#### ALTREA, LLC.

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Donna Drogos Local Oversight Program Manager Alameda County Department of Environmental Health. 1131 Harbor Bay Parkway Alameda, CA 94502-6577

# RE: Work Plan for Subsurface Investigation of Below-Ground Hydraulic Elevator Unit, 7200 Johnson Drive, Pleasanton, Alameda County, CA

Dear Ms Drogos:

The following work plan was prepared for a subsurface investigation of a belowground hydraulic elevator unit located in the building at 7200 Johnson Drive in Pleasanton, Alameda County, California (*subject site*). The attached **Figure 1** presents the site location. The purpose of the investigation is to collect soil and groundwater samples in the vicinity of the below-grade hydraulic elevator pit room, submit the samples for laboratory analyses for hydraulic oil-based hydrocarbons, and evaluate potential soil and groundwater impact by hydraulic oil released from the below-ground elevator cylinder.

The elevator system was comprised of a subsurface closed loop system consisting of a below-ground jack assembly (piston and cylinder) installed within an outer 20-inch diameter steel casing. According to information provided to ALTREA, a hole in the cylinder jack assembly was reported at approximately 30 feet below elevator pit floor. Approximately 15 to 20 gallons of hydraulic oil was reportedly released into the steel casing that housed the below-ground jack assembly.

#### Scope of Work

The scope of work of the subsurface investigation is as follows:

• Perform a preliminary inspection of the site and mark the proposed location of three exploratory borings, review available information on the existing site conditions and elevator system, and coordinate the on-site work with the building tenants and the Alameda County Department of Environmental Heath (County Environmental Health).

- Drill 3 exploratory borings around the elevator cylinder pit room and collect soil samples for laboratory analyses.
- Install temporary screened casing in the boreholes to facilitate the collection of groundwater samples for laboratory analyses.
- Laboratory analyses of soil and groundwater samples for hydraulic-oil range petroleum hydrocarbons.
- Prepare a report with the results of the subsurface investigation

## Task 1Pre-Field Activities

The following activities will be completed prior to the start of the drilling work:

- Perform a preliminary inspection of the elevator system and vicinity to evaluate site access for drilling equipment, mark the proposed boring locations, and clear the boring locations of underground utilities.
- Review the construction details and history of the elevator system based on information provided by the Owner and/or Owner Representatives.
- Prepare a Health and Safety Plan for the proposed site investigation.
- Notify Underground Services Alert (USA) of the drilling work as required.
- Procure a boring drilling permit from the Alameda County Zone 7 Water Agency as needed.
- Coordinate the drilling and investigation with County Environmental Health.

#### Task 3 Soil and Groundwater Sampling

- Drill 3 exploratory borings distributed in a triangulation pattern around the elevator pit room, within less than approximately 20 feet of the location of the below-ground hydraulic cylinder. Final boring locations may be modified based on access limitations, subsurface obstructions and other considerations.
- The soil borings will be completed by a C-57 licensed drilling contractor under the direction of a California Professional Geologist. Depending on

access restriction, the boring may be completed with the use of hollow-stem auger drilling equipment with discrete soil sampling capabilities. However, if drilling is restricted by building or foundation obstructions, a limited access geoprobe<sup>TM</sup> equipment rig with continuous soil sampling capabilities will be used to drill the borings. If required by County Environmental Health, an addendum to this work plan will be issued if other drilling methods are required because of unforeseen subsurface conditions encountered during the pre-field activities.

- The borings will each be advanced to a maximum depth of 30 feet below the basement elevator pit floor. After coring through the concrete floor slab, soil sampling will be performed between grade and the bottom of each boring. Soil samples will be collected during the drilling and logged by the geologist following the Unified Soil Classification System. Soils will also be inspected for hydraulic oil residue and field screened with a portable photo-ionization detector (PID) for total volatile organics. Two undisturbed soil samples per boring will be collected for laboratory analyses.
- Temporary screened well casing of 0.75 inch diameter will be installed in each boring to facilitate the collection of grab groundwater samples for laboratory analyses. Depth to water will be measured with an electronic water level indicator. The groundwater will be field inspected for the possible presence of a petroleum hydrocarbon sheen or floating product.
- Groundwater samples will be collected by lowering a bailer into the screened casing and retrieving a slug of water. The groundwater will be transferred into laboratory-supplied containers and submitted with chain of custody to a state-certified laboratory (STL of Pleasanton, California).
- Upon completion of sampling activities, the borings will be backfilled up to grade with neat cement by the tremie method. The boreholes above grade will be backfilled with concrete.
- Soil and water generated from the investigation will be placed in 55-gallon DOT drums. The drums will be labeled and stored at the *subject site*. The disposition of the wastes can be made following completion of the analytical testing and waste profiling.

## Task 4 Laboratory Analyses

• Laboratory analyses of the soil samples for total petroleum hydrocarbons (TPH) as hydraulic oil by Environmental Protection Agency (EPA) Method 8015M with silica-gel cleanup. In addition, at least one soil sample will be analyzed for semi-volatile organic compounds (SVOCs) by EPA Method 8270C.

• Laboratory analyses of the groundwater samples for TPH as hydraulic oil by EPA Method 8015M with silica-gel cleanup. Provided sufficient volume of groundwater is recovered, at least one sample will be analyzed for SVOCs by EPA Method 8270C.

## Task 5 Investigation Report

- Prepare an investigation report discussing the project background; documenting the drilling, sampling and analyses; and evaluating the results of the subsurface investigation.
- Prepare boring logs and summary table of the analytical results.
- Prepare a site plan with the soil and groundwater sampling locations.
- Submit a copy of the investigation report to the lead regulatory agencies as needed.

Please call 916-548-1762 if you have questions.

Sincerely,

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Paul Studemeister Professional Geologist, PG 4635/CEG 1746

Attachment: Figure 1. Site Vicinity Map

ALTREA LLC. Work Plan for Subsurface Investigation 7200 Johnson Avenue, Pleasanton, CA





