# COPY

**GROUND-WATER SAMPLING** 

ΑT

750 HIGH STREET

OAKLAND, CALIFORNIA

Prepared For:

MR. JOHN BACON

September 8, 1993



COPY

September 8, 1993

Ms. Madhulia Logan Alameda County Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Subject:

Ground-Water Sampling, 750 High Street, Oakland, California (CERTIFIED/Earth Metrics file reference

S30257/11968B)

Dear Ms. Logan:

On behalf of the owner of the above-referenced site, Mr. John Bacon, enclosed is CERTIFIED/Earth Metrics report of Ground-Water Sampling for Polychlorinated Biphenyls (PCBs) for 750 High Street (formerly, 744 and 752 High Street), Oakland. Work was in accordance with the Work Plan submitted August 18, 1993. Standard operating procedures are provided herein as Appendix A.

Certified Engineering & Testing\* Company

CERTIFIED/Earth Metrics completed its field work on the subject site on August 19, 1993. Laboratory analyses by U.S. EPA Method 608/8080 for PCBs in six monitoring wells determined no detectable amounts of PCBs present. The laboratory analytical report, Sample Chain-of-Custody, and Well Sampling Logs are included as Appendix B.

Environmental Consultants & Laboratory Services

Having determined no PCBs to be present, CERTIFIED/Earth Metrics recommends case closure at this time and requests same on behalf of the owner. Please call if you have any questions about the report.

7000 Marina Boulevard 4th Floor Brisbane, CA 94005 (415) 742-9900 Fax (415) 742-1033

Sincerely,

Boston Providence New York Memphis Dallas San Francisco Los Angeles Marc R. Papineau Project Manager

Michael McDonald, P.E.

Project Engineer

cc. Mr. Richard Hiett, California RWQCB

### **GROUND-WATER SAMPLING**

AT

750 HIGH STREET

OAKLAND, CALIFORNIA

Prepared For:

MR. JOHN BACON

September 8, 1993

Prepared By:

CERTIFIED/EARTH METRICS 7000 Marina Boulevard, 4th Floor Brisbane, CA 94005 (415) 742-9900

# 1. INTRODUCTION, PURPOSE, AND SCOPE OF WORK

The subject site, 750 High Street (formerly 744 and 752 High Street) in Oakland is presently occupied by a warehouse building, a parking lot with stacked wood and customer parking areas.

The purpose of this ground-water sampling and analysis event was to determine the presence or absence of Polychlorinated Biphenyls (PCBs) in ground water on site. Based upon the Work Plan submitted August 16, 1993 and agreement with Alameda County, the laboratory analysis results are to be used in consideration of the appropriateness of case closure. Upon determination of no detectable amounts of Polychlorinated Biphenyls (PCBs) in ground water, monitoring wells are to be considered for closure by grouting them to the surface and the open case is to be recommended by Alameda County to RWQCB for closure.

# 2. LOCATION AND SITE DESCRIPTION

The subject site is located at 750 High Street, Oakland, California, and is presently occupied by a warehouse building, and asphalt-paved, wood and construction materials storage areas.

The subject property is immediately adjacent to the Southern Pacific railroad tracks to the east, a building supply business to the west, and High Street to the north.

# 3. BACKGROUND

The subject site was previously used as a metal salvage yard. Surface soil contamination with PCBs was discovered and remediated by Southern Pacific Transportation Company (SPTC) in June 1990. Monitoring wells were installed and first sampled in May 1989. Soil was scraped and transported off site in June 1990. The site was paved in 1991.

Prior to being covered with pavement, the six on-site monitoring wells were sampled and tested on at least five (5) previous monitoring events, May 1989, July 1989, December 1989, June 1990, and September 1990 and four of the six wells were then found to contain no detectable amounts of PCBs. Monitoring well C-2 was found to contain 0.61 to 1.0 ppb in May and July 1989; however, subsequently in December 1989, June 1990, and September 1990, well C-2 was found to contain no detectable PCBs. Well C-6 was found to contain no detectable PCBs in four events and then 0.59 ppb in September 1990 (See Table 1, Summary of Analytical Ground-Water Data). The detection limit was reported by the laboratory of previous test events (ENSECO) to be 0.50 ppb for Arochlor 1260.

# 4. GROUND-WATER SAMPLING

A representitive of CERTIFIED/Earth Metrics arrived on site the morning of Thursday, August 19, 1993. After adequately addressing Site safety concerns, depth-to-water level to top of casing was measured in each well using an electronic probe. The following are depth-to-water measurements taken by CERTIFIED/Earth Metrics from on-site monitoring wells on August 19, 1993:

MW Number	Depth-to-Water (feet below top of casing*)
A-1	7.47
B-2	6.79
A-5	8.45
C-2	10.77
C-6	9.62
C-5	11.52

\* Note:

Casing heights relative to grade surface were variable owing to upper casing damage. Wells which had been inadvertently covered with pavement overlay were located by survey and uncovered. Lost upper casing was as much as 12 inches.

Purging and sampling wells was performed in accordance with CERTIFIED/Earth Metrics standard procedure outlined in Appendix A. Wells were purged of at least three well volumes and temperature, pH, and conductivity measurements were taken after each well volume. All purge water was collected in one 55-gallon drum on site. The 55-gallon drum was labeled and stored temporarily on site for appropriate safe disposal. Recharge of ground water in monitoring wells on site was slow and approximately 20 minutes was allowed prior to purging each well volume.

Ground-water sampling was accomplished from each well by filling two (2) one-liter amber bottles using new dedicated disposable polyethylene bailers. Sample pH was monitored to be 7.1 to 7.3 (near neutral). All downhole equipment was washed with trisodium phosphate (TSP) and distilled water, before use in each well. The well sampling order was A-1, B-2, A-5, C-2, C-5, and C-6, in order of increasing historic levels of PCBs. All ground-water samples were cooled with ice in a cooler and transported to an California-certified laboratory for analysis. A Chain-of-Custody form accompanied ground-water samples to the laboratory.

