

KAMUR INDUSTRIES, INC.
2351 Shoreline Dr., Alameda, CA 94501-6228
(510) 523-7866 Fax (510) 523-3172

RECEIVED

By loprojectop at 11:26 am, Apr 17, 2006

April 12, 2006

Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway - Suite 250
Alameda, CA 94502-6577

Subject: Fuel Leak Case No. RO0000260, Plaza Car Wash, 400 San Pablo Ave,
Albany, CA
Addendum to Previously Submitted Work Plan

Ref: Your Letter Dated March 17, 2006

Dear Jerry:

Please find enclosed a copy of the subject Addendum prepared by Enviro Soil
Tech Consultants.

I declare, under penalty of perjury, that the information and/or recommendations
contained in this report are true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read "Murray T Stevens". The signature is fluid and cursive, with a large initial "M" and a long, sweeping underline.

Murray T Stevens, President
Kamur Industries Inc.

RECEIVED

By loprojectop at 11:26 am, Apr 17, 2006

**REVISED WORK PLAN FOR ADDITIONAL
SITE ASSESSMENT AT THE PROPERTY
LOCATED AT 400 SAN PABLO AVENUE
ALBANY, CALIFORNIA
APRIL 11, 2006**

**PREPARED FOR:
MR. MURRAY STEVENS
KAMUR INDUSTRIES, INC.
2351 SHORELINE DRIVE
ALAMEDA, CALIFORNIA 94501**

**BY:
ENVIRO SOIL TECH CONSULTANTS
131 TULLY ROAD
SAN JOSE, CALIFORNIA 95111**

ENVIRO SOIL TECH CONSULTANTS

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FIGURE 1 ... Site Plan Showing Locations of Proposed Borings

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APPENDIX "B"

PG&E's Report	
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File No. 8-90-421-SI

April 11, 2006

File No. 8-90-421-SI

Mr. Murray Stevens
Kamur Industries, Inc.
2351 Shoreline Drive
Alameda, California 94501

**SUBJECT: REVISED WORK PLAN FOR ADDITIONAL
SITE ASSESSMENT AT THE PROPERTY**
Located at 400 San Pablo Avenue, in
Albany, California

Dear Mr. Stevens:

In accordance with the directive issued by Mr. Jerry Wickham of Alameda County Health Care Services Agency (ACHCSA) in October 2005, Enviro Soil Tech Consultants (ESTC) has prepared a revised work plan to continue assessment of the properties located at 398 and 400 San Pablo Avenue, in Albany, California. The original work plan was submitted in June 2005.

File No. 8-90-421-SI

If you have any questions or require additional information, please feel free to contact our office at 408-297-1500.

Sincerely,

ENVIRO SOIL TECH CONSULTANTS



VICTOR B. CHERVEN, Ph.D.
REGISTERED GEOLOGIST #3475

A handwritten signature in dark ink, appearing to read "Lawrence Koo".

LAWRENCE KOO, P. E.
C. E. #34928

A handwritten signature in dark ink, appearing to read "Frank Hamedi-Fard".

FRANK HAMEDI-FARD
GENERAL MANAGER

ENVIRO SOIL TECH CONSULTANTS 2

1.0 INTRODUCTION

This work plan has been revised at the direction of Mr. Jerry Wickham of ACHCSA. The June 2005 plan has been modified to incorporate specific items requested by Mr. Wickham.

2.0 TASK DESCRIPTIONS

2.1 IDENTIFY AND CHARACTERIZE PRINCIPAL AQUIFER

Additional lithologic data are required to resolve uncertainties regarding the nature and geometry of the shallowest groundwater-bearing zone beneath the site. At the present time, the thickness, lateral extent, and hydrogeologic characteristics of the water-bearing zone are unclear. In the June 2005 work plan, ESTC proposed to drill three hollow-stem auger soil borings in the northern portion of the site to collect this lithologic information. ACHCSA has requested that this effort be expanded to include investigation of at least one other portion of the site.

