GM

Worldwide Facilities Group
Environmental & Regulatory Support
Remediation Team

7/21/93 [illegible]
Gave · 3044 W Grand Bl
14-262P
Detroit MI 48202

547

November 7, 1995

Mr. Barney Chan
Alameda County CC4580
Department of Environmental Health
1131 Harbor Bay Parkway #250
Alameda, CA 94502-6577

RPS 8099

95 NOV -8 AM 8:56
ENVIRONMENTAL PROTECTION

Re: GMC Truck Center, 8099 Coliseum Way, Oakland, CA 94621

Dear Mr. Chan:

As we discussed last week, you requested an update of our environmental activities at the Oakland Truck Center. Groundwater Technologies, our contractor for this project has prepared the attached summary of activities to date as well as our proposed future activities.

I understand that the hearing set for November 22 has been postponed. I believe the enclosed materials will answer any questions that might have been raised at the hearing. Please telephone me after you have reviewed the enclosed information about whether a hearing will still be necessary on our case.

Sincerely,

G. Keith West

attachments
c: L. Ritzman Legal Staff
T. Lawless Truck Group

· Where are the actual reports? Complete w/ COC + analy reports etc
· free phase must be dealt w/ immediately per T. 23
· require qtrly reports per T. 23 — Mar + June 95 / May + Aug-Sep ors
· need an expanded figure
· source of mineral spirits?

SB3, SB20

GROUNDWATER TECHNOLOGY ®

Groundwater Technology, Inc.
6573.T Cochran Road, Cleveland, OH 44139 USA
Tel: (216) 349-0004 Fax: (216) 349-0894

October 20, 1995

Mr. Keith West
General Motors Corporation
Argonaut "A" - 1004H
485 W. Milwaukee Avenue
Detroit, Michigan 48202

SUBJECT: GMC TRUCK CENTER
8099 South Coliseum Way, Oakland, California

Dear Mr. West:

Groundwater Technology, Inc. (GTI) has prepared this brief letter report summarizing the activities performed and data gathered during the subsurface investigations at the General Motor Corporation (GMC) trucking facility at 8099 South Coliseum Way in Oakland, California. Field activities were conducted on March 23 and 24, 1995 and June 26, 1995. The March and June 1995 investigations included drilling 17 and 10 soil cores, respectively, with collection and laboratory analysis of soil and groundwater samples.

As described in GTI's original proposal dated September 29, 1995, our objective was to collect data to assist in determining the extent of fugitive hydrocarbons and propose remedial actions related to the former underground storage tanks (USTs) located on the south side of the main building . The areas investigated were expanded to include the oil/water separator on the east side of the main building and the garbage collection area at the far northwest corner of the property. During GTI's initial site work in June free product was observed in one boring near the oil/water separator. In addition, the extent of impacted groundwater near the former USTs could not be defined from GMC property. Following GTI's May 9, 1995 report to GMC permission was obtained from CalTrans to collect samples in the right-of-way adjacent to I-880. Additional borings were also installed in an attempt to define the extent of impacted soils near the oil/water separator.

Previous work conducted at the site by Clayton Environmental Consultants during 1993 included a subsurface investigation of the following areas: (1) near the property boundary of the former CalTrans facility, (2) near the former site USTs, (3) near the garbage

collection area.

Presented below is a summary of the work completed by Clayton Environmental Consultants and the investigations conducted by GTI.

SUMMARY OF WORK COMPLETED BY CLAYTON ENVIRONMENTAL CONSULTANTS

Clayton Environmental Consultants (Clayton) conducted work at the site during the period of July through September 1993. Subsurface work consisted of drilling soil borings with subsequent collection of soil and groundwater samples near the property boundary of GMC and CalTrans, the area of the former site USTs, and near the garbage collection area.

Results of their investigation (Phase I, Level II Environmental Site Assessment at GMC Truck, dated August 9, 1993) reported that soil and groundwater near the property boundary with CalTrans had been impacted with hydrocarbons possibly from leaking USTs located formerly on the CalTrans property. In addition, the soil near the garbage collection area had reportedly been impacted by hydrocarbons up to 0.5 ppm total petroleum hydrocarbons (TPH) as gasoline, 700 ppm TPH as diesel, and 820 ppm as oil and grease.

