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Environmental Consultants

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Walnut Creek, California

FAX / TELECOPY TRANSMITTAL

From: Mark Jonas	**of:** J&A	**FAX #:** (925) 933 - 5362
To: Eva Chu	**of:** Alameda County	**FAX #:** (510) 337 - 9335

Date: 10 / 16 / 2000	**Project:** Former Paco Pump, Oakland
Time:	**Project #:** PCO-220

Attachments:

1) **Work Plan Approval**
2) **Table A/GW5**
3) **Page Six of December 1996 "Groundwater Monitoring Report, Sampling Round Fourteen, Paco Pumps, 9201 San Leandro Street, Oakland, California."**

Number of Attached Pages (not including transmittal page): 3

Message:

Dear Eva,

We plan to sample the wells at the former Paco facility within two week. Your August 1, 2000 letter identified other analytes which may need to be collected. We collected several of these analytes in 1995/96 (see attachment).

Please call to discuss if any other analytes are required, beyond TPH-g and BTEX.

Thanks again and I hope you had a good vacation.

Sincerely,

Mark Jonas, R.G.
Project Manager

Evidence of intrinsic biodegradation includes

Decrease in:
- DO
- ORP
- Nitrate
- Sulfate

An increase in
- Ferrousion
- alkalinity

with increasing contaminant conc.

StID 4245

August 1, 2000

Mr. John Lilla
Paco Pumps
16801 Greenspoint Park Drive, #355
Houston TX 77060

RE: Work Plan Approval for 9201 San Leandro Street, Oakland, CA

Dear Mr. Lilla:

I have reviewed Jonas & Associates Inc.'s July 2000 proposal to sample groundwater from Well 9MW3, 9MW1 and 9MW5 at the above referenced site. The proposal is acceptable and work should be completed at your convenience. The groundwater monitoring report to be submitted upon completion of field activities, should include evidence that the contaminant plume is stable or decreasing. Measurements of dissolved oxygen, oxidation-reduction potential, nitrate, sulfate, ferrous iron, and alkalinity can help to demonstrate that biodegradation is occurring at the site. Graphs of the concentration of contaminants versus depth to water and versus time should also be used to support your request for site closure.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

email: Mark Jonas (mark@jonasinc.com)

paco1-11

Table A/GW5

INORGANIC GROUNDWATER RESULTS
PACO PUMPS - 9201 SAN LEANDRO STREET

Sample I.D.	Sampling Date	Depth (feet)	Matrix	Lab	Total Nitrogen (351.3/300) (mg/L)	Phosphorus (365.2) (mg/L)	Iron (3010AM/6010) (mg/L)	Manganese (3010AM/6010) (mg/L)	Potassium (3010AM/6010) (mg/L)
Monitoring Well 9MW3									
GW9-MW3-Q9	5/31/95	5¼'-20¼'$_{screen}$	water	GeoAnal	ND(0.2)	0.09			
				CrLab			3.2	3.3	1.4
GW9-MW3-Q10	8/28/95	5¼'-20¼'$_{screen}$	water	GeoAnal	ND(0.2)	1.0			
				CrLab			ND(0.1)	1.2	34

notes: GeoAnal: GeoAnalytical Laboratories, Inc.: CrLab: Chromalab Inc.
ND(0.25) = Not Detected above the laboratory detection limit in parentheses.

