December 28, 2000

R0460

Ms. eva chu
Alameda County Health Care Services Agency
Environmental Protection
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: Report of November 29, 2000, Groundwater Sampling, 1347 Park Street, Alameda, California

Dear Ms. chu:

ALLCAL Environmental (ALLCAL) is pleased to submit this report on behalf of Mr. Steve Simi (Client). The following documents the sampling of groundwater monitoring well MW-1, at the above referenced site, on November 29, 2000. The Alameda County Health Care Services Agency (ACHCSA) requested quarterly sampling in an April 26, 2000, letter.

BACKGROUND

A 1,500-gallon, heating oil, underground storage tank (UST) was removed from the site in November, 1995 (see attached SITE PLAN). On that date, soil samples collected from the sidewalls of the tank excavation, at a depth of about 11 feet, detected elevated diesel range hydrocarbons. A soil sample collected from the floor of the excavation, at a depth of about 14 feet, was non-detectable for hydrocarbons. In December, 1995, over-excavation was conducted, and a soil sample was collected from each sidewall at a depth of about 12 feet. Three of the four samples detected elevated diesel range hydrocarbons. The excavation was backfilled with clean imported fill material and re-surfaced to match the existing grade.

In September, 1998, GRIBI Associates (GRIBI) conducted a soil and groundwater investigation to assess the extent of the contamination detected after conducting over-excavation. Three borings (IB-1, IB-2, and IB-3) were hand-augered to depths ranging from 11.5 to 13 feet at locations southeast, west, and southwest of the former UST. Elevated petroleum hydrocarbons were detected in soil and groundwater samples collected from borings IB-1 and IB-2 (southeasterly and southwesterly of the former UST).

Based on results of the above soil and groundwater investigation, the ACHCSA requested that a groundwater monitoring well be installed southeasterly of the former UST, near boring IB-1, to further evaluate groundwater quality beneath the site.

27973 HIGH COUNTRY DRIVE • HAYWARD, CA 94542-2530 • (510)581-2320 • FAX (510) 581-8490
e-mail • mrakovich@worldnet.att.net

On February 25, 2000, ALLCAL installed groundwater monitoring well MW-1 in the parking lane immediately adjacent to former boring IB-1 (see attached SITE PLAN). The well was sampled on February 28, May 18, and August 24, 2000; see the table below for results of chemical analyses.

GROUNDWATER SAMPLING EVENT-11/29/2000

The following work was conducted to sample well MW-1:

- Obtained an Encroachment Permit from the City of Alameda and posted parking control signs 24 hours in advance of sampling.
- Purged and sampled groundwater from the well.
- Analyzed the groundwater sample for total petroleum hydrocarbons as gasoline, diesel, and motor oil (TPHG, TPHD, and TPHMO); benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tert-butyl ether (MTBE); and polynuclear aromatic hydrocarbons (PNAs).
- Prepared this report.

Details of the above work are presented below.

Encroachment Permit:

On November 27, 2000, ALLCAL visited the City of Alameda Public Works Department and obtained an Encroachment Permit [attached (# EN00-072)] for two metered spaces. A fee was paid and parking control signs were posted 24 hours in advance of sampling well MW-1.

Groundwater Sampling Procedure:

Well MW-1 was sampled on November 29, 2000.

Prior to sampling, an attempt was made to measure the depth to groundwater from top-of-casing with an electronic water level meter. This measurement was to be used to calculate the volume of water in the well and the minimum number of well volumes (three volumes recommended per regulator protocal) to purge, prior to sampling. However, depth to water could not be measured due to the presence of sticky, low viscosity, tar-like floating product. The tar-like product coated the electronic probe which prevented the probe from detecting the underlying water interface. The top of the floating product was estimated to be 9.8 feet below grade. The thickness of the product could not be measured. Since the volume of water in the well's casing could not be calculated, the volume was assumed to be the same as the last quarters' sampling event, 0.33 gallon. A minimum purge volume of .99 gallons was assumed.