In section 2.1.1, we describe the proposed drilling methods and boring locations. In section 2.1.2, we discuss the proposed analytical and testing methods.

2.1.1 Drilling and Sampling Methods

Since the work plan was submitted in June 2005, additional groundwater samples have been collected from the existing wells and provided new information about the lateral extent of groundwater contamination. Hydrocarbon isocontour maps are included in recent quarterly reports, and the contours are slightly elongated in a southeast-northwest direction, which suggests that this may be the principal contaminant transport

direction. Therefore, we have revised the proposed boring locations and added additional borings to create three linear transects through the site (Figure 1). One transect is oriented along the southeast-northwest axis, and the other two are oriented transverse to it. The three transects utilize existing wells where possible (STMW-2, MW-3, etc.) and intersect at STMW-1, which is the most contaminated well. The proposed boring distribution will not only allow the construction of three intersecting hydrogeologic cross sections, but will also facilitate the construction of an aquifer isopach map and make it possible to more accurately locate the lateral limits of groundwater contamination. This revision should therefore satisfy ACHCSA's request for investigation in more than one portion of the site area.

We propose to drill four new borings along transect A-A'. Two of these will be located between STMW-1 and MW-3, where no monitoring wells are currently available and groundwater concentrations are poorly controlled. The other two will be located southeast of STMW-1, in an upgradient position. One of these will be located near the former UST excavation and will be drilled through the area that was previously excavated to remove contaminated soil. The other will be near the eastern edge of the site, close to the inferred upgradient limit of contaminated groundwater.

Three additional borings will be located along transect B-B', and two borings will be on transect C-C' (Figure 1). Both borings on C-C' will be within the inferred groundwater plume, and at least one of the borings on B-B' will as well. The other two borings on B-B' should be close to or beyond the limits of the groundwater plume.

Two types of borings will be drilled. In the first phase of drilling, a cone penetrometer (CPT) rig will be mobilized and borings CPT-1 through CPT-3 will be drilled. The purposes of using CPT technology are to 1) provide a detailed foot-by-foot

lithologic log and 2) make it possible to collect discrete groundwater samples at selected depths to assess the vertical extent of groundwater contamination. Because all three of these CPT borings will be located within the known extent of the groundwater plume, they will help to resolve the benzene and TPHg isocontours in the central portion of the plume. Boring CPT-1, which is the most likely to encounter high concentrations, will be the deepest to insure that both the first and second water-bearing zones have been assessed. We estimate drilling this boring to a depth of between 60 and 75 feet. Figuers (1998) provided a somewhat generalized description of the hydrogeology of the Berkeley-El Cerrito area that suggested that there may be only a single water-bearing zone in the area, consisting of up to about 300 feet of relatively coarse-grained alluvial-fan deposits without significant interbedded estuarine mudstone layers. However, the more detailed information obtained by ESTC in earlier phases of investigation at this site indicates that such fine-grained and relatively impermeable deposits are indeed present, at least near the surface. Therefore, we do not believe it is likely that it would be necessary to drill to 300 feet to assess the vertical extent of contamination.

After the initial CPT boring has been drilled and the first and second water-bearing zones have been identified on the boring log, the rig will be moved over a few feet and a second boring will be drilled to collect water samples from both zones. Borings CPT-2 and CPT-3 will be drilled only deep enough to sample both zones, so it may not be necessary to drill them as deep as CPT-1 if the second water-bearing zone is shallower than 60 feet.

After the CPT boring logs have been analyzed and the water samples have been analyzed by the testing laboratory, a hollow-stem drilling rig will be moved on site and three borings (C-1, C-2, and C-3 in Figure 1) will be drilled. The purposes of drilling these borings will be to provide ground-truth data for comparison to the CPT logs and to

collect soil samples for chemical and hydrogeologic analysis. All three borings will be drilled through the first water-bearing zone, and if the water samples collected from the CPT borings indicated that groundwater in the second water bearing zone is also impacted, then the phase-2 borings will be drilled into the second zone so that soil samples can also be collected from this zone.