Review of laboratory data presented by Clayton for soil and groundwater samples collected near the former waste oil, gasoline and diesel USTs indicate that TPH as diesel and oil and grease remain in the soil and groundwater. Analyses of samples collected during this investigation reported concentrations up to 5,400 ppm TPH as diesel remained in the soil near the diesel tank with concentrations up to 110,000 ppb detected in groundwater. In addition, up to 3,900 ppm oil and grease was reported in the soil near the former waste oil tank. The groundwater samples collected contained up to 18,000 ppb oil and grease and 10,000 ppb TPH as diesel.

SUMMARY OF WORK COMPLETED BY GROUNDWATER TECHNOLOGY

Drilling and Soil and Groundwater Sampling Methods

Seventeen soil cores (SB-1 through SB-17; Figure 1) and 10 soil cores (SB-18 through SB-27) were completed on March 23 and 24, and June 26 1995, respectively, using a Geoprobe 5400 (direct push soil sampling rig) equipped with 2-inch outer diameter dual rod probes. Prior to coring each hole, all tools were steam cleaned to avoid cross contamination. Coring was supervised by GTI field geologist who described the soil types encountered according to the Unified Soil Classification System. The core holes were completed to depths ranging from 8- to 16 feet below grade. Drill logs were completed for each boring.

During coring, soil samples were collected at approximately 5- and 10-foot intervals with

a 7/8-inch inner rod equipped with acetate liners. The soil samples collected and retained for chemical analyses were transferred to brass liners immediately after collection. Sample tubes submitted for analysis were sealed using aluminum foil, capped with plastic end caps and secured with tape. The soil samples were screened in the field for hydrocarbons vapors using a photo-ionization detector (PID).

During the March 1995 investigation one soil sample from each boring was submitted to a California state certified laboratory for chemical analyses. Samples were selected based on the results of the field screening. During the June 1995 investigation soil samples /collected from borings SB-18 and SB-19 drilled near the garbage collection area and soil borings SB-24 through SB-26 drilled near the former USTs were not submitted for laboratory analysis. These sample were not analyzed because the extent of hydrocarbons in soil had been previously defined from data collected during the March 1995 field work, as discussed below. These borings drilled during the June 1995 field investigation were beyond the defined limits of the TPH in soil.

After the samples were sealed and labeled, the samples were placed on ice in a cooler for transport to the California-certified approved laboratory under chain of custody protocol.

Groundwater samples were collected from each boring through temporarily installed slotted PVC casing. A clean stainless steel bailer was used to retrieve the groundwater samples. Following completion of sampling, the cores were backfilled with neat cement and finished with asphalt or concrete to the existing grade.

Soil and Groundwater Sample Analysis

One groundwater sample per boring and selected soil samples were tested for TPH as gasoline with additional analysis for benzene, toluene, ethyl benzene, and xylenes (BTEX) (EPA Test Method 5030/8015/8020) and hydrocarbon screen by GC/FID for compounds in ranges for diesel fuel through motor oil. Chemical analysis of soil and groundwater samples was performed by a California certified analytical laboratory.

RESULTS OF THE MARCH AND JUNE 1995 SUBSURFACE INVESTIGATIONS

Groundwater concentration maps for TPH as motor oil are attached (Figure 4). A soil concentration map for TPH-d and oil and grease is also attached (Figure 3). Please note that the concentration map for TPH as motor oil in groundwater was developed using historical groundwater data, including information generated by Clayton for samples collected from borings B3-O, B11-O, and B4-O. These maps are preliminary concentration maps as they compile data collected in 1993 and 1995 and therefore were prepared to illustrate groundwater data collected at the site to date. The soil concentrations map also includes historical available soil data collected by Clayton.

Soil Sample Results March 1995

The analytical results of the soil sample collected from soil boring SB-3 located near the oil/water separator reported concentrations of benzene at 5.4 parts per million (ppm), xylenes at 87 ppm, TPH as gasoline at 3,500 ppm and TPH as kerosene at 1,800 ppm. In addition, the condition of the soil observed at the groundwater interface in soil boring SB-3 was saturated with petroleum product. The remaining soil samples analyzed from this investigation did not exhibit constituents above the laboratory method detection limit.

Groundwater Sample Results March 1995

The groundwater samples collected from near the former waste oil tank (SB-4, SB-5, SB-6) and down-gradient of the former waste oil tank (SB-14 and SB-15) reported dissolved concentrations of diesel ranging from less than the detection limit to 500 parts per billion (ppb) and dissolved concentrations of motor oil ranged from less than the detection limit to 2,100 ppb.

The groundwater samples collected adjacent to the former gasoline and diesel USTs (SB-7, SB-8, SB-9 and SB-10) and down-gradient of the gasoline and diesel tank (SB-16 and SB-17) reported dissolved concentrations of diesel from less than the detection limit to 2,300 ppb and concentrations of motor oil from 480 ppb to 7,600 ppb.