The well was purged with a, dedicated, polyethylene disposable bailer until the minimum purge volume was reached and until the parameters of temperature, pH, and electrical conductivity (measured with a Hydac meter) stabilized (see attached Record of Water Sampling). A total of .99 gallons of water was purged.

After purging, a groundwater sample was collected with the dedicated bailer and decanted into two, 40-milliliter, VOA bottles having Teflon-lined caps and septa, and two 1-liter amber bottles. The bottles were labeled to show site address, sample and sampler name, date and time sampled, and placed in an iced-cooler for delivery, under chain-of-custody (attached), to California Department of Health Services certified McCampbell Analytical Inc. (McCampbell) laboratory located in Pacheco, California. A trip blank sample was also stored as above and delivered to McCampbell for analysis as a test for cross-contamination during the collection of samples and during their analyses.

The groundwater and trip blank samples were analyzed for TPHG, BTEX, and MTBE by EPA method GCFID(5030)/modified 8015, EPA method 8020, and EPA method 8020, respectively. Additionally, the groundwater sample was analyzed for TPHD and TPHMO by EPA method GCFID(3550)/modified 8015 and for PNAs by EPA methods 625 (modified 610) and 3510.

Results of Chemical Analyses:

TPHG was detected at a concentration of 160 parts per billion (ppb). The laboratory noted that the TPHG chromatogram indicated significant heavier gasoline range compounds (aged gasoline?) and lighter than ~~water immiscible sheen was present.~~ Ethylbenzene was detected at a concentration of 0.74 ppb; no other BTEX compounds or MTBE were detected.

TPHD and TPHMO were detected at concentrations of 140,000 ppb and 130,000 ppb, respectively. The laboratory noted that the TPHD chromatogram indicated diesel and oil range compounds are significant (the diesel range had no recognizable pattern) and a lighter than water immiscible sheen was present.

No PNA's were detected at the elevated reporting limit of <2500 ppb.

Results of chemical analyses for the trip blank sample were non-detectable.

A cumulative summary of groundwater analytical results are presented in the following table. Detailed results of chemical analyses for the subject sampling event are included in the attached certified analytical report from McCampbell.

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS (ppb)

Date	Depth-to-Water	TPHG	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	TPHD	TPHMO	PNA's
2/28/00	8.75	570,b,h	<5.0	2.3	2.4	2.1	20	130000 b,g,h	10000	70 Naphthalene
5/18/00	8.99	130,g	<5.0	<0.5	<0.5	<0.5	<0.5	7100 b,g	5100	<25 (for all)
8/24/00	11.75	130,b	<5.0	<0.5	<0.5	<0.5	<0.5	6100 b,g	4800	<25 (for all)
11/29/00	?	160,b,h	<5.0	<0.5	<0.5	0.74	<0.5	140000 b,g,h	130000	<2500 (for all)

NOTES: TPHG Chromatogram: (b) heavier gasoline range compounds are significant (aged gasoline?). (g) strongly aged gasoline or diesel range compounds are significant. (h) lighter than water immiscible sheen is present. TPHD Chromatogram: (b) diesel range compounds are significant; no recognizable pattern. (g) oil range compounds are significant. (h) lighter than water immiscible sheen is present.

COMMENTS

Depth to groundwater could not be determined because the sticky, tar-like floating product that coated the electronic water sensor. The top of floating product was estimated to be about 10 feet below grade. The floating product appeared to be mostly bailed from the well during purging.

Concentrations of TPHD and TPHMO significantly increased when compared to the prior two sampling events of 8/24/00 and 5/18/00.