The samples will be collected using a split-spoon sampler loaded with brass sample tubes so that selected samples can be preserved. At a minimum, samples will be collected at 5-foot intervals to make it possible to correlate between borings, but additional samples will be collected at specific depths determined from the CPT-logs. These supplemental samples will be collected at lithologic contacts between water-bearing and non-water-bearing strata so that the exact thicknesses of water-bearing strata can be measured and changes in permeability at lithologic contacts can be determined.

The third phase of drilling will take place after the soil samples have been analyzed and tested for contaminants and aquifer characteristics. The main purpose of this phase of drilling will be to delineate the lateral extent of groundwater contamination, which is best accomplished by collecting grab groundwater samples. Although this can be done with a standard hollow-stem auger rig, utilizing the CPT rig will make the boring-to-boring lithologic correlations more rigorous and improve the understanding of the geometry of the water-bearing strata. Hence, borings CPT-4 through CPT-6 will utilize this method, and the borings will be drilled and sampled in a manner similar to CPT-2 and CPT-3.

In the fourth and final stage of drilling, the hollow-stem auger rig will be re-mobilized to install at least two additional monitoring wells. Both wells will be sampled at 5-foot intervals and/or at specific depths determined from borings drilled in phases 1-3.

One of these wells will be located near C-1, to provide long-term monitoring of both TPH and solvent concentrations near Norge Cleaners. The other well will be located at or perhaps west of boring CPT-5, depending on the analytical results obtained from the water sample from that boring. If sample CPT-5 was contaminated, a monitor well will be established west of its location. If requested by ACHCSA, additional monitor wells can be drilled during this fourth phase of drilling (such as near CPT-4 or CPT-6).

After drilling, all borings (not wells) will be backfilled with neat cement and drill cuttings will be stored on-site.

2.1.2 Analytical Methods

Soil samples from drilling phases 2 and 4 will be screened in the field with a portable photo-ionization detector for evidence of hydrocarbon odors, and PID readings will be recorded on the boring logs. A vertical sequence of samples, spaced no more than 10 feet apart, will be selected from each boring and transported to an environmental laboratory for analysis by EPA methods 8015, 8020, and 8260. This should provide a more satisfactory vertical delineation of the extent of contamination than has previously been available.

In addition, a minimum of six (6) soil samples, selected from borings C-1 to C-3 and the two monitoring wells, will be sent to an engineering testing laboratory to determine the hydraulic conductivity of the various water-bearing and non-water-bearing units. The selected samples will provide confirmation data for permeability estimates obtained from the CPT logs, which will strengthen interpretations about the groundwater flow characteristics of the site.

2.2 INSTALL ADDITIONAL MONITORING WELL

The new wells will be constructed of 15 feet of slotted 2-inch PVC casing from 20 to 15 feet below surface grade. After the wells have been drilled, they will be developed by purging several well volumes of groundwater to tighten the sand pack and remove sediment from the casing. They will then be added to the monitoring program of quarterly sampling.

2.3 ASSESS STORM DRAIN

2.3.1 Depth and Description of Storm Drain

ESTC was unable to obtain any additional information beyond what was reported in the *Revised Historical Events Report* (May 2005) regarding the exact location or depth of the storm drain that lies west of the site along Adams Street. Therefore, Kamur Industries is unable to comply with ACHCSA's request for a "full description of past excavation and repair activities affecting the storm drain" at this time.

2.3.2 Description of Past Activities

PG&E provided a copy of a brief report that was prepared in 1991 by Technical and Ecological Service—Chemical Analysis Services Unit, on behalf of PG&E (Appendix A). The work described in that report was apparently performed in conjunction with the installation of a natural gas line, not with investigation or remediation of the storm drain. However, it appears that the gas line is located near the storm drain, along the east side of Adams Street.

