geo - logic geotechnical and environmental consulting services

1140 - 5th Avenue, Crockett, CA 94525

(510) 787-6867 • Fax (510) 787-1457

July 17, 1999

Ms. Susan Hugo Alameda County Department of Environmental Health 1131 Harbor Bay Parkway, 2nd Floor Alameda, California 94502

RE: Workplan for Replacement of Monitoring Well MW-1 Former Berkeley Farms Truck Repair Shop and Yard 4575 San Pablo Avenue Emeryville, California 94608

Dear Ms. Hugo:

Enclosed is the above-referenced workplan. The work is tentatively scheduled for either July 30 or August 2, 1999. When the date is finalized, I will notify you by telephone. Should you have any questions regarding the workplan, please feel free to call me at (510) 787-6867.

Sincerely,

Geo-Logic, Inc.

Joel G. Greger, C.E.G. Certified Engineering Geologist

License No. EG 1633 Exp. Date 8/31/2000

Attachment

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PROTECTION

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(510) 787-6867 • Fax (510) 787-1457

July 16, 1999 Paradiso Job No. 1103-03

Berkeley Farms 25500 Clawiter Road Hayward, California

Attention: Mr. Pat Roland

RE: Work Plan/Proposal

Abandonment and Replacement of Monitoring Well MW-1 Berkeley Farms Truck Repair Shop and Yard 4575 San Pablo Avenue Emeryville, California 94608

Dear Mr. Roland:

Per your request, and in response to a letter to Berkeley Farms from Alameda County Health Care Services (ACHCS) dated June 15, 1999, Geo-Logic is pleased to provide this workplan/proposal for the proper abandonment and replacement of monitoring well MW-1, damaged during recent construction.

PROPOSED FIELD WORK - WELL ABANDONMENT

Well MW-1 was originally constructed to a depth of 17 feet below grade with 2-inch PVC casing in an 8-inch borehole. The well casing and seal were broken during recent construction. The well is proposed to be properly abandoned by overdrilling, using a truck-mounted hollow-stem auger drill rig with 8-inch diameter augers. A stinger rod will be advanced ahead of the augers to insure that the drill rig remains centered on the well casing. Following overdrilling by approximately one foot, the borehole will be filled from the total depth to near the surface with neat cement grout. The final two feet below grade will be filled with native soil, as it is located within a landscaped area. A permit will be obtained from the Alameda County Public Works Agency - Water Resources Section prior to beginning work.

PROPOSED FIELD WORK - WELL INSTALLATION

A replacement well will be constructed identical to the original well and within several feet
of the original location, but located within the concrete driveway outside of the landscaped
area. A permit will be obtained from the Alameda County Public Works Agency - Water
Resources Section prior to beginning work. Ground water is anticipated at approximately

feet below grade, based on the ground water levels encountered during the June, 1999 monitoring and sampling event. Soil samples will not be collected due to the proximity to the previously sampled well.

2. Waste Handling and Disposal:

During drilling operations, all soil materials will be stored on-site, covered by visqueen. Displaced groundwater, rinsate, and excess grout material will be stored in DOT-approved, properly labelled drums and hauled from the site by a licensed hazardous materials hauler. A composite soil sample will be taken of the drill cuttings for disposal profiling. Following waste acceptance, the cuttings will be transported to a proper disposal facility under manifest.

3. The well casing will be secured with a waterproof cap and a padlock. A round, watertight, flush-mounted well cover will be concreted in place over the top of the casing. The elevation of the well casings will be surveyed by a licensed land surveyor to Mean Sea Level and to a vertical accuracy of 0.01 feet.

4. Well Development:

The well will be developed approximately 72 hours after well completion. Prior to development, the well will be checked for depth to the water table using an electronic sounder, and for the presence of free product using an interface probe or paste tape. After recording the monitoring data, the well will be developed by the use of a surge block and a pump. Effluent generated during well development will be contained in DOT-approved drums and hauled from the site by a licensed hazardous materials hauler.

5. Groundwater Sampling:

The well will be sampled at least 72 hours after development. Prior to sampling, the well will be checked for free product using an interface probe or paste tape. The well will also be checked for the presence of a sheen. Prior to sampling, the well will be checked for free product using an interface probe or paste tape. The well will also be checked for the presence of a sheen.

The well will then be purged using a pump or bailer of a minimum of four casing volumes. Once the field parameters are observed to stabilize and a minimum of approximately four casing volumes have been removed from the well, water samples will then be collected by the use of a clean Teflon bailer, and promptly decanted into 40 ml VOA vials and/or one-liter amber bottles, as appropriate. The vials and/or bottles will be sealed with Teflon-lined screw caps, labeled, and stored, on ice, for delivery to a state-certified laboratory. Properly executed Chain of Custody documentation will accompany all water samples.

Paradiso Job No. 1103-03 - July 16, 1999

6. <u>Laboratory Analyses</u>:

Water and the composite stockpile soil sample will be analyzed by Sequoia Analytical Laboratory, a state-certified laboratory, for total petroleum hydrocarbons (TPH) as gasoline and TPH as diesel by EPA method 5030/modified 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA method 8020. The composite stockpile soil sample will also be analyzed for Total Lead.

7. Conclusions:

Conclusions and results of this work will be described in a technical report. The technical report will be submitted to the ACHCS.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study will be based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We will analyze this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

If you have any questions regarding this work plan/proposal, please do not hesitate to call me at (510) 787-6867.

No. EG 1633 CERTIFIED ENGINEERING

GEOLOGIST

Sincerely,

Geo-Logic

Joel G. Greger, C.E.G.

Certified Engineering Geologist

License No. EG 1633 Exp. Date 8/31/98

Attachments: Site Plan - Figure 1