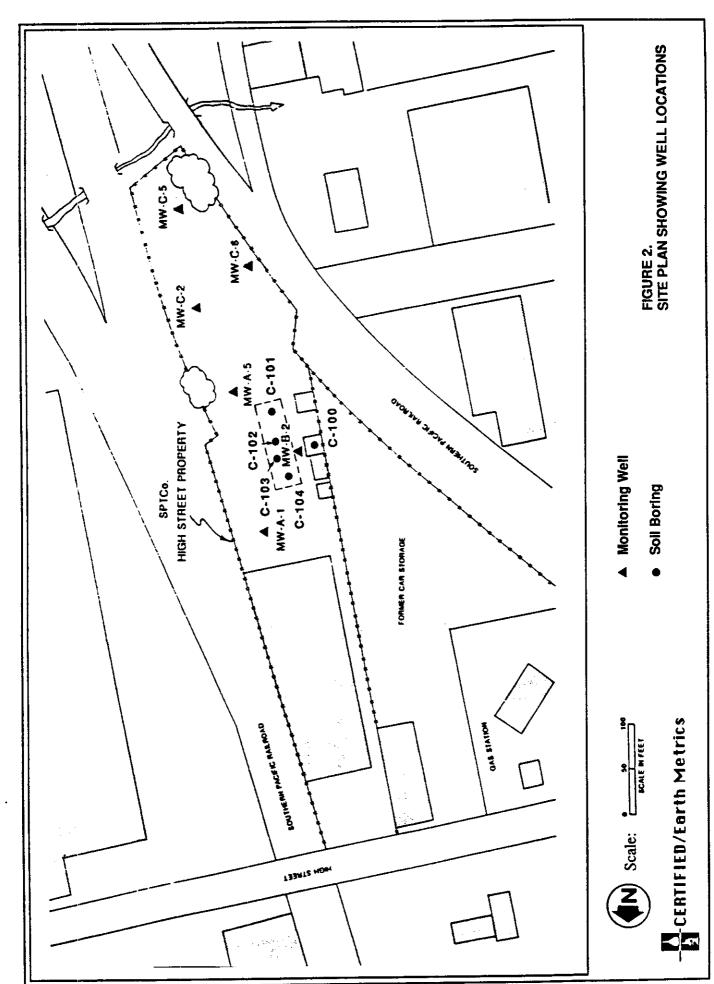
Before sampling, minimum of three well volumes was purged from each well or until ground-water turbidity, temperature, pH, and electrical conductivity remained relatively constant (within 10%). Care to minimize silt in ground-water samples was taken during sampling. A polyvinyl chloride (PVC) bailer was used to purge, and a disposable dedicated polyethylene bailer was used to sample each well. The PVC bailer was washed thoroughly with TSP and water and triple-rinsed prior to use in each well.

Proper sample containers, sampling techniques, labeling, preservation, and Chain of Custocly was used, according to CERTIFIED/Earth Metrics protocol, to reduce the chance of an error in sampling. Sequoia Analytical Laboratory, Redwood City, a California DHS-certified laboratory, performed all analytical testing.

Site safety measures and equipment were used to minimize potential for injury during monitoring well sampling. Safety cones were set near each monitoring well location prior to sampling, to designate the work zone. Because the site is currently used as a lumber yard, the safety cones were also used to direct traffic around field personnel. Safety goggles, steel-toed boots, and gloves were used to protect workers.

#### GROUND-WATER ANALYSIS

Ground-water samples were analyzed for Polychlorinated Biphenyls (PCBs) (U.S. EPA method 608/8080). Results are summarized below in Table 1. Previous results are summarized in Table 2 for previous monitoring events from May 1989 to April 1992.



Page 5

# TABLE 1 AUGUST 1993 ANALYTICAL GROUND-WATER DATA 750 HIGH STREET OAKLAND, CALIFORNIA (August 19, 1993)

Monitoring Well Number	Date	Polychlorinated Biphenyls (PCBs) (ppb)
A-1	8/19/93	ND
B-2	8/19/93	ND
A-5	8/19/93	ND
C-2	8/19/93	ND
C-5	8/19/93	ND
C-6	8/19/93	ND

Results are expressed in parts per billion (ppb)
Polychlorinated Biphenyls (PCBs) by EPA method 608/8080

SOURCE: Sequoia Analytical, 1993

TABLE 2. ANALYTICAL RESULTS OF INVESTIGATION FROM WELLS AT 744 HIGH STREET, OAKLAND, CALIFORNIA (ppb)

SAMPLE ID DATE	PCBs IN WATER ppb	NOTES
A-1	ND	ND manns not
5-26-89 7-28-89	ND NT	ND means not
7-20-09 12-4-89*	ND ND	detected
6-25-90	ND ND	NT means not
9-6-90	ND ND	tested
3-0-30	ND	lested
A-5		
5-26-89	ND	
7-28-89	ND	
12-4-89*	ND	
6-25-90	ND	
9-6-90	ND	
B-2		
5-26-89	ND	
7-28-89	ND	
12-4-89*	ND	
6-25-90	ND	
9-6-90	ND	
C-2		
5-26-89	1.0	
7-28-89	0.61	
12-4-89*	ND	
6-25-90	ND	
9-6-90	ND	

(CONTINUED)

TABLE 2 (CONTINUED). ANALYTICAL RESULTS OF INVESTIGATION FROM WELLS AT 744 HIGH STREET, OAKLAND, CALIFORNIA

SAMPLE ID DATE	PCBs IN WATER (ppb)	NOTES
C-5 5-26-89 7-28-89 12-4-89* 6-25-90 9-6-90 4-8-92 C-6 5-26-89 7-28-89 12-4-89*	ND ND ND ND ND ND	*12-4-89 was
6-25-90 9-6-90	ND 0.59	reported by Ecology and Environment as 12-4-90
ppb = parts per bil	lion	12-4-30
Enseco,	& Environment 1990 ED/Earth Metrics, 1992	

# APPENDIX A <u>CERTIFIED/Earth Metrics Field Investigation Procedures</u>

#### **GROUND-WATER SAMPLE COLLECTION PROCEDURE**

Prior to sampling, the depth-to water was measured to within one-hundredth of a foot to top of casing in each monitoring well location using an electronic probe. Casing damage was noted. Each monitoring well was purged of at least three well volumes or until temperature, pH, and conductivity remained relatively constant (within 10%). Any floating product, sheen, turbidity or unusual odor was recorded if present; none was observed. A reusable PVC bailer used for purging, prior to sampling, was cleaned with trisodium phosphate (TSP) and triple rinsed with distilled water prior to bailing. A separate bailer was used in each well for sampling.