According to the TES report, three soil samples and seven water samples were collected between September 24 and October 8, 1991. A soil sample collected at an unspecified depth near the end of the street tested positive for Total Petroleum Hydrocarbons in the gasoline range (TPHg). A concentration of 660 parts per million (ppm) was reported. The sample was also analyzed for volatile gasoline constituents (BTEX), and these four compounds were detected at concentrations ranging from 2.3 to 96 ppm. The other two samples, collected from a spoils pile and from the bank of El Cerrito Creek, tested negative for TPH and Benzene but toluene, Ethylbenzene, and Xylene were detected at very low concentrations in the spoil pile sample.

A water sample collected 60 feet south of the Adams Street soil sample contained gasoline-range hydrocarbons at a concentration of 3,500 parts per billion (ppb) and BTEX at concentrations ranging from 72 to 350 ppb. Samples collected to the south of that location tested below the detection limits for all compounds.

As trenching ensued to install the gas main, groundwater entered and was pumped out into a two-tank filtering system for cleanup. A Granulated Activated Carbon (GAC) filter was used to treat the pumped water. A sample of untreated water tested positive for TPH-g (9,000 ppb), but a treated sample was below the detection limit and the water was discharged under Regional Water Board permit to El Cerrito Creek.

2.3.3 Proposed Drilling

ACHCSA has directed Kamur Industries to propose “investigation activities to assess potential discharges to the storm drain and ...monitoring of the storm drain outflow to El Cerrito Creek.” The Regional Water Quality Control Board released Kamur Industries from further monitoring of the storm drain in 1990. Since then, no monitoring has taken place, although groundwater monitoring wells along the creek have detected little or no hydrocarbon contamination.

Lacking additional information regarding the 1989 discharges from the storm drain or the general location of the storm drain repair work, it is difficult at this stage to identify precisely where drilling or excavation should take place. Assuming that the drain is located beneath Adams Street, excavation would be costly. Although a soil-vapor survey might be possible, it would require drilling numerous holes through the pavement in order to adequately map the extent of soil vapors (if any), and would not provide the opportunity to collect soil or water samples.

Instead, we propose to drill five shallow borings along the edge of the street to collect soil and groundwater samples to further assess the possibility that hydrocarbons have migrated west of the site toward the storm drain. The borings will be drilled using direct-push technology so that continuous samples can be collected, and all borings will be drilled to at least 10 feet. The cores will be screened with a portable photo-ionization detector in the field, and if hydrocarbons are detected visually or with the PID, the boring will be extended at least 5 feet below the last evidence of contamination. A water sample will be collected when the soil-water interface is reached, roughly at a depth of 10 feet. After sampling, the borings will be backfilled with neat cement.

At least two soil samples will be extracted from each core and analyzed for TPH-g, BTEX, and chlorinated hydrocarbons. The water samples will be analyzed for the same constituents.

The proposed borings are shown in Figure 1.

3.0 REFERENCES CITED

Figuers, Sandy, 1998, Groundwater study and water supply history of the East Bay Plain, Alameda and Contra Costa Counties, California: Livermore, California, Norfleet Consultants, 90 p.

A P P E N D I X "A"

