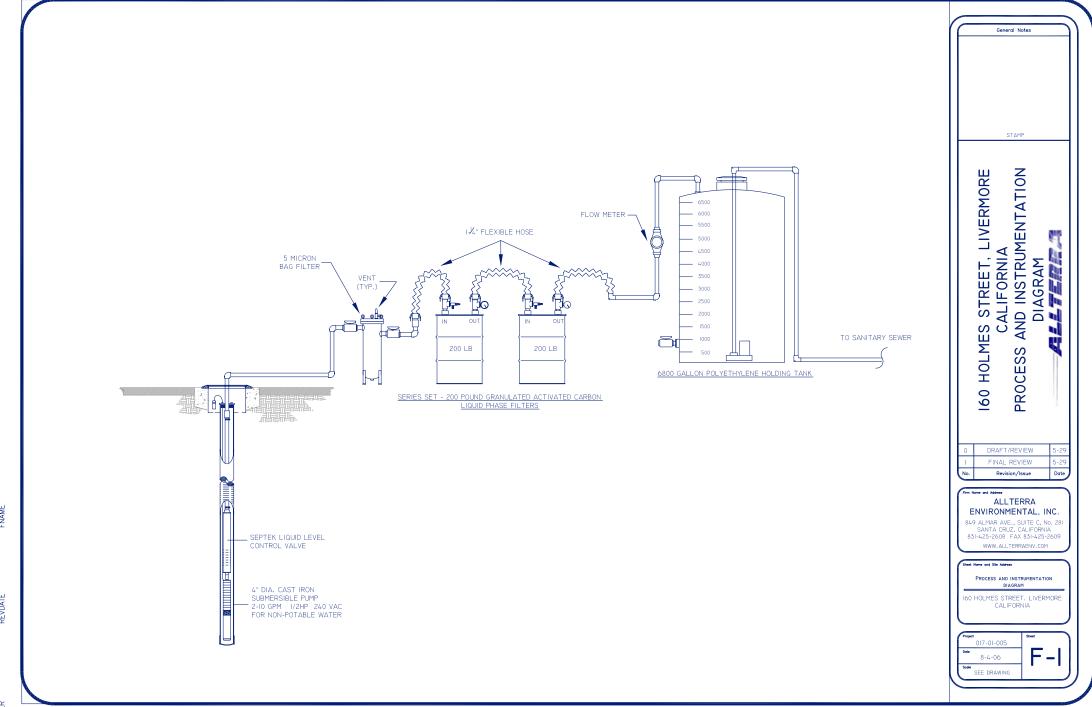
Staff Scientist

Attachments:

Figure F-1: Process and Instrumentation Diagram

James Allen Project Manager





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