Ground-water was allowed to recharge and settle for 20 minutes before a dedicated disposable polyethylene bailer was placed carefully below water surface to collect a ground-water sample, to minimize the amount of sediment in the ground-water sample. A ground-water sample was then carefully poured into an appropriate container, labeled and placed in iced storage, for transport to a State of California certified laboratory for the required testing for Polychlorinated Biphenyls (PCBs) (EPA method 608/8080). A Chain of Custody record for all samples was initiated by the field technician and is included in Appendix B.

All sampling data, direct measurements, a map of the site, location of drums, any noticeable odor, sheen and other visual observations made at the time of sampling were recorded on Well Sampling Logs by the CERTIFIED/Earth Metrics technician. Well purge water was stored temporarily on site in a labeled 55-gallon drum pending test results.

# APPENDIX B <u>Laboratory Ground-Water Test Reports, Chain-of-Custody, and Well Sampling Logs</u>

Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland

Water, A-1-893 EPA 8080 3HA7101 Sampled: Aug 19, 1993
Received: Aug 20, 1993
Extracted: Aug 26, 1993
Analyzed: Aug 30, 1993
Reported: Sep 1, 1993

# **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit $\mu$ g/L		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221	2.0	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	N.D.
PCB 1232	0.50	444444444444	N.D.
PCB 1242	0.50	**********	N.D.
PCB 1248			N.D.
PCB 1254.		******************************	N.D.
PCB 1260		***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Nokowhat D. Herrera Project Manager

3HA7101.EAR <1>



Client Project ID: PO #13325, 530257 - Oakland Sample Descript: Water, B-2

Analysis Method: EPA 8080 Lab Number: 3HA7102 Sampled: Aug 19, 1993
Received: Aug 20, 1993
Extracted: Aug 26, 1993
Analyzed: Aug 30, 1993
Reported: Sep 1, 1993

# **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	N.D.
PCB 1232		,,	N.D.
PCB 1242			N.D.
PCB 1248			N.D.
PCB 1254			N.D.
PCB 1260		***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland

Water, A-5

EPA 8080 3HA7103

Sampled: Aug 19, 1993

Received: Aug 20, 1993 Extracted: Aug 30, 1993 Analyzed: Aug 31, 1993

Reported: Sep 1, 1993

# **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/l_		Sample Results µg/L
PCB 1016	0.50	1	N.D.
PCB 1221	2.0	100200044440000000000000000000000000000	N.D.
PCB 1232	0.50	*****************************	N.D.
PCB 1242	0.50	******************************	N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50		N.D.
PCB 1260	0.50		N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland

Water, C2 EPA 8080 3HA7104 Sampled: Aug 19, 1993 Received: Aug 20, 1993 Extracted: Aug 30, 1993 Analyzed: Aug 31, 1993

Reported: Sep 1, 1993

# **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/l_		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221	2.0		N.D.
PCB 1232	0.50		N.D.
PCB 1242	0.50		N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50	•••••	N.D.
PCB 1260	0.50		N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 



Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland

Water, C-5 EPA 8080

3HA7105

Sampled: Aug 19, 1993

Received: Aug 20, 1993 Extracted: Aug 30, 1993 Analyzed: Aug 31, 1993

Reported: Sep 1, 1993

# **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221	2.0	4	N.D.
PCB 1232	0.50	4	N.D.
PCB 1242	0.50	• : • • • • • • • • • • • • • • • • • •	N.D.
PCB 1248			N.D.
PCB 1254	0.50		N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 



Client Project ID: PO #13325, 530257 - Oakland Sample Descript: Water, C-6 Analysis Method: EPA 8080

Analysis Method: EPA 8080 Lab Number: 3HA7106 Sampled: Aug 19, 1993
Received: Aug 20, 1993
Extracted: Aug 30, 1993
Analyzed: Aug 31, 1993
Reported: Sep 1, 1993

# **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L.		Sample Results µg/L
PCB 1016	0.50	••••••	N.D.
PCB 1221	2.0	,	N.D.
PCB 1232	0.50		N.D.
PCB 1242	0.50	***************************************	N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50	***************************************	N.D.
PCB 1260	0.50	*************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Nokowhat D. Herrera Project Manager

3HA7101.EAR <6>



Certified Earth Metrics 7000 Marina Blvd.

Matrix:

PO #13325, 530257 - Oakland

Client Project ID:

Water

Brisbane, CA 94005 Attention: Mario Sternad

QC Sample Group: 3HA7101-06

Reported: Sep 1, 1993

#### **QUALITY CONTROL DATA REPORT**

ANALYTE

PCB 1248

Method:

EPA 8080

Analyst:

L. Laikhtman

Conc. Spiked:

500

Units:

 $\mu$ g/L

LCS Batch#:

BLK082693

**Date Prepared:** 

8/26/93

Date Analyzed:

8/26/93

Instrument I.D.#:

GCHP-10

LCS %

Recovery:

64

**Control Limits:** 

50-150

MS/MSD

Batch #:

PBLK082693

Date Prepared:

8/26/93

Date Analyzed:

8/26/93 GCHP-10

instrument i.D.#:

Matrix Spike

% Recovery:

64

Matrix Spike

Duplicate %

Recovery:

64

Relative %

Difference:

0.0

**SEQUOIA ANALYTICAL** 

Nokowhat D. Herrera Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

3HA7101.EAR <7>

# CHAIN OF CUSTODY RECORD

	CERTIFIEI		ع	rtified	Engin	g prince	Z. Toefin	و و		SAMPLE SERIES #:		
Environme	Environmental Consultants & Laboratory Services	oratory Service		25 Mathewson Drive (617) 337-7887	ewson 7,337-7	Drive • 1	25 Mathewson Drive • Weymouth, MA 02189 (617) 337-7807 • Fax (617) 337-8237	, MA 02 37-8237	189	10	8 30	0-
0	COMPANY: CERT	CERTIFIED						SAMP	SAMPLE TYPE			
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	BRIG	BRISBANE	3	6	9400x	\			DGE	100		
	PHONE #: (415) 7	242-9900		(214): #XY		1-2+6	-1033	4. 0				\ \ \
		13325						CONT	CONTAINER TYPE		\ \ \	
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CERTIFIED	CLIENT	SAMPIE		CONTAINER	Œ	SAM	SAMPLING	PRESERVATIVES	ATIVES (C) ATIVES		\ \ \	
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	A-5						12:15		X			
	C-2	-					1:10		X			
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Shade areas	Shade areas for laboratory use only			-	þ							

Shade areas for laboratory use only Retain Pink copy and submit White and Yellow copies to the Laboratory