FIGURES

**Enviro Soil Tech
Consultants**

131 Tully Road
San Jose, CA 95112

PROJECT
Plaza Car Wash
400 San Pablo Ave
Albany, California

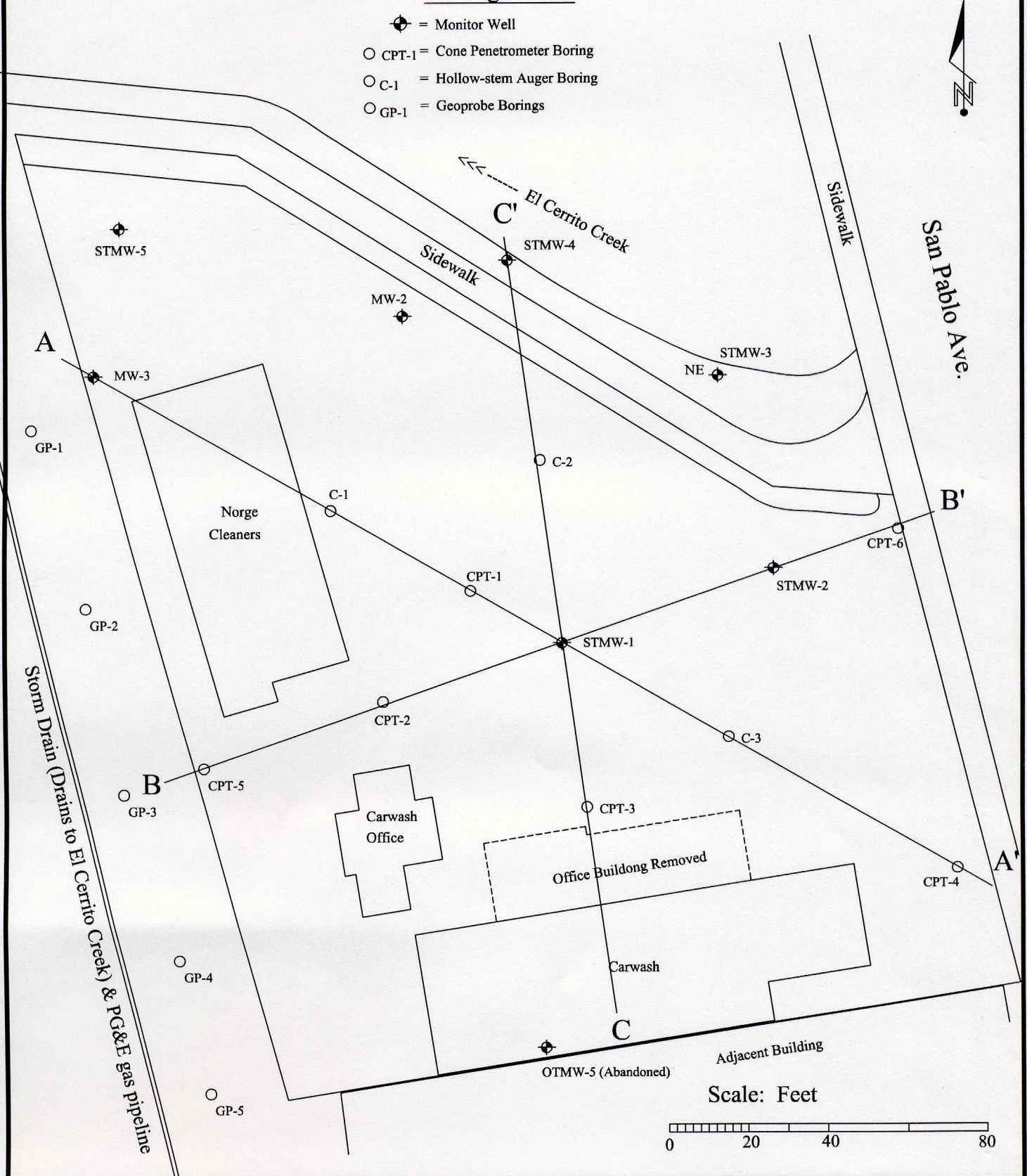
PROJECT # 8-90-421-SI
DATE: 4/7/2006

Figure 1

Proposed Wells

Legend

- ◆ = Monitor Well
- CPT-1 = Cone Penetrometer Boring
- C-1 = Hollow-stem Auger Boring
- GP-1 = Geoprobe Borings



A P P E N D I X "B"

PG&E'S REPORT

ENVIRO SOIL TECH CONSULTANTS

December 6, 1991

Mr. M. H. Kazemi
California Regional Water Quality Control Board
2101 Webster St.
Oakland, CA

Dear Mr. Kazemi:

Technical and Ecological Services - Chemical Analysis Services Unit was requested by PG&E's Northern Pipe Line Operations to investigate possible gasoline contamination at the end of Adams St. in Albany on September 24th, 1991. Contamination was suspected when a gasoline-like odor was encountered by construction workers while installing gas main. Initial investigative samples were analyzed by American Environmental Laboratories of Rancho Cordova. Waste water discharge samples were analyzed by Chromalab Inc., of San Ramon, to allow for faster response.