RECOMMENDATION FOR SITE CLOSURE

As an evaluation of the potential risk that contamination in the soil may pose to human health and the environment at the subject site, ALLCAL will limit its observations and opinions to concentrations of TPHG, BTEX and PNA chemicals reported by GRIBI in boring IB-1 in their November 16, 1998, *Report of Soil and Groundwater Investigation*. As an evaluation of the potential risk that contamination in the groundwater may pose to human health and the environment at the subject site, ALLCAL will limit its observations and opinions to concentrations of TPHG, BTEX and PNA chemicals reported in ALLCAL's four quarterly reports of sampling well MW-1.

The contaminant concentrations discussed will be compared to an appropriate lookup table presented in a document prepared by staff of the California Regional Water Quality Control Board, Bay Area Region, entitled *Application of Risk-Based Screening Levels (RBSLs) and Decision Making to Sites With Impacted Soil and Groundwater* (Interim Final - August 2000). This document presents very conservative RBSLs (concentrations) of some chemicals that, when detected below these concentrations, can be assumed not to pose a significant threat to human health and the environment (within limitations described in the document).

Based on the apparent current zoning of commercial land use for the site, the presence of shallow soil contamination (8.5 feet below grade in GRIBI boring IB-1), and the assumed absence of shallow drinking water wells, Table B-Industrial/Commercial Land Use has been selected for evaluating soil and groundwater contaminant concentrations.

Soil

The primary environmental concerns for soil included in Table B are: (1) direct contact, (2) potential emissions of VOCs to indoor air, and (3) potential leaching of chemicals from soil and subsequent impacts on groundwater.

For the fuel chemicals, TPHG, benzene, toluene, ethylbenzene, and xylenes were reported in boring IB-1 by GRIBI at concentrations of 200 parts per million (ppm), 0.11 ppm, 0.25 ppm, 0.60 ppm, and 1.4 ppm, respectively. These concentrations are compared with RBSL values of 400 ppm, 0.39 ppm, 8.4 ppm, 24 ppm, and 1.0 ppm, respectively. Only xylenes have a slightly higher concentration than its RBSL.

For PNAs, Napthalene, 2-Methylnaphthalene, Phenanthrene, Pyrene, and Chrysene were reported above a detection limit of <3.4 ppm at concentrations of 7.4 ppm, 28 ppm, 8.3 ppm, 5.0 ppm, and 5.1 ppm, respectively. These concentrations are compared with RBSL values of 4.9 ppm, 0.25 ppm, 11 ppm, 55 ppm, and 4.7 ppm, respectively. Napthalene, 2-Methylnaphthalene, and Chrysene slightly exceed their RBSL's. The detection limit of <3.4 ppm exceeded the RBSL of several of the PNAs.

Because a ground cover of asphalt and/or concrete seals the above chemicals that exceed their RBSLs, and assuming the soil plume is small in area and does not increase in contaminant concentrations (further site characterization would be required to test the assumption), it is ALLCAL's opinion that soil contamination in the subject area does not pose a significant threat to human health and the environment.

Groundwater

The primary environmental concerns for groundwater included in Table B are: (1) potential impacts to surface water bodies, (2) potential emissions of VOCs to indoor air, and (3) potential impacts to drinking water resources. In well MW-1, groundwater has been measured ranging in depth from about 9 to 12 feet below grade over the four quarters.

For fuel chemicals, TPHG has been detected in all four quarterly sampling events. However, all BTEX chemicals were nondetectable for the last three quarterly sampling events, with the exception that ethylbenzene which was detected in the last sampling event (11/29/00). For the last event, TPHG and ethylbenzene were detected at concentrations of 160 ppb and 0.74 ppb, respectively. These concentrations are compared with RBSLs of 500 ppb and 290 ppb, respectively.

For PNAs, all were nondetectable for the last three quarterly sampling events at elevated reporting limits of <25 ppb or <2500 ppb. ALLCAL understands the reporting limits are elevated due to the high TPHD and TPHMO concentrations. The standard PNA reporting limit is 10 ppb. Because of the elevated reporting limits, some PNAs could potentially be present in the water samples at concentrations above 10 ppb and below <25 ppb.

