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AEGIS ENVIRONMENTAL, INC.

1050 Melody Lane, Suite 160, Roseville, CA 95678



916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

March 17, 1993

Ms. Christine K. Noma
Wendel, Rosen, Black, Dean & Levitan
Post Office Box 2047
Oakland, California 94612

Subject: **Revised Cost Estimate For Well Installation and Sampling**
Corwood Car Wash
6973 Village Parkway, Dublin, California

Dear Ms. Noma:

Aegis Environmental, Inc. (Aegis), is pleased to submit this revised cost estimate for well installation and sampling at the subject site. The original cost estimate, dated January 5, 1993, was for the scope of work presented in Aegis' "Workplan For Installation of Groundwater Monitoring Wells" and "Addendum to Aegis Workplan For Installation of Groundwater Monitoring Wells," dated November 2 and 23, 1992, respectively. The work was proposed in response to a request from the Alameda Health Care Services Agency, Hazardous Materials Division (ACHMD), dated November 5, 1992.

The revisions requested by your office on March 16, 1993, include the following:

- Total lead analysis instead of STLC (soluble) lead;
- Two-inch-diameter groundwater monitoring wells instead of 4-inch;
- Drums to store soil on site instead of stockpiling; and,
- No costs for quarterly monitoring at this time.

CORWOOD.PRO

GEOLOGISTS • ENGINEERS • GROUNDWATER SCIENTISTS

BACKGROUND

In April 1991, four soil borings were drilled and sampled to depths ranging from 15 to 20 feet below ground surface (bgs) on site. The borings were drilled to assess subsurface conditions around two 10,000-gallon capacity fuel underground storage tanks. Petroleum hydrocarbons were detected in soil and groundwater samples collected and analyzed from the borings. Groundwater was found at a depth of approximately 15 feet bgs.

PROPOSED WORK

In response to the ACHED request, Aegis proposes installing and sampling three groundwater monitoring wells to a total estimated depth of 25 feet bgs. The work will be performed as outlined in Aegis' "Workplan For Installation of Groundwater Monitoring Wells" and "Addendum to Aegis Workplan For Installation of Groundwater Monitoring Wells," dated November 2 and 23, 1992, respectively.

The purpose of the wells is to assess the presence and extent of hydrocarbons in the soil and, possibly, groundwater. A results report will be prepared summarizing the data collected.

COST ESTIMATE

Attachment 1 outlines Aegis' cost estimate to perform the well installation and sampling. Costs will accrue on a time and materials basis not to exceed the total estimated cost without your approval. Invoices will be sent monthly, according to the terms of the standard Aegis service agreement, to be prepared upon your acceptance of this cost estimate.

We appreciate the opportunity to provide you with geologic, engineering, and environmental consulting services. If you wish to proceed with this project, please contact us at (916) 782-2110.

Sincerely,

AEGIS ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Paul K. Graff". The signature is written in a cursive, flowing style.

Paul K. Graff
Senior Geologist

PKG/law

Attachments

ATTACHMENT 1
COST ESTIMATE AND KEY ASSUMPTIONS

Groundwater Monitoring Well Installation and Sampling

Corwood Car Wash

6973 Village Parkway, Dublin, California

March 16, 1993

Task 1: Project Management and Permitting

Aegis Professional Services

Category	Units	# Units	Cost / Unit	Cost
Senior Professional	hr	4	\$90.00	\$360.00
Staff Professional	hr	2	\$65.00	\$130.00
Clerical	hr	1	\$25.00	\$25.00

Total Services **\$515.00**

TASK 1 TOTAL **\$515.00**

Groundwater Monitoring Well Installation and Sampling
 Corwood Car Wash
 6973 Village Parkway, Dublin, California
 March 16, 1993

Task 2: Well installation and Sampling
 Three 2-inch diameter, 25-foot deep groundwater monitoring wells

Aegis Professional Services

Category	Units	# Units	Cost / Unit	Cost
Senior Professional	hr	1	\$90.00	\$90.00
Staff Professional	hr	20	\$65.00	\$1,300.00