Field Sampling

Samples were placed in clean glass jars and labeled with the date, time, sampler's initial, location, analyses to be done; then logged onto a chain-of-custody, placed on ice and transported to the laboratory. Water samples were taken using a disposable colliwasa sampler. Soil samples were taken with a stainless steel trowel cleaned with detergent and distilled water after each use.

Instrumentation

This service was provided using a Total Ionizables Present (TIP) detection system from Photovac Incorporated. The TIP measures any airborne contaminant which is detectable by photoionization. An ultraviolet source is used to ionize the molecules of substance which are in their gaseous or vapor state. These ions are then collected on positive and negative electrodes which results in a flow of current proportional to the amount of chemical present. Ionization is determined by the minimum energy required to produce ions, or the ionization potential, which varies from substance to substance.

A small pump continuously draws sample air into the ionization chamber which is flooded with ultraviolet light. Air gases (hydrogen, helium, nitrogen, etc.) are unaffected as they require an ionization energy higher than that generated by the lamp. Any gases or vapors in the air stream which have ionization energy higher than that generated by the lamp are ionized; this group includes most compounds we describe as pollutants. The signal is amplified and produces a numerical reading in parts per million (ppm). Because it is sensitive to a broad range of compounds, this numerical result cannot be considered quantitative and should only be used as an estimate of contamination present.

Investigation and Sampling - September 24th, 1991

3 soil samples were taken from the area, as indicated on the map. The samples were analyzed for Total Petroleum Hydrocarbons as Gasoline, Diesel (TPH), Organic Lead, Benzene, Toluene,

Mr. Kazemi
December 6, 1991
Page 2

Ethylbenzene and Xylene (BTEX). Sample #1 was taken from a bell hole next to the curb at the end of Adams St. Initial readings from the TIP detector were at levels of 1500 to 2000 parts per million. Soil analyses showed 660 ppm of TPH as Gasoline. Sample #2 was taken from a spoils pile (soil from the creek bed). TIP readings were negative and soil analysis showed no compounds above the detection limits. Sample #3 was taken from the creek bank. Again TIP readings were negative and soil analysis showed no compounds above the detection limits.

Investigation and Sampling - September 27th, 1991

Two water samples were taken from bell holes in Adams St. in an attempt to establish the boundaries of the gasoline contamination. Sample #4 was taken 98 feet south of sample location #1. Results from TIP readings were negative and laboratory analyses showed no compounds above the detection limits. Sample #5 was taken 200 ft. south of sample location #4. Again TIP readings were negative and laboratory analyses showed no compounds above the detection limit of 1ppm. The gasoline contamination was believed to be within a 60 ft. section of trench south of the sidewalk.

Investigation and Sampling - October 3rd, 1991

One water sample was taken from a bell hole 60 ft. south of sample location #1. Sample #6 showed TIP readings of 20 to 40 ppm and laboratory results of 3.5 ppm of TPH as gasoline. Subsequent TIP readings south of this location were negative. Contaminated water was encountered at a depth of 6 ft. during trenching operations in the area. As a result of this, a letter was sent to the Regional Water Quality Control Board requesting permission to use a Baker Tank system with a charcoal filter to settle any solids and remove the gasoline from the water. Contaminated soil was stockpiled on top of visqueen and covered.

Tank and Filtering System Setup and Sampling - October 7th, 1991

A Baker Tank system with a charcoal filter was set up to filter contaminated water originating from the area of contamination (approx. 60 feet long) during work in that area. Two Baker tanks were used to settle solids that were stirred up during normal excavation procedures, before discharge to a nearby creek. Sample #7 was taken from the second Baker tank and showed results of 9.0 ppm of TPH as gasoline. Sample #7A was taken after the water was run through the charcoal filter system and showed no compounds that were above the detection limit. Upon verbal approval from the regional board, the water was discharged to the creek (after flowing through both tanks and the filter system).

