SECOR International Incorporated

April 17, 2000

Mr. Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Fenton's Reagent Work Plan**
Former Penske Truck Leasing Facility
725 Julie Ann Way
Oakland, CA

Dear Mr. Chan:

SECOR International Incorporated (SECOR) is submitting this outline of the Fenton's reagent bench scale study addition on behalf of Penske Truck Leasing Co., L.P. for the former Penske Truck Leasing Facility at 725 Julie Ann Way, Oakland, California (the Site). The purpose of the study is to evaluate the oxidation and mobilization of heavy metals as a result of hydrogen peroxide and sulfuric acid.

If you should have any questions concerning this project, please contact Richard G. Saut at (610) 775-7298 or Angus McGrath at (510) 285-2556.

Sincerely,

SECOR International Incorporated

Angus E. McGrath, Ph.D.
Principal Geochemist

Attachment

cc: Mr. Richard Saut, Penske Truck Leasing Co.
Mr. Don Pratt, SECOR International Inc.

360-22nd Street, Suite 600, Oakland, CA 94612 (510) 285-2556 (510) 285-2568 Fax www.secor.com

Outline of Fenton's Reagent Treatment Bench Study

Experimental Plan:

Objective: Test whether reduced chromium is oxidized to hexavalent chromium as a result of peroxide oxidation. any thought of testing the TPH in soil and/or GW?

Treatment: byart

- 5% hydrogen peroxide (is this the correct one for field?)
- Acid, pH 2 sulfuric acid, acetic acid, and ferrous sulfate solution (100 mg/L ferrous iron, 10 mg/L acetic acid)
- Test will be conducted with and without acetic acid

Soils:

- 1 soil sample taken from approximately 10 feet from MW-7 depth?
- 1 soil sample taken from approximately 10 feet from MW-4

Dosing:

- 5 mL of hydrogen peroxide (is this 5ml of 5% H_2O_2) Is this dose equivalent to field dosage?
- 0 and 1 mL pH 2 sulfuric acid, acetic acid, and ferrous sulfate solution
- 200 grams of field moist soil – why this ratio? is it comparable to field?

Analyses:

- Hydrogen peroxide concentrations after 1, 2, and 5 days using a HACH field test kit method + accuracy
- Ferrous iron concentrations after 1 day ← method / dl .1
- Hexavalent Chromium using a HACH field test kit dl ← [redacted] mg/l, EPA 7198
- CAM 17 metals analysis on a filtered water sample (EPA Method 6000)

Procedure:

- Two 100 gram masses of each soil sample will be weighed into an erlenmeyer flask.
- Ferrous sulfate/acid will be added to one of each of the two soil samples. peroxide 10g of 50% H_2O_2.
- Hydrogen will be added after the ferrous sulfate solution.
- The reaction will be allowed to proceed for 5 days prior to analysis of hexavalent chromium. > any mixing
- Each soil will be washed with 100 mL of distilled water and analyzed for CAM 17 metals.

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will there be another wp for petroleum treatment?