

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R01099

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

April 20, 1994
STID# 1849

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

Mr. Tommy Harden
Loomis Armored Inc.
10202 Miller Road
Dallas, Texas 75238

RE: Workplan Addressing Issues Related to the Former Underground Storage Tanks at Loomis Armored Inc., - 936 Brockhurst Street, Oakland, California 94608

Dear Mr. Harden:

This office has completed review of the work plan dated February 4, 1994 and prepared by Robert Kitchen Associates concerning issues related to the two former underground storage tanks at the referenced site.

Based on this review, the basic elements of the workplan is acceptable provided the following items are addressed:

- 1) During borehole advancement, soil samples must be collected at a minimum of every five feet in the unsaturated zone, significant changes in lithology and where field screening identifies the presence of contaminants. The selection of samples chosen for laboratory analysis should be based primarily on field evidence. A minimum of one sample submitted for analysis from the boring must be from the saturated/unsaturated zone interface.
- 2) A minimum of 24 hours, and preferably 72 hours should pass between well development and purging/sampling.
- 3) Wells should be surveyed to an accuracy of 0.01 foot and referenced to mean sea level (MSL).
- 4) Soil and groundwater samples must be analyzed for the following target compounds: TPH gasoline, TPH diesel, benzene, toluene, ethyl benzene and xylene.
- 5) Groundwater monitoring wells must be sampled at a minimum of every quarter and groundwater elevation readings must be incorporated in the monitoring program.
- 6) The vadose zone monitoring well within the nested well (MW-2) must be checked for perched water; sample must be collected and analyzed for target compounds if perched water is present.
- 7) Please notify this office at least 72 hours in advance for the start up of the work plan implementation so a site visit can be arranged by a representative from this office.

Mr. Tommy Harden
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A report must be submitted to this agency within 45 days after workplan implementation.

Until cleanup is complete, you will need to submit quarterly reports to this office and the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project.

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo

Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health
Gil Jensen, Alameda County District Attorney's Office
Edgar B. Howell, Chief, Hazardous Materials Division - files

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RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

November 10, 1993
STID # 1849

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

Mr. Tommy Harden
Loomis Armored Inc.
10202 Miller Road
Dallas, Texas 75238

**RE: Status of the Soil and Groundwater Investigation
Related to the Two Former Underground Storage Tanks at
936 Brockhurst Street, Oakland, California 94608**

Dear Mr. Harden:

The Alameda County Department of Environmental Health, Hazardous Materials Division has recently reviewed the case file concerning the removal of two underground storage tanks in March 9, 1990 at the referenced site.

Soil samples collected (8 feet bgs) during the removal of the 6,000 gallon gasoline tank showed 230 ppm TPH gasoline and 1,800 ppm TPH diesel. Benzene, toluene, ethyl benzene and xylene (BTEX) were non detect. The soil samples collected from the diesel tank excavation were all non detect for TPH gasoline, TPH diesel and BTEX. Groundwater was present in both excavation pits and the water sample collected from the gasoline tank pit exhibited elevated levels of the following contaminants: 640 ppb TPH gasoline; 74,000 ppb TPH diesel; 83 ppb benzene; 25 ppb toluene; 6.5 ppb ethyl benzene; 15 ppb xylenes.

Limited overexcavation and fuel fill piping removal were performed in May 10, 1990. The soil sample collected from the excavation wall (T5-6) had 130 ppm TPH gasoline and 0.2 ppm benzene. Soil sample from the piping trench (P1-3) had 580 ppm TPH gasoline and 1.1 ppm benzene.

Soil vapor survey was conducted on site in July 25, 1990. Seven borings were advanced to 5 feet bgs and the levels of TPH gasoline detected were between 73 ppm to 210 ppm.

Three monitoring wells were installed in August, 1990 and the groundwater samples collected from the three wells were all non detect for TPH gasoline, TPH diesel, benzene, toluene, ethyl benzene and xylene. Groundwater flow direction appears to be towards the south indicating that all the three wells on site are upgradient of the former tank locations.

Based upon this review process, the following items are issues that must be addressed regarding the status of the soil and groundwater investigation / remediation at the site:

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- 1) Please clarify if all the residual soil contamination on site had been remediated. Soil samples P1-3 (580 ppm TPH gas), T5-6 (130 ppm TPH gas) and T1-8 (230 ppm TPH gas) indicated significant levels of petroleum hydrocarbon contamination.
- 2) Further characterization is required to completely define the extent of the site plume. The "zero isoconcentration line" must be determined. The vertical and lateral extent of contamination must be delineated.
- 3) All the three wells (MW-1, MW-2 MW-3) on site are upgradient of the former tank excavations. **One monitoring well must be installed within 10 feet of the former tank area in the verified downgradient direction.** Groundwater gradient flow direction must be established at the site. Construction and placement of wells must adhere to the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites", August, 1990.
- 4) Sampling of groundwater monitoring wells at the site **must occur every quarter** which is the maximum sampling interval allowed. After four consecutive quarters of non detectable level is achieved, the frequency of monitoring events will be evaluated and/or the case will be reviewed for closure. Groundwater must be sampled and analyzed for the following target compounds: TPH gasoline, TPH diesel, benzene, ethyl benzene, toluene and xylene. Groundwater elevation readings must be incorporated in the monitoring program. Any modification to the monitoring program must have prior approval from this office.

A work plan addressing items #1, #2 and #3 must be submitted to this office **no later than January 10, 1994.**

Until cleanup is complete, you will need to submit reports to this office **every three months** (or at a more frequent interval, if specified at any time by this office). In addition, the following items must be incorporated in your future reports or workplans :

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified

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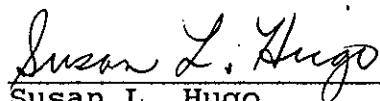
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professional involved with the project.

Please be aware that this is a formal request for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of stated deadlines or changes in the workplan must be confirmed in writing and approved by this agency.

If you have any questions concerning this letter, please contact me at (510) 271-4530.

Sincerely,



Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health
Edgar B. Howell, Chief, Hazardous Materials Division / file
Gil Jensen, Alameda County District Attorney's Office
Rich Hiatt, RWQCB, San Francisco Bay Region
Robert Kitchen, 615 Leopard, Suite 320,
Corpus Christi, Texas 78470