Sampling - October 8th, 1991

The tank system and filtering process presented operational problems because the filtration process could not keep up with flow of water into the tank system. The Foreman for ARB, Inc. (contractor to PG&E for this job), discussed this situation with the RWQCB on Oct. 8th, 1991. At this time, the agency indicated that because TPH values were low, discharge would be limited to a single event and that direct discharge of untreated water to the creek would be permitted. Sample #8 was taken from the tank drain hose directly entering the storm sewer. Laboratory results showed 5.3 ppm of TPH as gasoline. After work was completed in the contaminated area, it was backfilled and a slurry plug was installed in the area by the side walk to prevent contaminated water from flowing into the

Mr. Kazemi
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Page 3

trench on the north side of the sidewalk. Sample #9 was taken from the trench area on the north side of the sidewalk. Laboratory results showed 510 parts per billion (ppb). Carbon filtration was used to treat this water prior to discharge.

During this period a permit application, along with the appropriate fee, was hand delivered to the State Regional Water Quality Control Board at 2101 Webster St., 5th floor, in Oakland.

Sampling October - 14th, 1991

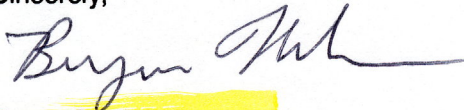
Sample #10 was obtained from the contaminated soil pile after it had been aerated. Laboratory results were below detection limits for TPH as gasoline, the detection limit being 1.0 ppm. The soil was then transported off site.

Quality Assurance Data

Attached are the laboratory quality assurance data. Matrix spike samples and duplicates ensure that compounds are being recovered at acceptable levels and with consistency.

Laboratory results and a map detailing sample locations are also attached. If you have any questions, please call me at (510) 866-5477 or Jeri Pollock at (510) 866-5477.