Free phase hydrocarbons were detected in soil boring SB-3 (characterized by the laboratory as TPH as mineral spirits) and 4,000 ppb as motor oil was detected in soil boring SB-2. Both of these borings are located near the oil/water separator north of the main building. TPH as diesel was detected in soil boring SB-1 at 260 ppb, located approximately 350 feet west of the CalTrans property line. Groundwater collected from soil boring SB-11, located at the western portion of the site near the garbage collection area, reported concentrations of motor oil at 2,000 ppb.

Soil Sample Results June 1995

The soil samples collected from borings SB-18 and SB-19 drilled near the garbage collection area and soil borings SB-24 through SB-26 drilled near the former USTs were not submitted for laboratory analysis. These samples were not analyzed because the extent of hydrocarbons in soil had been previously defined from data collected during the March 1995 field work. These borings drilled during the June 1995 field investigation were beyond the defined limits of the TPH in soil.

do I have?

The soil sample collected 10 feet below the ground surface from boring SB-20, north of the oil/water separator, detected concentrations of TPH as mineral spirits at 1,400 mg/kg.

Concentrations of TPH as gasoline was detected in the sample collected 10 feet below the ground surface from boring SB-23, southeast of the oil/water separator at 28 mg/kg.

Groundwater Sample Results June 1995

The groundwater samples collected and analyzed from borings SB-20 through 23, and SB-27 drilled near the oil/water separator indicated TPH as motor oil ranging from less than the detection limit to free phase hydrocarbons. Specifically, the groundwater sample collected from SB-20 contained free phase hydrocarbons which was characterized by the laboratory as containing 520,000 ug/l TPH as mineral spirits and 170,000 ug/l TPH as motor oil. The groundwater samples collected from SB-23 and SB-27 detected 23,000 ug/l and 16,000 ug/l TPH as motor oil, respectively. The groundwater samples collected from SB-21 and SB-22 did not report concentrations of TPH as motor oil above the laboratory detection limit. In addition, concentrations of TPH as gasoline was detected in the groundwater sample collected from SB-23 at 150 ug/l.

The groundwater samples collected and analyzed from borings SB-19, SB-24, SB-25, and SB-26 drilled in the interpreted down gradient direction of the former gasoline, diesel and waste oil USTs, indicated concentrations of TPH as motor oil from less than the laboratory detection limit to 44,000 ug/l TPH as motor oil. Specifically, the groundwater sample collected and analyzed from SB-19 contained concentrations of TPH as motor oil at 44,000 ug/l. The groundwater samples collected from SB-24 and SB-25 detected concentrations of TPH as motor oil at 13,000 ug/l and 17,000 ug/l, respectively. The groundwater sample collected from SB-26 did not report concentrations of TPH as motor oil above the laboratory detection limit.

The groundwater sample collected from SB-18 located near the garbage collection area did not detect concentrations of TPHs above the laboratory detection limit.

FINDINGS

Based on the results of Clayton's 1993 investigation, the investigation conducted in March, 1995 and the June 1995 investigation the following observations can be made:

- TPH-d reportedly remains in the soil near the former gasoline and diesel UST at concentrations ranging from 400 mg/kg at 2 feet (Clayton's boring B6-D) to 7,000 mg/kg at 10 feet (Clayton's boring B10-D).

- TPH-d and oil and grease remain in the soil near the former waste oil tank at concentrations ranging from 170 mg/kg at 4.5 feet (Clayton's boring B10-O) to 5 mg/kg at 9.5 feet (Clayton's boring B6-O) and 160 mg/kg oil and grease at 4.5 feet (Clayton's boring B10-O) to less than the detection limit at 9.5 feet (Clayton's boring

B6-O).

- TPH as mineral spirits/gasoline/kerosene are present in the soil near the oil/water separator at 10 feet below grade at concentrations of 140 mg/kg, 3,500 mg/kg (GTI boring SB-20), and 1800 mg/kg (GTI boring SB-3), respectively.

Based on the results the three investigations, petroleum hydrocarbons are present in the groundwater at the site. The recently completed field work suggests that primarily dissolved concentrations of motor oil, combined with mineral spirits and kerosene is present in groundwater in the area of the oil/water separator. In addition, dissolved concentrations of motor oil in groundwater appears to have migrated off-site in the southwest direction (toward I-880).

