5715P3597

CAMBRIA

June 11, 1998

Mr. Tom Peacock
Alameda County Department of
Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

ENVIRONMENTAL PROTECTION
98 JUN 17 PM 3:07

Re: **Second Quarter 1998 Monitoring Report**
Hooshi's Auto Service
1499 MacArthur Blvd.
Oakland, California 94602

Dear Mr. Peacock:

On behalf of Ms. Naomi English, Cambria Environmental Technology, Inc. (Cambria) has prepared this report presenting the second quarter 1998 ground water monitoring results for the site referenced above. Presented below are the second quarter 1998 activities, the current ground water flow direction, the current hydrocarbon distribution in ground water, and the anticipated third quarter 1998 activities.

## SECOND QUARTER 1998 ACTIVITIES

***Quarterly Ground Water Sampling:*** On May 8, 1998 Cambria gauged and sampled all onsite and offsite ground water monitoring wells. The thickness of liquid-phase hydrocarbons (LPH), when detected, was measured. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tert-butyl ether (MTBE).

***Remediation System:*** Cambria submitted an application for an air permit from the Bay Area Air Quality Management District for construction and operation of a soil-vapor extraction (SVE) system at the site on February 23, 1998. Once a permit has been granted, Cambria will begin installation of the SVE system.

## GROUND WATER FLOW DIRECTION

Based on the May 8, 1998 depth-to-water measurements, ground water mounded in the vicinity of the former underground storage tanks (Figure 1). Apart from the mound, flow across the site appears to be predominantly toward the north. The previous consultant's report showed a similar pattern of flow based on measurements made on June 27, 1996. Table 1 summarizes the ground water elevation data.

CAMBRIA
ENVIRONMENTAL
TECHNOLOGY, INC.
1144 65TH STREET,
SUITE B
OAKLAND,
CA 94608
PH: (510) 420-0700
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## HYDROCARBON DISTRIBUTION IN GROUND WATER

Liquid phase hydrocarbons were detected in wells MW-2 and MW-5. TPHg concentrations of 3,200 ppb and 780 ppb were detected in wells MW-1 and MW-3, respectively. Benzene concentrations of 300 ppb, 3.7 ppb, and 0.60 ppb were detected in wells MW-1, MW-3, and MW-4, respectively. MTBE was not detected in any of the samples analyzed, however, detection limits for samples taken from MW-1 and MW-3 were 120 ppb and 32 ppb, respectively. Table 1 summarizes the ground water analytical results; the laboratory reports are included in Attachment A.

## ANTICIPATED THIRD QUARTER 1998 ACTIVITIES

***Quarterly Ground Water Sampling:*** As requested by the Alameda County Department of Environmental Health, Cambria will gauge and collect water samples from each ground water monitoring well, and measure the thickness of any detected LPH. Samples will be analyzed for TPHg, BTEX, and MTBE. Cambria will tabulate the data, contour ground water elevations, and prepare a quarterly monitoring report.

***Remediation System*:** Cambria plans to install and begin operating a SVE system at the site within the next two months, depending on permit approval. A SVE start-up report and updates will be presented in separate remediation reports.

## CLOSING

Cambria appreciates the opportunity to provide environmental services to Ms. Naomi English. Please call me at (510) 420-3316 if you have any questions or comments.