Sincerely,



Bryan C. Nicholson

BCN:jal
92240/ppu31wp

pc: TFinger-Encon Gas
RAMcCurdy
JCPollock
JPullens-Encon Gas
SGSharp

Table 1. Adams Street Sampling Results

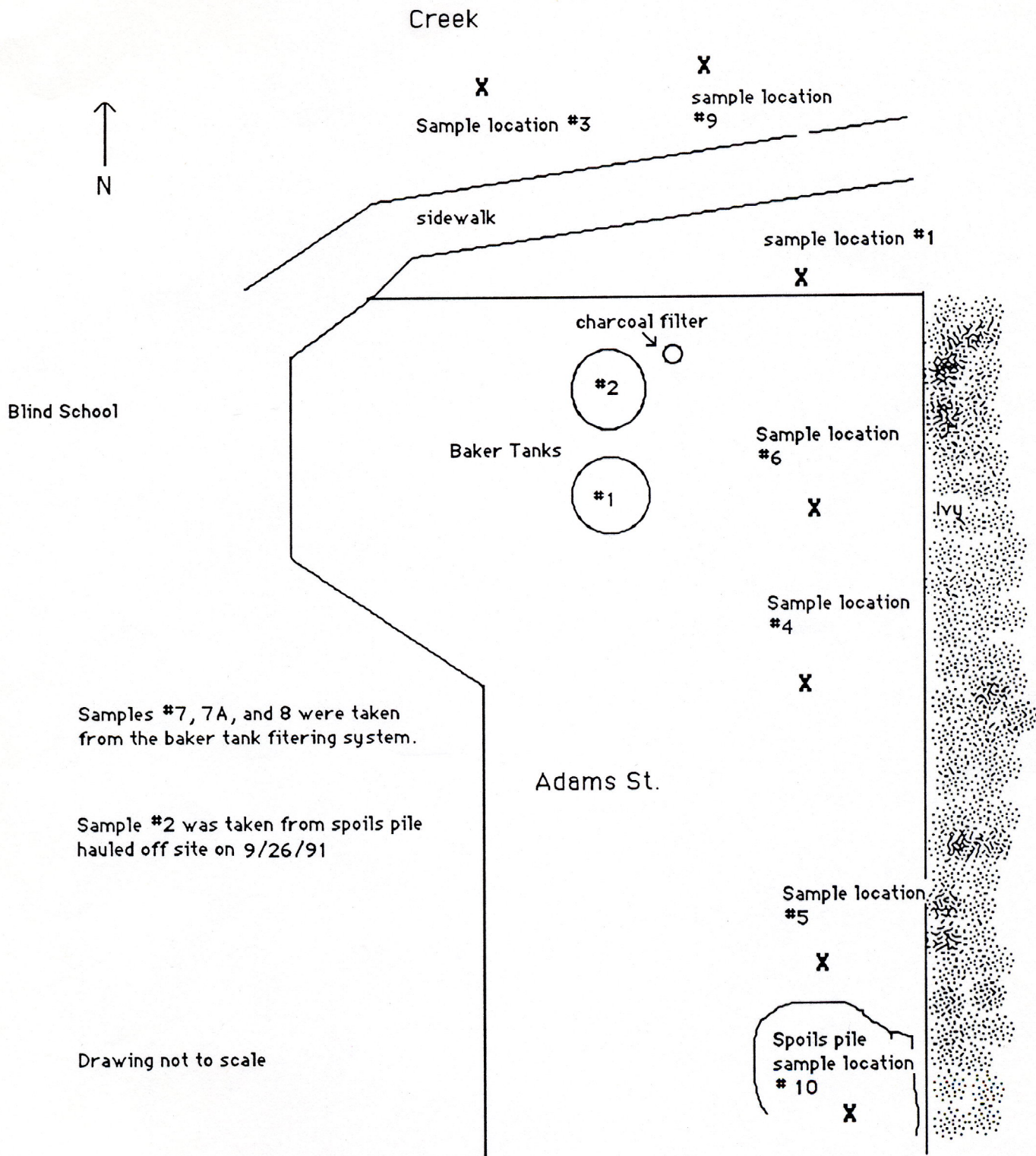
Sample Location & matrix	Date Sampled	TPH as Gasoline	Organic Lead	TPH as Diesel	Fish Bioassay %survival
#1 soil	9/24/91	660	ND	ND	NA
#2 soil	9/24/91	ND	ND	ND	NA
#3 soil	9/24/91	ND	ND	ND	NA
#4 soil	9/27/91	ND	ND	ND	100%
#5 water	9/27/91	ND	ND	ND	100%
#6 water	10/3/91	3.5	ND	ND	100%
#7 water	10/7/91	9	NA	NA	NA
#7A water	10/7/91	ND	NA	NA	NA
#8 water	10/8/91	0.53	NA	NA	NA
#9 water	10/8/91	0.51	NA	NA	NA
#10 soil	10/14/91	ND	NA	NA	NA
Detection Limit		0.05	1	0.2	-

Water results are expressed in Mg/L
 Soil results are expressed in Mg/Kg

Sample Location	Benzene ug/kg	Toluene ug/kg	Ethyl Benzene ug/kg	Xylene ug/kg
#1 soil	2300	32000	18000	96000
#2 soil	ND	23	16	83
#3 soil	ND	ND	ND	ND
#4 soil	ND	ND	ND	ND
#5 water	ND	ND	ND	ND
#6 water	160	250	72	350
#7 water	NA	NA	NA	NA
#7A water	NA	NA	NA	NA
#8 water	NA	NA	NA	NA
#9 water	NA	NA	NA	NA
#10 soil	NA	NA	NA	NA
Detection Limit	5	5	5	10

ND= at or below detection limit
 NA= not analyzed

Water results are expressed in Ug/L
 Soil results are expressed in Ug/Kg



Samples #7, 7A, and 8 were taken from the baker tank filtering system.

Sample #2 was taken from spoils pile hauled off site on 9/26/91

Drawing not to scale

Figure 1. Adams St. Sampling Locations