Total Services **\$1,390.00**

Aegis Expenses

Category	Units	# Units	Cost / Unit	Cost
Mileage (160 miles roundtrip)	miles	160	\$0.50	\$80.00
Sampling Tubes	each	6	\$8.00	\$48.00
Per Diem	day	1	\$80.00	\$80.00
OVA/PID	day	2	\$75.00	\$150.00
Misc. Expenses	item	1	\$50.00	\$50.00

Total Aegis Expenses **\$408.00**

Outside Expenses

Category	Units	# Units	Cost / Unit	Cost
Analytical Laboratory (TPH as Gasoline, Diesel, BTEX)	item	6	\$150.00	\$900.00
(Total Lead, TCLP BTEX, RCI)	item	1	\$250.00	\$250.00
Drilling Subcontractor	item	1	\$3,075.00	\$3,075.00
Well Surveying	item	1	\$500.00	\$500.00
Rinse Water Disposal	item	1	\$200.00	\$200.00
Drums for Soil	item	5	\$40.00	\$200.00
Soil Disposal	item	1	\$400.00	\$400.00

Total Outside Expenses **\$5,525.00**

TASK 2 TOTAL **\$7,323.00**

-Groundwater Monitoring Well Installation and Sampling
-Corwood Car Wash
6973 Village Parkway, Dublin, California
March 16, 1993

Task 3 : Preparation of Results Report

Aegis Professional Services

<u>Category</u>	<u>Units</u>	<u># Units</u>	<u>Cost / Unit</u>	<u>Cost</u>
Principle Professional	hr	1	\$100.00	\$100.00
Senior Professional	hr	2	\$90.00	\$180.00
Staff Professional	hr	15	\$65.00	\$975.00
Draftsman	hr	6	\$30.00	\$180.00
Clerical	hr	4	\$25.00	\$100.00

Total Services **\$1,535.00**

TASK 3 TOTAL **\$1,535.00**

TOTAL COST ESTIMATE **\$9,373.00**

Approved
R. L. Woodward 3/24/93

Groundwater Monitoring Well Installation and Sampling
Corwood Car Wash
6973 Village Parkway, Dublin, California
March 16, 1993

Task 3 : Preparation of Results Report

Aegis Professional Services

Category	Units	# Units	Cost / Unit	Cost
Principle Professional	hr	1	\$100.00	\$100.00
Senior Professional	hr	2	\$90.00	\$180.00
Staff Professional	hr	15	\$65.00	\$975.00
Draftsman	hr	6	\$30.00	\$180.00
Clerical	hr	4	\$25.00	\$100.00

Total Services **\$1,535.00**

TASK 3 TOTAL **\$1,535.00**

TOTAL COST ESTIMATE **\$9,373.00**

KEY ASSUMPTIONS:

- The three wells to be installed, sampled, and developed in 2 days, requiring no more than 20 hours, including travel time. Driller subcontractor costs not to exceed \$3,075.
- Well locations and elevations to be surveyed by a licensed surveyor. Surveying costs not to exceed \$500.
- No more than two soil samples from each boring (total of six samples) to be submitted to a state-certified laboratory to be analyzed for total petroleum hydrocarbons, as gasoline and diesel, and benzene, toluene, ethylbenzene, and total xylenes (BTEX).
- Soil from drilling to be stored on site in covered, labeled, Department of Transportation (DOT)-approved, 55-gallon drums. Soil to be disposed of as nonhazardous material at a Class II or III landfill, with total lead, TCLP BTEX, and RCI as maximum additional analyses required. Soil disposal costs, including loading and hauling, not to exceed \$400.
- Rinse and development water from well drilling will be stored on site in covered, labeled, DOT-approved, 55-gallon drums. Water hauling and disposal cost not to exceed \$200.
- Aegis to prepare a results report after the initial well drilling. Report will conform to agency guidelines and be submitted to client for review prior to regulatory agency submission.