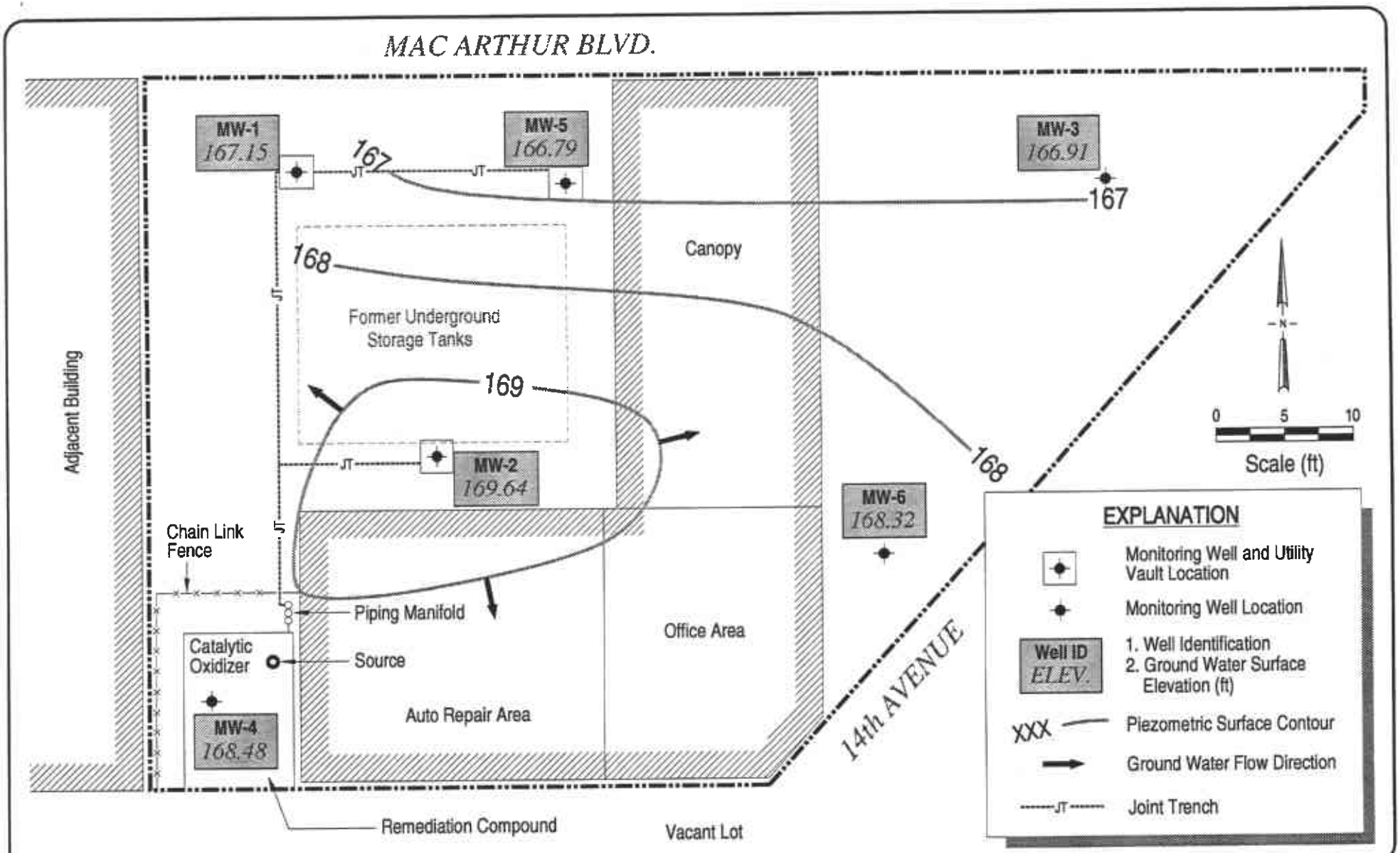
Sincerely,
**Cambria Environmental Technology, Inc.**

Owen Ratchye
Project Engineer


H:\SB-2004\Oakl - Hooshi's\QM\2Q98.wpd

Attachments: A - Analytical Results for Ground Water Sampling

cc: Ms. Naomi English, 1545 Scenic View Dr., San Leandro, CA 94577




NOTE: All points surveyed to an arbitrary datum.

CAMBRIA
Environmental Technology, Inc.