Assuming the groundwater plume is small in area and does not increase in contaminant concentrations for the above analytes (further site characterization would be required to test the assumption), it is ALLCAL's opinion that groundwater contamination in the subject area does not pose a significant threat to human health and the environment. A "grab" groundwater sample by GRIBI from the immediately adjacent easterly property (1349 Park Street), about 20 to 30 feet from well MW-1, tested nondetectable for TPHD and TPHMO in August 1999 as evidence that the groundwater plume may be small in area.

Floating Product and TPHD and TPHMO Concentrations

Several inches of thick, sticky, floating product has been present in the well during the last two quarterly sampling events. TPHD and TPHMO concentrations have ranged from 6100 ppb to 140000 ppb and 4800 ppb to 130000 ppb, respectively.

The thick, sticky character of the floating product suggests that it may not migrate more than a few feet. Because of the above GRIBI "grab" water sample at the adjacent property which was nondetectable for TPHD and TPHMO, it is ALLCAL's opinion that the TPHD and TPHMO groundwater plumes are small in area. Consequently, it is ALLCAL's opinion that these plumes do not pose a significant threat to human health and the environment.

Based on the above discussion, it is ALLCAL's opinion that the site be granted closure with respect to the documented analytes.

Other observations that may assist in justifying site closure are:

- The underground fuel tank that may have been the source of some or all contamination has been removed.
- Because of the heavy pedestrian and vehicle traffic, it would be physically difficult and expensive to justify further site characterization and/or remediation.

If you have any questions regarding the above report, please contact me at (510) 581-2320.

Sincerely,

John V. Mrakovich, Ph.D.
Registered Geologist Number 4665

cc: Steve Simi
COCHRAN & CELLI INC.
2735 Broadway
Oakland, CA 94612
510|588-2013

950 West Mall Square, #110
Alameda Point
Alameda, CA 94501

CITY OF ALAMEDA

Public Works Department

(510) 749-5840
Fax (510) 749-5867

Printed: ***11-28-2000***

Encroachment Permit

Permit #
EN00-072

Applicant
JOHN MRAKOVICH
RUSSI JAMES F & ARLEEN M TRS
ALLCAL ENVIRONMENTAL
27973 HIGH COUNTRY DRIVE
HAYWARD, CA 94542
510-581-2320

Contractor Information

Owner Information
428 YORKSHIRE RD
ALAMEDA CA
94501

Project Information
ENCROACH - Encroachment Permit - ***APPROVED***
Sub-Type:

Applied: **11/28/2000**
Finaled:

Issued: **11/28/2000**
Expires: **11/28/2001**
Valuation: **$11.00**

Job Address: **1347 PARK ST**
071 020400904
Suite / Unit:
Parcel Number:
Work Description: **2 METERED SPACES FOR 1 DAY (11/29/00)**

Total Fees:	$0.00
Total Payments:	$0.00
BALANCE DUE	**$0.00**

Payments Made:
Total Payment: **$.00**

RECEIPT
Payee:

Receipt #:

Current Payment Made to the Following Items:

Payments Made for this Receipt:

Type	Method	Description	Amount

Account Summary for Fees and Payments:

Item#	Description	Account Code	Tot Fee	Paid	Prev. Pmts	Cur. Pmts
240	Encroachment Fees	4520-33410 (1011)	2.00	.00	.00	.00
1060	Fees Adjust. Prev Paid	001-99960	-11.00	.00	.00	.00
1150	Parking Meter Revenue	224-37330 (8763)	9.00	.00	.00	.00