Table A/GW6

DISSOLVED OXYGEN GROUNDWATER RESULTS
PACO PUMPS - 9201 SAN LEANDRO STREET

Sample I.D.	Sampling Date	Depth (feet)	Matrix	Lab	Dissolved Oxygen (Hach OX-2P) (mg/L)
Monitoring Well 9MW3					
GW9-MW3-Q9	5/31/95	5¼'-20¼'$_{screen}$	water	field	11
GW9-MW3-Q10P	8/28/95	5¼'-20¼'$_{screen}$	water	field	64
GW9-MW3-Q10	8/28/95	5¼'-20¼'$_{screen}$	water	field	20
GW9-MW3-Q11P	11/29/95	5¼'-20¼'$_{screen}$	water	field	18
GW9-MW3-Q11	11/29/95	5¼'-20¼'$_{screen}$	water	field	3
GW9-MW3-Q12P	2/29/96	5¼'-20¼'$_{screen}$	water	field	8
GW9-MW3-Q12	2/29/96	5¼'-20¼'$_{screen}$	water	field	2
GW9-MW3-Q13P	5/23/96	5¼'-20¼'$_{screen}$	water	field	59
GW9-MW3-Q13	5/23/96	5¼'-20¼'$_{screen}$	water	field	3
GW9-MW3-Q14P	11/4/96	5¼'-20¼'$_{screen}$	water	field	69
GW9-MW3-Q14	11/4/96	5¼'-20¼'$_{screen}$	water	field	35

notes: field: Performed in field with Hach Dissolved Oxygen Test Kit (Model OX-2P).
GW9-MW3-Q9: Sampled after purging, but prior to installation of Oxygen Release Compound (ORC) in well.
GW9-MW3-QnP: Sampled after removal of ORC, but prior to purging of the well.
GW9-MW3-Qn: Sampled after removal of ORC and purging of the well. n = 10, 11, 12, 13.

lithology encountered during drilling was gravelly silty sand, probably a fill material, and a sandy clay located from 4 feet to the bottom of the borehole at 21 feet bgs. First water was not clearly identified. On November 16, 1992 water level in monitoring well 9MW2 was measured at 10.45 feet bgs.

Monitoring well 9MW3 is located adjacent to a previous excavation where a former underground storage tank may have been present. No tank was found, but remnants of a former tank appears to have been identified during the excavation. The tank was reportedly used to store gasoline. Excavation activities and results were documented in the October 16, 1992 "Site Characterization Report and Work Plan, PACO Pumps, 9201 San Leandro Street, Oakland, California". The well was drilled next to the excavation area and constructed on November 4, 1992. During drilling of the borehole for monitoring well 9MW3, the lithology encountered was 2 feet of an apparent fill composed of gravelly silty sand and a sandy clay between 2 and 21 feet bgs. A pilot boring adjacent to 9MW3 also found sandy clay between 20 and 30 feet bgs. First water was not definitively identified. After the construction of monitoring well 9MW3, the well water level was measured at 10.64 bgs. On May 31, 1995 Oxygen Release Compound (ORC) socks were place in monitoring well 9MW3 to hopefully enhance in-situ bioremediation. Prior to collecting water quality samples in August 1995, the ORC socks needed to be extracted from the well. After some difficulty, Regenisis and Gregg Drilling successfully removed the ORC socks on August 25, 1995. On August 29, 1995 new ORC socks were placed in the well. These were then replaced on February 29, 1996 with new ORC socks. On November 4, 1996 the ORC socks were removed from monitoring well 9MW3 by J&A, as endorsed in the Alameda County Health Care Services letter dated May 22, 1996.

ORC well 9MW3

Monitoring well 9MW4 was constructed on November 9, 1992. The location of the well is apparently near a former UST, which was said to have been located below the floor of the current warehouse. Prior to drilling the borehole for the monitoring well, 1¼ feet of flooring and sub-base was cored with a diamond-studded core barrel. The flooring and sub-base appears to be 6" of concrete, 6" of rock, and 3" of asphalt. Below the flooring and sub-base was a sandy clay down to a depth of 21 feet. During drilling, first water was identified at an approximate depth of 13.5 feet bgs. On November 16, 1992 well water was measured at 9.41 feet bgs.

Monitoring well 9MW5 was constructed on August 12, 1994. The well was installed adjacent to the southwest fence line of the facility and next to the former manufacturing building and the Central Pacific Railroad track. The lithology encountered during drilling ranged from a gravelly sandy clay to a sandy clay between 2 and 21 feet bgs. During drilling activities, depth to first water was not able to be clearly identified. After the screen was installed, the well water level was measured at 8.22 feet bgs on August 24, 1994.

The following Table 2-1 present a summary of construction details for monitoring wells 9MW1, 9MW2, 9MW3, 9MW4, and 9MW5.