Based on these data groundwater monitoring wells are proposed at the site as indicated in Figure 5. These wells would be located in areas of the site in which the greatest impact to the subsurface has been defined and in areas up- and down-gradient of these areas to monitor groundwater quality and potential migration of hydrocarbons on-site and off-site. Specific proposed locations are as follows:

- two wells should be located in the estimated up and down-gradient direction of both the former gasoline and diesel USTs and the former waste oil tank to monitor the up and down-gradient quality of the groundwater near the tanks. One of the wells would be located in the area of Clayton's boring B3-O, near the waste oil tank, where free product was detected;
- two wells should be located off-site in CalTrans right-of-way (I-880) to monitor the groundwater quality in this area;
- two wells in the vicinity of the oil/water separator, one up gradient and one down-gradient;
- one well would be placed at the northern property boundary to characterize the groundwater migrating onto the site; and
- one well would be placed near soil boring SB-23 in which gasoline was detected to monitor the groundwater migrating on-site from the easterly direction.

Based on these recommendations and the original work plan submitted to GMC and the Alameda County Health Department, GTI will proceed with monitoring well installation, aquifer testing, the baseline risk assessment and the feasibility study. The attached schedule illustrates the proposed time line to complete these tasks. Obtaining access to CalTrans property for well installation is estimated at four weeks and will require a $10,000

refundable bond. Well installation, sampling and analysis can be completed in five weeks. The aquifer test will be performed immediately following receipt of laboratory data and is schedule to be completed in six weeks. The baseline risk assessment (RA) will be completed four weeks following receipt of the aquifer test results. The feasibility study will be completed and submitted to GMC within four weeks following completion of the RA. Assuming a revised start date of November 6, 1995, this schedule will result in a project completion date of May 3rd, 1996.

If you have any questions or would like to discuss the information presented above, please contact me at (216) 349-0004.

Sincerely,
Groundwater Technology, Inc.

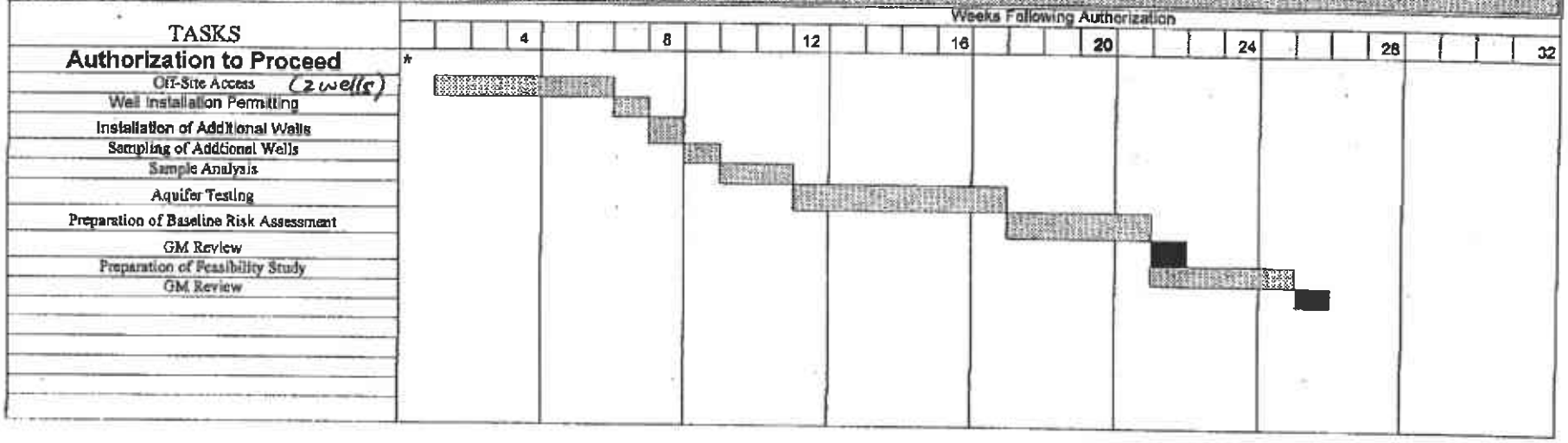
Chester J. Covert, CHMM
Program Director

cc: D. Arnold
M. Sieczkowski
B. Ferguson

1) Need to address all free product.

GROUNDWATER TECHNOLOGY

GANTT CHART - Project Schedule
PHASE III & IV EVALUATION
GENERAL MOTORS CORP
GMC Truck Center
Oakland, California
October 31, 1995



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