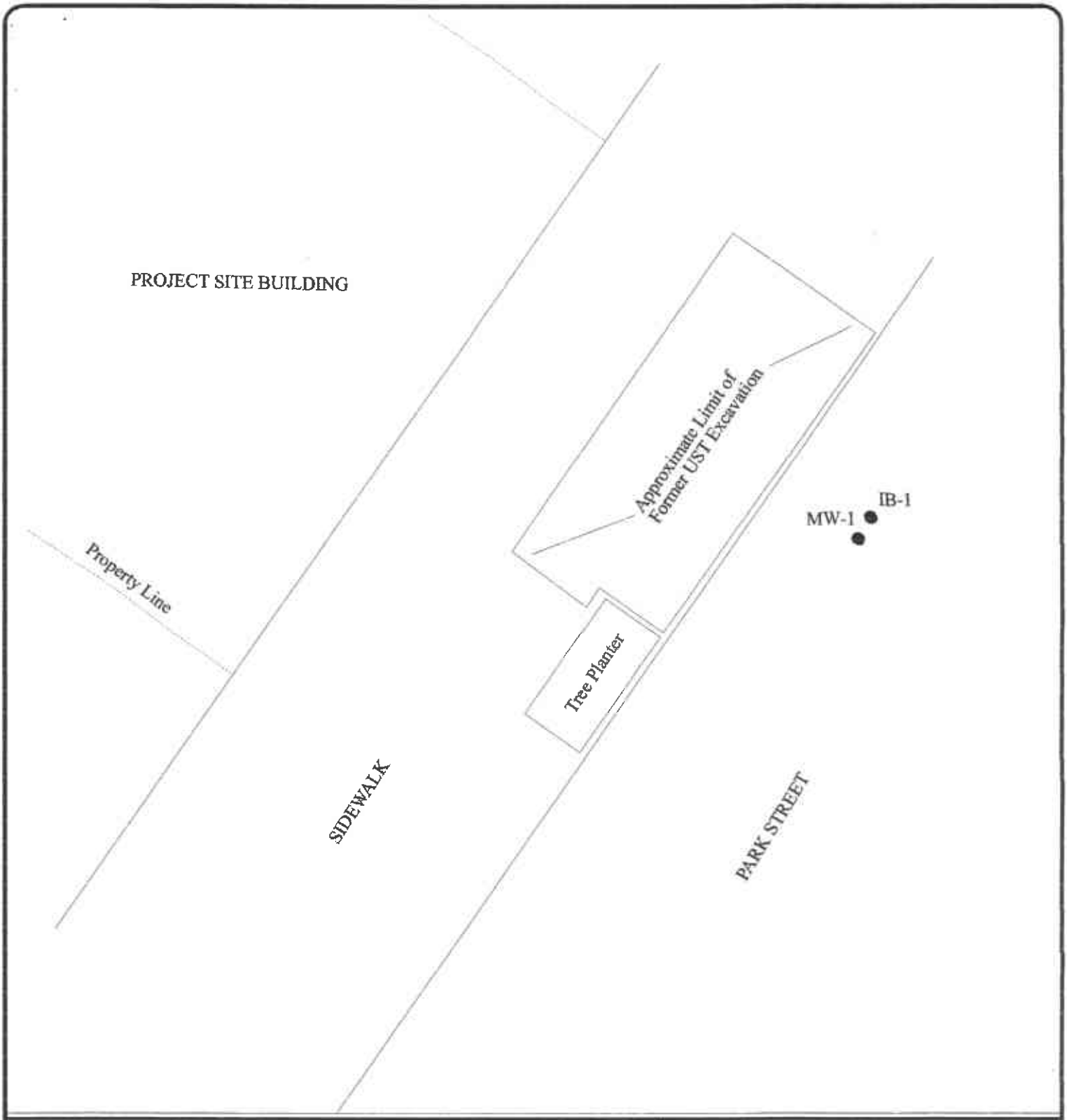
INSPECTIONS
Call for an inspection when work is complete.

510-749-5840

This is to certify that the above work has been completed to my satisfaction and approval.