Hooshi's Auto Service
1499 MacAurthur Boulevard
Oakland, California

I:\SB-2004\OAK-HOOSHI\FIGURES\2QM98-MP.DWG

Ground Water Elevation
Countours
May 8, 1998

FIGURE
1

05/28/98

## Table 1. Ground Water Elevations and Analytical Data

Hooshi's Auto Service, 1499 MacArthur Boulevard
Oakland, California

| Well ID<br>*TOC*<br>*(ft*)* | Date | Depth to Ground Water (ft) | Ground Water Elevation (ft*) | Separate Phase Hydrocarbons (ft) | TPHg | Benzene | Toluene | Ethylbenzene | Xylenes | MTBE | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | ← (µg/L) → | | | | | | |
| MW-1 | 6/27/96 | 14.11 | 166.89 | – | 3,300 | 260 | 34 | 59 | 170 | 80 | |
| *181.00* | **5/8/98** | **13.85** | **167.15** | -- | **3,200** | **300** | **12** | **62** | **36** | **<120** | a |
| MW-2 | 6/27/96 | 12.61 | 167.84 | 1.00 | – | -- | -- | -- | -- | -- | |
| *180.45* | **5/8/98** | **10.81** | **169.64** | **0.03** | -- | -- | -- | -- | -- | -- | |
| MW-3 | 6/27/96 | 13.20 | 166.74 | – | 2 | 22 | 2.9 | 11 | 7.4 | 56 | |
| *179.94* | **5/8/98** | **13.03** | **166.91** | -- | **780** | **3.7** | **2.1** | **1.1** | **2.4** | **<32** | a |
| MW-4 | 6/27/96 | 17.03 | 163.51 | -- | 720 | 2 | 0.5 | 2.5 | 23 | 3.2 | |
| *180.54* | **5/8/98** | **11.46** | **168.48** | -- | **<50** | **0.60** | **<0.5** | **<0.5** | **<0.5** | **<5.0** | |
| MW-5 | 6/27/96 | 13.62 | 166.61 | 0.16 | -- | -- | -- | -- | -- | -- | |
| *180.23* | **5/8/98** | **13.15** | **166.79** | **0.04** | – | -- | -- | -- | -- | -- | |
| MW-6 | 6/27/96 | 18.55 | 161.48 | -- | ND | ND | ND | ND | ND | -- | |
| *180.03* | **5/8/98** | **11.62** | **168.32** | -- | **<50** | **<0.5** | **<0.5** | **<0.5** | **<0.5** | **<5.0** | |
| Trip Blank | **5/8/98** | -- | -- | -- | **<50** | **<0.5** | **<0.5** | **<0.5** | **<0.5** | **<5.0** | |
| MCLs | -- | -- | -- | -- | NE | 1 | 150 | 700 | 1,750 | NE | |

Abbreviations and Methods:

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020
MTBE = Methyl tert-butyl ether by EPA Method 8020
DO = Dissolved oxygen
µg/L = Micrograms per liter
mg/L = Milligrams per liter
TOC = Top of casing elevation

Abbreviations and Methods (Cont'd):

* = elevations surveyed to an arbitrary datum
MCLs = California primary maximum contaminant levels for drinking water (22 CCR 64444)
NE = MCLs not established
ND = Compound not detected, detection limit unknown

Notes:

a - The analytical laboratory noted that unmodified or weakly modified gasoline is significant.
b - The analytical laboratory noted that lighter than water immiscible sheen is present.

# ATTACHMENT A

Analytical Results for Ground Water Sampling

McCAMPBELL ANALYTICAL INC.

110 Second Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

| | | |
|---|---|---|
| Cambria Environmental Technology<br>1144 65th Street, Suite C<br>Oakland, CA 94608 | Client Project ID: #129-0741-007; Hooshi's | Date Sampled: 05/08/98 |
| | | Date Received: 05/11/98 |
| | Client Contact: Owen Ratchye | Date Extracted: 05/11/98 |
| | Client P.O: | Date Analyzed: 05/11/98 |

05/19/98

Dear Owen:

Enclosed are:

1). the results of **4** samples from your **#129-0741-007; Hooshi's** 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