ACCUFORMS, INC., BRAINTREE, MA (617) 356-2626

Location No. <u>C-6</u>		Date: 8/19	193 Time:	9:55 AM.
Sample No. C-6		Weather:		DEPTH TO WATER
	PA MINESPER	Conditions	FAIR	permi to server
Project/Client: JOHA		Air Temperatur		
Location: 750 HIGH	SI. CARLAND, CA		MARIO STE	FNAD
Job No. 530257			IAIS S LE	
WELL INFORMATION	I man to a	<b>~</b>		
Casing, Dia.: 2-1Mort ( ) Stainless Steel	intake, Diameter:	Volum	ne of 2" and 4" Ca	sing in Gallons
( ) Steel	( ) Stainless Steel	×		
(Y EVC	( ) Steel	•• 🕽		لمر
() Tellon	() PVC	•• ↓		
() Other	( ) Tellon	Gals 35		
Water Level: 9.62	( ) Other			
Total Depth: 22-42	Well Conditions:	30	& Wall Campa	
Measuring Device	Well Clean to Bottom	₹5 -		
()M-Scope	() yes. () no	20		
( ) Other	Well in Good Condition	18 4		
Volume of Water in	() yes. (Yno HEAD	BROKEN 10]		To Wat Count
Casing Z.I GAL	Surface Protection:	م [و		
Datum:	Clean ( ) yes. ( ) no Condition ABSENT			
( ) Top of Sud. Casing	Condition	و و	0 70 20	40 10 80 73
( ) Top of Well Casing ( ) Other	Lock ( ) yes, 1/10	,	Amount of Water in We	**
( ) 5016/	2004   / / / / / / /			
Purging Data:				
Method:	Tubing/rope	Purgi	ng Equipment	
( ) Bladder Pump	( ) Tellon		Dedicated	
( ) Bailer	( ) Bolypropylene		repared Cff-Site	NOON 35 PM.
( ) Submersible Pump	Mylon	(S)	Frepared Off-Site Field Cleaned of Series Data	
( ) Peristaltic Pumo	( ) Other		Series Sere Ali	_% _3 4/
( ) Other	Pumping Rate		Series Data 🞶 🥠	ν ·γ
Materials:	Volume Pumped		surement 1 2 Volumes I 2	3 + 4
Pump/Bailer ( ) Tallon	Well Evacuated ( ) yes.		or Temp. 72.0 6	6.9 66.8
( ) S≀ainless Steel	Number of Well Volume	Ho ze	7.00 7	24 7.2A
WP/C	Purged 3+	Othe	1 E-C 1670 I	ुड्य विद्य
( ) Other	. 4. 300			<del></del>
			<del></del>	
Sampling Data:				
Method:	( ) Tellon		Physical & Che	emical Data:
( ) Bladder Pump	( ) Polypropylen	1 <b>e</b>	Appearance:	•
( Bailer	( Y Nylon ( ) Other		( ) Clear	
( ) Submersible Pump ( ) Peristaltic Pump	Sampling Equip	meni	MTurbid	
( ) Other	(V) Dedicated		( ) Color	<del></del>
Materials: Pump/Bailer	( ) Prepared Off	-Site	( ) Immiscible i	TOOUCI
() Tellon	( ) Field Cleane	đ	( ) Other	ol Samola
( ) Stainless Steel	Metals Sample F	ield Filtered N/A	Temp	A. Asurbia
() PYC	Λ () Yes	P//\	ρΗ	
Momer Polyethy	lene () No		Other 2:40	8/19/93
Materials: Tubing/rope	· Method			
11/2				
Certification: War	nd handled in accordance	with etapped	datory and corners	e procedures
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Location No. C-5		Date: 8/19/93 Time: 9:55 A.M.
Sample No. C-5		Weather: DEPTH TO WATER
Project/Client: Jorth 84	MAISTER	Conditions FAIR
La retirate 75 H/C d Com	SEEF AMOUNT OF	
Location: 750 HIGH ST	CE   OARRINGS	Personnel MARIO STERNAD
Job No. \$30257		
عد ومساورة والمساورة والمساورة والمساورة والمساورة والمساورة والمساورة والمساورة والمساورة والمساورة		
WELL INFORMATION		
	Intake,	,
	Diameter:	Volume of 2" and 4" Casing in Gallons
( ) Steel	( ) Stainless Steel	×4
MPVC	( ) Steel	**
( ) Tetlon	() PVC	40 1
()Other	( ) Tellon	Gais. 35
Water Level: 11,52 FECT	( ) Other	30
	Well Conditions:	at Wal Count
Measuring Device	Well Clean to Bottom	"
() IA-Scope	() yes. () no	20
1-Yomer Elec Depth	Well in Good Condition	10 1
Volume of Water in	(Vyes, ( ) no Surface Protection:	16 Two Come
~~~~	Clean (V) yes. ( ) no	3!
Datum: ( ) Top of Surf. Casing	Condition	9
( ) Top of Well Casing		0 10 20 20 40 20 80
( ) Other	Lock ( ) yes, ( Ino	Amount of Water in West (Free)
Purging Data:		
Method:	Tubing/rope	Purging Equipment
( ) Bladder Pump	() Tellon	( ) Dedicated
(A) Builer	( ) Polypropylene	( ) Prepared Off-Site
( ) Submersible Pump	( Nylon	(YField Cleaned
( ) Peristaltic Pump	( ) Other Pumping Rate	Time Series Data
() Other	Elapsed Time AO M	
Materials: " Purnp/Bailer	Volume Pumped 4,5	
() Tellon	Well Evacuated ( ) yes.	
( ) Stainless Steel	Number of Well Volumes	· · · · · · · · · · · · · · · · · · ·
MPVC	Purged 3	Other Elec. 1270 1220 1220
() Other		Conclustivity
		<i>s</i>
Sampling Data:	( ) Telion	Dhusiani & Chamiani fictor
Method:	( ) Polypropylene	Physical & Chemical Data:
( ) Bladder Pump (-> Builer	( ) Nylon	Chhranance.
( ) Submersible Pump	( ) Other	( ) Clear
( ) Peristaltic Pump	Sampling Equipm	Ment (1 Color
() Other	(Y) Dedicated	( ) Color( ) Immiscible Product
Materials: Pump/Baile)	( ) Prepared Off-S	Site () Other
() Tellon	( ) Field Cleaned	Filed Condition of Sample
( ) Stainless Steel	Metals Sample Fie	eld Filtered N/A Temp
()PVC	() Yes	Λ <i>H</i>
140 mer Polyelhylene	_ () No	Other 2300 P.M. 8/19/93
Materials: Tubing/rope	· Method	
	La constant	
Centification: Maris &	famel	

This slimple was collected and handled in accordance with standard regulatory and corporate procedures

Location No. C-2		Date:	811919	13	Time:_	1:50	A.M
Sample No. C-Z		Weathe		<del></del>	_		-TO-WATE
•	24.0 110 000	Conditio		FAIR	ı	erin-	-10-W4/E
Project/Client: 30HW 1			perature			<del></del>	
Location: 750 HIGH	STREET CARLAND	Personi	•	ARIO	STERV	100	· · · · · · · · · · · · · · · · · · ·
Job No. 530257		1 0,50111		17100	SIEVA	حر ٦٠	
WELL INFORMATION							
WELL INFORMATION Casing, Dia.:	Intake.						
( ) Stainless Steel	Diameter:		Volume	of 2" ar	nd 4" Cas	oi oni:	Gailons
() Steel	( ) Stainless Steel	<b>50</b> ,					
() PVC	( ) Steel	• 5	1				
() Tellon	() PVC	•0	j				
() Other	() Tellon	Gals 35	1				
Water Level: 10.77 FEET	( ) Other	33 .	i			_	_
Total Depth: 22.93FEE	rWell Conditions:	3 <del>0</del> ,	-				
Measuring Device	Well Clean to Bottom	<b>21</b> ,	1		رومه ده ۲۰۰۰ د ۲۰۰۰ م		
() M-Scope	( ) yes. ( ) no	20 .	}				
(Yoiner Elec. Depth	Well in Good Condition		1	_			
Volume of Water in	( ) yes. ( ) no	18 -	i				
Casing 2 GALLONS	Surface Protection:	10				* W-4 C	
Datum:	Clean ( ) yes. ( ) no	<b>3</b> .					
( ) Top of Surf. Casing	Condition	٠,					
(YTop of Well Casing		t	0 10	20	30 40	10	80
( ) Other	Lock ( ) yes, ( ) no			Amount o	R MUS IV MOS (	Fuel	
Purgino Data:			<u> </u>				
Method:	Tubing/rope			Equipm	ent		
( ) Bladder Pump	() Tellon			dicated			
( Builer	( ) Polypropylene	•		pered Cf		,	
( ) Submersible Pump	(Y Nylon		(J) Fie	ld Cleane	ام حود	5 6	9
( ) Peristaltic Pump	( ) Other		<b>—</b>		4 1	· 47	,
() Other	Pumping Rate	- <del></del>		ries Data	1 2	7,	_
Materials:	Elapsed Time 40 M Volume Pumped 75	CALL OLLS		rement	25 2.5	3	4
Pump/Bailer	Well Evacuated ( ) yes.						