11/29/2000
Date

Inspector



Legend

IB-1
● Name and Location of Soil Boring by GRIBI

MW-1
● Name and Location of Groundwater Monitoring Well

0 5
Approximate Scale (ft)

N

ALLCAL ENVIRONMENTAL

SITE PLAN

1347 PARK STREET
ALAMEDA, CA

RECORD OF WATER SAMPLING

PROJECT NO.: 146 DATE: 11/29/00

WELL NO.: MW-1

PROJECT NAME: 1347 PARK STREET

WELL DIAMETER: 1"

PROJECT LOCATION: ALAMEDA, CA

TOC ELEV: NA

SAMPLER: ALLCAL ENVIRON/JVM

LOCK NO.:

ANALYSES: TPHG, BTEX, TPHD, TPHMO, PNA, MTBE

WELL DEPTH (from construction detail): 19.80

WELL DEPTH (measured):_____ SOFT BOTTOM?:_____

DEPTH TO WATER:_____ TIME:_____

PRESSURE (circle one)?: YES OR NO

IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?

WATER VOLUME IN WELL:_____

[2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT]

[6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]

1-INCH CASING = 0.041 GAL/FT

LOCATION MAP

CALCULATED PURGE VOL. (GAL):_____(L):_____ ACTUAL PURGE VOL. (GAL):_____(L):_____

PURGE METHOD: DISPOSABLE BAILER SAMPLE METHOD: DISPOSABLE BAILER

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pH	EC X1000	Clarity	Turbidity (NTU)	Remarks
950		32	65.8	11.48	.60			TURBID - BROWN FLOATING PRODUCT
1002		64	66.1	10.95	.51			
1012		96	67.2	10.57	.47			
1015		128	68.0	10.27	.49			
1030	SAMPLE							

SIGNATURE: Jo Mrakovich

WATER VOL. IN DRUM:_____

NEED NEW DRUM?:_____

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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http://www.mccampbell.com E-mail: main@mccampbell.com

ALLCAL Environmental 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: #146	Date Sampled: 11/29/00
		Date Received: 11/29/00
	Client Contact: John Mrakovich	Date Extracted: 11/29/00
	Client P.O:	Date Analyzed: 11/29/00

12/05/00

Dear John:

Enclosed are:

1). the results of **2** samples from your **#146** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

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ALLCAL Environmental	Client Project ID: #146	Date Sampled: 11/29/00
27973 High Country Drive		Date Received: 11/29/00
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 11/29-12/01/00
	Client P.O:	Date Analyzed: 11/29-12/01/00

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
54630	Trip Blank	W	ND	ND	ND	ND	ND	ND	104
54631	MW-1	W	160,b,h	ND	ND	ND	0.74	4.5	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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ALLCAL Environmental	Client Project ID: #146	Date Sampled: 11/29/00
27973 High Country Drive		Date Received: 11/29/00
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 11/29/00
	Client P.O:	Date Analyzed: 11/29/00

Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	TPH(mo)+	% Recovery Surrogate
54631	MW-1	W	140,000,b,g,h	130,000	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	250 ug/L	
		S	1.0 mg/kg	5.0 mg/kg	

*water samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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ALLCAL Environmental	Client Project ID: #146	Date Sampled: 11/29/00
27973 High Country Drive		Date Received: 11/29/00
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 11/29/00
	Client P.O:	Date Analyzed: 12/06/00

Polynuclear Aromatic Hydrocarbons (PAH / PNA) by GC-MS

EPA methods 625 (modified 610) and 3510 or 8270 (modified 8100) and 3550

Lab ID	54631					Reporting Limit	
Client ID	MW-1					S	W, STLC TCLP
Matrix	W						
Compound	Concentration*					mg/kg	ug/L
Acenaphthene	ND<2500					0.33	10
Acenaphthylne	ND<2500					0.33	10
Anthracene	ND<2500					0.33	10
Benzo(a)anthracene	ND<2500					0.33	10
Benzo(b)fluoranthene	ND<2500					0.33	10
Benzo(k)fluoranthene	ND<2500					0.33	10
Benzo(g,h,i)perylene	ND<2500					0.33	10
Benzo(a)pyrene	ND<2500					0.33	10
Chrysene	ND<2500					0.33	10
Dibenzo(a,h)anthracene	ND<2500					0.33	10
Fluoranthene	ND<2500					0.33	10
Fluorene	ND<2500					0.33	10
Indeno(1,2,3-cd)pyrene	ND<2500					0.33	10
Naphthalene	ND<2500					0.33	10
Phenanthrene	ND<2500					0.33	10
Pyrene	ND<2500					0.33	10
% Recovery Surrogate 1	---#						
% Recovery Surrogate 2	---#						
Comments	h,j						