McCAMPBELL ANALYTICAL INC.
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| | | |
|---|---|---|
| Cambria Environmental Technology<br>1144 65th Street, Suite C<br>Oakland, CA 94608 | Client Project ID: #129-0741-007; Hooshi's | Date Sampled: 05/08/98 |
| | | Date Received: 05/11/98 |
| | Client Contact: Owen Ratchye | Date Extracted: 05/15-05/18/98 |
| | Client P.O: | Date Analyzed: 05/15-05/18/98 |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| 89046 | MW-1 | W | 3200,a | ND<120 | 300 | 12 | 62 | 36 | 105 |
| 89047 | MW-3 | W | 780,a | ND<32 | 3.7 | 2.1 | 1.1 | 2.4 | 96 |
| 89048 | MW-4 | W | ND | ND | 0.60 | ND | ND | ND | 103 |
| 89049 | MW-6 | W | ND | ND | ND | ND | ND | ND | 105 |
| | | | | | | | | | |
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| | | | | | | | | | |
| 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

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

# QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/15/98 Matrix: WATER

| Analyte | Concentration (mg/L) Sample (#88980) | MS | MSD | Amount Spiked | % Recovery MS | MSD | RPD |
|---|---|---|---|---|---|---|---|
| TPH (gas) | 0.0 | 96.4 | 98.2 | 100.0 | 96.4 | 98.2 | 1.8 |
| Benzene | 0.0 | 10.2 | 10.1 | 10.0 | 102.0 | 101.0 | 1.0 |
| Toluene | 0.0 | 10.3 | 10.2 | 10.0 | 103.0 | 102.0 | 1.0 |
| Ethyl Benzene | 0.0 | 10.6 | 10.3 | 10.0 | 106.0 | 103.0 | 2.9 |
| Xylenes | 0.0 | 32.0 | 31.4 | 30.0 | 106.7 | 104.7 | 1.9 |
| TPH(diesel) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TRPH (oil & grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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# QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/18/98 Matrix: WATER

| Analyte | Concentration (mg/L) Sample (#89049) | MS | MSD | Amount Spiked | % Recovery MS | MSD | RPD |
|---|---|---|---|---|---|---|---|
| TPH (gas) | 0.0 | 94.1 | 98.4 | 100.0 | 94.1 | 98.4 | 4.5 |
| Benzene | 0.0 | 9.9 | 10.5 | 10.0 | 99.0 | 105.0 | 5.9 |
| Toluene | 0.0 | 10.0 | 10.7 | 10.0 | 100.0 | 107.0 | 6.8 |
| Ethyl Benzene | 0.0 | 10.2 | 10.8 | 10.0 | 102.0 | 108.0 | 5.7 |
| Xylenes | 0.0 | 31.0 | 32.7 | 30.0 | 103.3 | 109.0 | 5.3 |
| TPH(diesel) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| TRPH (oil & grease) | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

# CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC.

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11168

## CHAIN OF CUSTODY



XC273

Cambria Manager: OWEN RATCHYE
Cambria Sampler: ANNI KREML
Client: HOOSHI'S
Site Address: 1499 MAC ARTHUR BLVD., OAKLAND
Project Number: 129-0741-007

LAB: McCampbell

| SAMPLE ID | DATE | TIME | MATRIX | # OF SAMPLES | ANALYSES: TPH9 / BTEX / MTBE EPA METHOD 8015/8020 | NOTE: CONFIRM HIGHEST MTBE RESULT BY EPA METHOD 8260 |
|---|---|---|---|---|---|---|
| MW-1 | 5/8/98 | | WATER | 4 | X | 89046 |
| ~~MW-2~~ | | | | | | |
| MW-3 | | | | | | 89047 |
| MW-4 | | | | | | 89048 |
| ~~MW-5~~ | | | | | | |
| MW-6 | | | | | | 89049 |

ICE ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE CONTAINERS ✓

VOAs ✓ O&G | METALS | OTHER

| Relinquished by: | Relinquished by: | Relinquished by: | Relinquished by: |
|---|---|---|---|
| Received by: | Received by: | Received by: | Received by: |
| Time/Date: 12:12 5/11/98 | Time/Date: 5/11/98 | Time/Date: | Time/Date: |

Note to lab: Please dispose of extra unlabeled VOAs