( ) Taflon	Number of Well Volumes			remp. <u>u</u>	5.4 69	50 640	<u> </u>
( ) Stainless Steel (V)P/C	Purged 3.75	•	pH Other		.09 7.0 100 119	50 113	
( ) Other	Purgeu	<del></del>	Oliver .	<u> </u>	100 II.	50 II	<u></u>
( ) Onler							-
Sampling Data:						,	
Method:	( ) Tellon		ŗ	hvsica	& Cher	nical f	)ata:
( ) Bladder Pump	( ) Polypropylene	!	-	Appeara			<del>, _ , _ , _ , _ , _ , _ , _ , _ , _ , _</del>
(YBailer	(J) Nylon			() Cle			·
( ) Submersible Pump	( ) Other			(Y Tur	e: hid		
( ) Peristaltic Pump	Sampling Equipm	ent		() Col			
()Other	(~) Dedicated				iscible Pro	duct	
Materials: Pump/Bailer	( ) Prepared Off-S			( ) Oin		· + • • •	
() Tallon	f ) Field Cleaned				ndition of	Samol	ŧ
( ) Stainless Steel	Metals Sample Fie	eld Filtered	NA	Temp	- ···		_
()PVC	( ) res		+ <i>p</i> : 1	ρΗ			
(YO'ner Pohjethylen	<u>e</u> () No			Other	1:10 PI	प्र ४।	19193
Materials: Tubing/rope	· · · Method						
Centication: Wans 84							
Certification: 10 mo 84	unn						

This sample was collected and handled in accordance with standard regulatory and corporate procedures

# Environmental Consultants

# Groundwater Monitor Well Sampling & Field Data Sheet

ocation No. A-5	Date: 🕱	10147 T	me: 9:35 A.M.
Campio No. A -	Weather	· · // / -3	EPTH-TO-WATER
Sample No. <u>A-5</u>	<del></del>	•	zr m. lowanele
Project/Client: JOHN BANNIST			
ocation: 750 HIGH STREET OF	rku <del>nd</del> vist. Un		
Job No. \$30257	Personn	el MARIO S	TERNAD
WELL INFORMATION			
Casing, Dia.: 2 INCH Intake,	,	foliume of 2* and	4" Casing in Gallons
( ) Stainless Steel Diameter:	ess Steel	0.0	- 000 mg in Ballotis
() Steel () Stains () Steel	43 31867		
() Tellon () PVC			
() Other () Tello			
Water Level: 9, 45 FEET () Other			
Total Depth: 24.69 FT Well Cond			
	n to Bottom	e w.	d Camp
() M-Scope () yes. (			
	and Condition		
Volume of Water in () yes, (	) no		
Casing 2.5 GAL Surface P			7 Wat Came
	yes, ( ) no 3		
( ) Top of Surf. Casing Condition	<u>ا</u> ه	/	
( Top of Well Casing		10 20 20	40 50 60
() Other Lock ()	yes, ( ) no	Amount of Wi	nor in West (Feet)
Purging Data:		Description Providence	
Method: Tubing/		Purging Equipment	
() Bladder Pump () Tell		( ) Dedicated	t a
	propylene	( ) Prepared Off-Si ( ) Field Cleaned	. N N
		(>) FIEID CIEBITED	مهمن وي <sup>۱۹</sup> ي
( ) Peristaltic Pump ( ) Oth ( ) Other Pumpin		Time Series Data 🐧	18 AM 18 12 10 CM
Materials: Elapsed	Time 40 MINITES	Measurement 1	2 3 4
	Pumped 8 GALLONS	Well Yolumes I	<u> 2</u> 3+
() Tellon Well Eva	cuated ( ) yes. ( )no	Water Temp. 69.	
	of Well Volumes		9 6.98 7.17
(JPVC Purged			0 1600 1580
( ) Other			
•			
Sampling Data:			
Method:	Tellon	Physical &	Chemical Data:
( ) Bladder Pump	( ) Polypropylene	Appearanc	e: •
· · · -	V Nylon ' ) Other	( ) Clear	
	mpling Equipment	( ) Turbid	
1 7 · · · · = = · - · - · <del>-</del>	'√ Dedicated	( ) Color	
	) Prepared Off-Site		ible Product
	) Field Cleaned	( ) Other	
	etals Sample Field Filtered	. 1	ition of Sample
() PVC	) Yes	· -	
Womer Polyethylene	) No	pH	215 PM 8/19/93
	Method	— Onier <u>12</u>	TO THE VIEW
Certification: Manie Xfu had			

This sumple was collected and handled in accordance with standard regulatory and corporate procedures

		~ .		
Location No. A-I		Date: 8	19 193	Time: 9:30 A.M.
Sample NoA-1- 893	Ž	Weather:		DEPTH-TO-WATER TIME
			Gove	
Project/Client: John B			FAIR	<del></del>
ocation: 750 HIGH ST	REET, OAKLAND	Air Temper		
Job No. 5 30257		Personnel	MARIO	STERNAD
_				
WELL INFORMATION				
Casing, Dia .: 7- INCH	intake,			1.4500
( ) Stainless Steel	Diameter:	∨¢ 	nume of 2" at	nd 4" Casing in Gallons
( ) Steel	( ) Stainless Steel	Ī		
(Y PVC	( ) Steel	•> ∤		_
( ) Teffon	( ) PVC	٠. ا		
() Other	( ) Tellon	Gafs		
Water Level: 7-47 FEET	( ) Other	Gals . 35		
Water Level, 1-47 FRE	Well Conditions:	30 J		
Total Depth: 22,64 FT.	Well Conditions.	33		4 West Caring
Measuring Device	Well Clean to Bottom	•• 1		
() M-Scope	(Yyes, ( ) no	20 }		
My Other Clec. Desth	Well in Good Condition	18	_	
Volume of Water in	() yes, (MAO BROKEN	HEAD		·• ·
Casing Z.5 GALLONS	Surface Protection:	۱۰ -		* Wes Casase
Datum:	Clean ( ) yes, (Y no	إ د	/	
( ) Top of Surf. Casing	Condition ABSENT			· 
( Top of Well Casing	7.02001	, <del>, _</del>	10 20	30 40 20 60
	Lock ( ) yes, (Yno	•		of Water in West (Free!)
( ) Other	Lock ( ) yes, (%) no			
Purgirio Data:				
Method:	Tubing/rope		urging Equipa	rent
( ) Bladder Pump	( ) Tellon		( ) Dedicated	
( Bailer	( ) Polypropylene		( ) Prepared C	
( ) Submersible Pump	(J Nylon		( Field Clean	ed
( ) Peristaltic Pumo	( ) Other			2 6 25
( ) Other	Pumping Rate	T	ime Series Dat	· 10:25 10:35
Materials:	Elapsed Time 60 MIN	NTES	Measurement	1 2 3 4
Pump/Bailer	Volume Pumped 7:5	GAL	Well Volumes	_
() Tellon	Well Evacuated ( ) yes.			71.0 69.1 67.9
	Number of Well Volumes		pH (	6.71 6.98 Z.il
( ) Stainless Steel	Purged 3			
(SPIC	Purgea		Other Flec.	240 1050 1000
( ) Other		•	Conductivity	<b>Y</b>
•			·	•
Sampling Data:		F18** (		•
Method:	( ) Teflon		Physica	il & Chemical Data:
( ) Bladder Pump	( ) Polypropylene	•		ance:
( ) Bladder Pump (🗸 Bailer		•	Appear	
(A) Bailer	( ) Polypropylene	·	Appears ( ) Cle	ear
(A) Bailer ( ) Submersible Pump	( ) Polypropylene (-) Nylon ( ) Other	-	Appear: ( ) Cle	ear rbid
(A) Bailer ( ) Submersible Pump ( ) Peristaltic Pump	( ) Polypropylene ( ) Nylon ( ) Other Sampling Equipm	-	Appear: ( ) Cle ( ) Tui ( ) Co	ear rbid lor
(*) Bailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other	( ) Polypropylene ( ) Nylon ( ) Other Sampling Equipm ( ) Dedicated	ent	Appear: ( ) Cle ( ) Tui ( ) Co ( ) Imi	ear rbid Ior miscible Product
( Sailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other  Materials: Pump/Bailer	( ) Polypropylene ( ) Nylon ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S	ent Site	Appear: ( ) Cle ( ) Toi ( ) Co ( ) Imi ( ) Oti	ear rbid lor miscible Product her
( ) Sailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other  Materials: Pump/Bailer ( ) Tellon	( ) Polypropylene ( ) Nylon ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S ( ) Field Cleaned	ent Site	Appear: ( ) Cle ( ) Toi ( ) Co ( ) Imi ( ) Oil Filed Co	ear rbid for miscible Product her ondition of Sample
( Bailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other Materials: Pump/Bailer ( ) Tellon ( ) Stainless Steel	( ) Polypropylene ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S ( ) Field Cleaned Metals Sample Fie	ent Site	Appear: ( ) Cle ( ) Tui ( ) Co ( ) Imi ( ) Ou	ear rbid for miscible Product her ondition of Sample
( Bailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other  Materials: Pump/Bailer ( ) Tellon ( ) Stainless Steel ( ) PVC	( ) Polypropylene ( ) Other ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S ( ) Field Cleaned Metals Sample Field ( ) Yes	ent Site	Appear: ( ) Cle ( ) Toi ( ) Co ( ) Imi ( ) Oil Filed Co A Temp	ear rbid for miscible Product her condition of Sample
(NBailer () Submersible Pump () Peristaltic Pump () Other  Materials: Pump/Bailer () Tellon () Stainless Steel () PVC MOther Polyethelene	( ) Polypropylene ( ) Other ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S ( ) Field Cleaned Metals Sample Fie ( ) Yes ( ) No	ent Site	Appear: ( ) Cle ( ) Toi ( ) Co ( ) Imi ( ) Oil Filed Co A Temp	ear rbid for miscible Product her condition of Sample
( Bailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other  Materials: Pump/Bailer ( ) Tellon ( ) Stainless Steel ( ) PVC	( ) Polypropylene ( ) Other ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S ( ) Field Cleaned Metals Sample Field ( ) Yes	ent Site	Appear: ( ) Cle ( ) Toi ( ) Co ( ) Imi ( ) Oil Filed Co A Temp	ear rbid for miscible Product her ondition of Sample
(NBailer () Submersible Pump () Peristaltic Pump () Other  Materials: Pump/Bailer () Tellon () Stainless Steel () PVC MOther Polyethelene	( ) Polypropylene ( ) Other ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off-S ( ) Field Cleaned Metals Sample Fie ( ) Yes ( ) No	ent Site	Appear: ( ) Cle ( ) Toi ( ) Co ( ) Imi ( ) Oil Filed Co A Temp	ear rbid for miscible Product her condition of Sample

This sample was collected and handled in accordance with standard regulatory and corporate procedures

# CERTIFIED \$30257/11968B

# APPENDIX C

Work Plan Dated August 16, 1993



CERTIFIED \$30257/11968B

August 16, 1993

Ms. Madhulla Logan Alameda County Environmental Health Services Hazardous Materials and Storage Tanks Division 80 Swan Way, Room 200 Oakland, CA 94621

Subject:

Ground-Water Sampling and Testing at 750 High Street, Oakland, California for the Presence of Polychlorinated Biphenyls (PCBs) (CERTIFIED/Earth Metrics file reference

S30257/11968B)

Dear Ms. Logan:

Certified Engineering & Testing® Company

Environmental Consultants & Laboratory Services

7000 Marina Boulevard 4th Floor Brisbane, CA 94005 415-742-9900 Fax 415-742-1033

Boston
Providence
New York
Memphis
Dallas
San Francisco
Los Angeles

Enclosed please find the Work Plan to sample and analyze ground water collected from six (6) existing wells for Polychlorinated Biphenyls (PCBs) at the above-mentioned site. Destruction and grouting of monitoring wells on-site to grade surface will not occur the same day as sampling, but will be performed pending reportage of laboratory results to your office.

Please call me to let me know if you will attend the well sampling proposed to begin on August 17, 1993.

Sincerely,

Marc Papineau

Manager, Physical Sciences Department

#### LOCATION AND SITE DESCRIPTION

The subject site is located at 750 High Street (formerly 744 and 752 High Street), Oakland, California, and is presently occupied by a warehouse building and asphalt-paved lumber and materials storage areas. Six monitoring wells exist throughout the paved area, made accessible to sampling personnel by the recent resurvey and uncovering of asphalt pavement.

The subject property is immediately adjacent to the Southern Pacific Transportation Company railroad tracks to the east, a building supply business to the west, and High Street to the north.

#### **BACKGROUND**

The subject site was previously used as a metal salvage yard. Soil was scraped and off-hauled for proper disposal in June 1990 to remove PCB-affected soil. Six monitoring wells were installed in 1989. The six on-site monitoring wells were sampled and tested for PCBs and all except C-6 were found to contain no detectable amounts of PCI3 in 1990. Well C-6 was found to contain 0.59 parts per billion (ppb) PCBs.

#### PURPOSE AND SCOPE OF WORK

The purpose of this ground-water sampling is to perform final sampling of the six wells and then to perform will closure of the six wells. The presence of low concentration Polychlorinated Biphenyls (PCBs) in ground water in well C-6 is believed to be an artifact of drilling the wells through surface contamination. Pending determination and reportage of final results of PCBs in ground water, monitoring wells will be grouted to surface. Ground-water sampling described herein will be accomplished from six monitoring wells on-site.

#### **MOBILIZATION**

A representative of CERTIFIED/Earth Metrics will be on-site during one day, the morning of Tuesday, August 17, 1993, or at the next date available date convenient to Alameda County Hazardous Materials Unit. After adequately addressing site safety concerns, purging and sampling wells will commence at each of six separate monitoring well locations. All purge water will be collected in one labeled 55-gallon drum on-site, for future safe disposal.

Site safety equipment will include: safety cones to mark the work zone boundary, gloves, boots, and safety glasses.

#### **GROUND-WATER SAMPLING**

Field investigation procedures are summarized in Attachment 1.

Depth-of-water to top of casing or top of asphalt in all monitoring well locations will be accomplished prior to sampling using an electronic probe. Approximately three well volumes (approximately 5.0 gallons) will be purged from each monitoring well using a cleaned PVC bailer. Purged ground water will be placed into a labeled 55-gallon barrel for future disposal.

Ground-water samples from each well will then be taken by filling two amber liter bottles using a dedicated disposable bailer. Caution will be taken to wash all equipment with TSP and distilled water before entering another well. The well sampling order will be MW1 - MW6. All ground-water samples will be cooled with ice in a cooler and transported to a California Certified laboratory for analysis. A Chain-of-Custody form will be filed out in the field and accompany samples to the laboratory.