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

surrogate diluted out of range or surrogate coelutes with another peak

(h) a lighter than water immiscible sheen is present; (i) liquid sample that contains >~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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QC REPORT

Date: 11/29/00 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 112300				Instrument: GC-12			
Surrogate1	0.000	100.0	101.0	100.00	100	101	1.0
Xylenes	0.000	283.0	291.0	300.00	94	97	2.8
Ethyl Benzene	0.000	95.0	98.0	100.00	95	98	3.1
Toluene	0.000	97.0	99.0	100.00	97	99	2.0
Benzene	0.000	99.0	102.0	100.00	99	102	3.0
MTBE	0.000	91.0	92.0	100.00	91	92	1.1
GAS	0.000	1272.6	1307.7	1000.00	127	131	2.7
SampleID: 112400				Instrument: GC-11 A			
Surrogate1	0.000	106.0	105.0	100.00	106	105	0.9
TPH (diesel)	0.000	293.0	293.0	300.00	98	98	0.0

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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QC REPORT

SVOCs (EPA 8270/625/525)

Date: 12/06/00-12/07/00 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 120600				Instrument: GC-8			
Surrogate1	0.000	450.0	460.0	1000.00	45	46	2.2
Pyrene	0.000	380.0	370.0	1000.00	38	37	2.7
Pentachlorophenol	0.000	460.0	410.0	1000.00	46	41	11.5
2,4-Dinitrotoluene	0.000	450.0	420.0	1000.00	45	42	6.9
Acenaphtene	0.000	360.0	310.0	1000.00	36	31	14.9
4-Nitrophenol	0.000	400.0	380.0	1000.00	40	38	5.1
4-Chloro-3-metylphenol	0.000	500.0	500.0	1000.00	50	50	0.0
1,2,4-trichlorobenzene	0.000	400.0	400.0	1000.00	40	40	0.0
N-nitroso-di-n-propyl	0.000	420.0	400.0	1000.00	42	40	4.9
1,4-Dichlorobenzene	0.000	420.0	410.0	1000.00	42	41	2.4
2-Chlorophenol	0.000	430.0	440.0	1000.00	43	44	2.3
Phenol	0.000	360.0	330.0	1000.00	36	33	8.7

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

23323 ZAC35

McCAMBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (510) 798-1620 Fax: (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: JOHN MRAKOVICH Bill To: SAME

Company: ALLCAL ENVIRONMENTAL
27923 HIGH COUNTRY DRIVE
HAYWARD, CA 94542

Tele: (510) 581 2320 Fax: (510) 581 8490

Project #: 146 Project Name:

Project Location: 1347 PARK ST, ALAMEDA, CA

Sampler Signature: J. Mackenzie

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other
TRIP BLANK	—	11/29/00	900	2	40 ML	X					X			
√ MW-1	MW-1	"	1030	4	2-40 2-L	X					X	X		

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI
X														
X	X									X				

Other: TPH AS MOTOR OIL

Comments: 54630 54631

X

Relinquished By:	Date:	Time:	Received By:
J. Mackenzie	11/29/00	12:00	Bill Butts
B. Butts	11/29	1:50	S. Valle 11/29
Relinquished By:	Date:	Time:	Received By:

Remarks:

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ____

PRESERVATION APPROPRIATE CONTAINERS ✓

VOAS	O&G	METALS	OTHER