REMEDIATION TESTING AND DESIGN

A California Corporation

Environmental Investigation/ Remediation/ Site Closure

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To: MS. JENNIFER EBERLE

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From: TOM ARMSTRONG

Date: 4/12/94 Total Pages: 3 + COVER

Message: AS REQUESTED, PLEASE FIND ENCLOSED A WORKPLAN FOR VACUUM EXTRACTION FEASIBILITY TESTING FOR GIN'S ARCO. PLEASE CALL ME OR HOWARD WHITNEY WITH ANY QUESTIONS OR COMMENTS. WE HAVE TENTATIVELY SCHEDULED TESTING FOR APRIL 18 TO APRIL 22 WITH MR. GIN AND DR. SIMMONS.

THANKS,

TOM

REMEDIATION TESTING AND DESIGN
ENVIRONMENTAL INVESTIGATION REMEDIATION SITE CLOSURE
609 Pacific Avenue, Suite 201, Santa Cruz CA 95060
Phone: (408) 458-1612 Fax: (408) 458-1509

April 12, 1994

Ms. Jennifer Eberle
Hazardous Materials Specialist
Alameda County Health Agency
80 Swan Way, Room 350
Oakland, California 94621

Subject: Workplan for Conducting Vacuum Extraction Feasibility Testing at Gin's Arco at 7th and Harrison Streets in Oakland, California

Dear Ms. Eberle:

Remediation, Testing and Design (RTD) is pleased to submit the following Workplan on behalf of Dennis Bates Associates, Inc. to conduct vacuum extraction feasibility testing (VEFT) at the Gin's Arco Site located at 706 Harrison Street in Oakland, California. This Workplan is in response to a request by you on April 11, 1994 to provide a technical Workplan regarding environmental compliance activities, which include performance of vacuum extraction feasibility testing for Dr. John Sammons of Dennis Bates Associates, Inc. (DBA). These activities are being ultimately performed for Mr. Bo Gin, the property owner.

SCOPE OF WORK

The project includes the following activities: 1) Notify the Bay Area Air Quality Management District (BAAQMD) of the VEFT, 2) Perform vacuum extraction feasibility testing (VEFT), and 3) Prepare a VEFT summary report. The site work will require five full days of field work. Exact testing details for the site may be modified based on site conditions, but will generally follow the proposed field activities described below.

BAAQMD Notification

A minimum of one week prior to conducting the VEFT, RTD will send the BAAQMD a short notification letter describing the testing procedures, equipment to be used, type of vapor abatement, and monitoring procedures. An Authority to Construct or a Permit to Operate is not required for the VEFT, as long as proven vapor abatement techniques are employed and the testing program does not exceed five days. RTD will conform to both requirements.

Vacuum Extraction Feasibility Testing

RTD will conduct the VEFT using the existing vapor recovery/vacuum extraction wells at the site for extraction purposes and the monitoring wells used to monitor vacuum influence. The VEFT will be conducted to determine the effectiveness of using vacuum extraction for remediation of soil and groundwater, and the removal of insoluble hydrocarbons (if present).

The VEFT will be conducted using RTDs vacuum extraction testing unit (VETU) consisting of: a Kohler 12-horsepower engine directly driving a Sutorbilt Model 3ML positive displacement blower capable of displacing 125 standard cubic feet per minute (scfm) and attainment of a vacuum load of 15 inches of mercury; a 55-gallon water accumulator to remove any vaporized water; and two granular activated carbon (GAC) canisters in series, each containing 200-pounds of vapor phase GAC.

Soil gasses extracted during the VEFT will be continuously field screened for total volatile hydrocarbons (TVH) using a Beckman Model 400 Total Hydrocarbon Analyzer equipped with a flame ionization detector (FID). [redacted] oxygen and carbon dioxide. DBA will supply a properly calibrated instrument capable of detecting oxygen and carbon dioxide at a range of 0 to 25 weight percent.

RTD anticipates extracting from each of the wells for a period of ten minutes each. The groundwater monitor wells (MW-1 and MW-2) will be tested briefly with and without a 1-inch diameter PVC drop pipe. Use of the drop pipe may enhance hydrocarbon extraction while reducing groundwater up welling. Vacuum extraction will be conducted for a minimum period of 12-hours (4-hours the first period, 8-hours the second period). The test will then be suspended for a 24-hour period. The second portion of the test will be for a minimum of 12-hours (8-hours the first period, 4-hours the second period). This will help in determining the rebound effect and to determine the overall effectiveness and sizing of the vapor extraction system.

Periodically during the testing, extracted soil gasses will be collected into 1-L Tedlar air bags. DBA will transport them under chain of custody documentation to a certified laboratory for analysis of total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethyl benzene and total xylenes (BTEX). RTD will collect the samples and DBA will be responsible for supplying the airbags and the laboratory. RTD anticipates collecting a total of four air bag samples for laboratory analyses.

Any liquid wastes produced during the VEFT will be stored on-site in DBA supplied DOT rated 55-gallon drums. The disposition of these wastes is not a part of this Workplan.

Report Preparation

Based on the results of the field work, a report will be prepared for the site which will summarize field activities and present the results of the vacuum extraction feasibility testing. In addition to data presentation, the report will also contain RTDs conclusions and recommendations.

If you have any questions or comments regarding this Workplan, please call me or Mr. Tom Armstrong at (408) 458-1612.

Sincerely,

REMEDIATION TESTING AND DESIGN

Howard Whitney, R.G. 4860
Registered Geologist

cc: Dr. John Sammons, Dennis Bates Associates, Inc.
Mr. Bo K. Gin, Oakland Auto Parts & Tires