#### **GROUND-WATER ANALYSIS**

All ground-water samples taken will be tested for Polychlorinated Biphenyls (PCBs) (EPA Method 8080) on a seven workday turnaround plus additional sample for quality control.

# ATTACHMENT 1 CERTIFIED FIELD INVESTIGATION PROCEDURES

#### **GROUND-WATER SAMPLE COLLECTION PROCEDURE**

Prior to sampling, the depth-to water is measured to within one-hundredth of a foot to grade surface in each monitoring well using an electronic probe. Each screened boring is purged of at least three well volumes or until temperature, pH, and conductivity remains relatively constant (within 10%). Any floating product, sheen, turbidity or unusual odor is recorded. Reusable metal, PVC or teflon bailers are cleaned prior to bailing purge water.

Monitoring wells are allowed to settle for 10-20 minutes before a dedicated polyethylene disposable bailer is placed carefully below water surface to extract a ground-water sample. A ground-water sample will then be taken from each well location, placed into an appropriate container, labeled, and placed in iced storage, for transport to a State of California Certified laboratory to undergo the required testing for Polychlorinated Biphenyls (PCBs) (EPA Method 8080). A Chain-of-Custody record for all samples will be initiated by the field geologist and will be included in the final report.

All sampling data, direct measurements, a map of the site location of drums, any noticeable odor, sheen and other visual observations made at the time of sampling are recorded in a field notebook by CERTIFIED/Earth Metrics personnel. Well purge water is stored in a labeled drum on-site until results are computed to determine if safe removal and disposal is needed.

# CERTIFIED \$30257/11968B

# APPENDIX D

Letter Dated June 16, 1992 (Revised May 18, 1993) to Alameda County Health Agency



June 16, 1992 Revised May 18, 1993

Mr. Britt Johnson Hazardous Materials Specialist Alameda County Health Agency Department of Environmental Health 80 Swan Way, Room #200 Oakland, CA 94621

Subject:

Request for Your Review of the Enclosed Statement of Work Completed, Test Results of Samples Taken, and Well Monitoring of MW-5 (C-5) at the New Lumber Yard at 744

High Street, Oakland, California on April 8, 1992 (CERTIFIED/Earth Metrics file reference 11968)

Which Will Hopefully Result in your Recommendation of

Letter of Closure to RWQCB

Certified Engineering & Testing® Company

Dear Mr. Johnson:

Environmental Consultants & Laboratory Services We are writing you at the request of John Bacon, owner of the property fronting on High Street adjacent to the westerly boundary of the Southern Pacific Railroad main line right-of-way, formerly known as 744 and 758 High Street. The subject property is now known, along with an unrelated contiguous parcel to the west, as 750 High Street. CERTIFIED/Earth Metrics recommends case closure and closure of all six monitoring wells based upon monitoring results on consecutive sampling events (see Table 1), soil verification sampling results (see Table 2), and apparent absence of any significant health or environmental risks.

7000 Marina Bculevard 4th Floor Brisbane, CA 94005 415-742-9900 Fax 415-742-1033

#### **BACKGROUND INFORMATION**

Boston
Providence
New York
Memphis
Dallas
San Francisco
Los Angeles

Surface soil contamination with PCBs was discovered and remediated by Southern Pacific Transportation Company (SPTC). Ecology and Environment Inc. (consultant to SPTC) scraped the site and removed the soil from the site (see transportation documentation attached). Ecology and Environment has indicated that their remedial action at the subject site has been completed, as evidenced by post-excavation soil verification sampling and testing (see Table 2).

The site was paved in 1991 and the six wells installed by Ecology and Environment remain on site (see Figure 1). The ground-water direction at the site is known to be from the northeast to the southwest. Remedial action, as stated by Ecology and Environment, is complete.

As per the Statement of Work between CERTIFIED/Earth Metrics and Mr. John Bacon, CERTIFIED/Earth Metrics repaired, purged, and sampled one well (C-5), the farthest downgradient, to assess the presence of potential polychlorinated biphenyls (PCBs). The investigation involved repair, purging, and sampling one existing well (C-5) on site. The well was purged and sampled on six previous dates (see Table 1). On May 26, July 28 and December 4, 1989 and on June 25 and September 6, 1990, no PCBs were detected in well C-5. Additional ground water sampling and analysis of MW-5 (C-5) performed by CERTIFIED/Earth Metrics for Mr. John Bacon at the above-referenced site on April 8, 1992, showed no detectable PCBs in well C-5.

# C-5 WELL MONITORING RESULTS

The analytical results of April 8, 1992, supplemental sampling of the ground water from C-5 on the subject site showed no detectable PCBs. The following procedure was followed during well purging and sampling.

Four well volumes of ground water were purged from the well. Temperature/concluctivity and pH readings were taken for the water being discharged from the bailers.

After allowing the well to recover to 80 percent or more of the initial casing volume, a disposable bailer was lowered down the boring until water was encountered in the boring. The bailer was then slowly lowered half the distance of the length of the bailer and then removed from the boring. All samples were taken the same day as the purge event.

Monitoring well C-5 was purged and sampled in the following fashion. Sample water was gathered in one-liter glass jars. Samples were preserved by placing all the samples on ice to chill. A Chain of Custody was initiated and accompanied the samples to the laboratory. The samples were delivered to Sequoia Analytical Laboratory in good condition, at the correct temperature, and at the correct pH.

# CONCLUSION

The Non-Detection status of PCBs in monitoring wells A-1, A-5, B-2, C-2, MW-5 (C-5), and C-6 on four to five consecutive sampling events, post excavation soil verification/test results, and absence of any apparent health or environmental risks are reasons to close this case at 750 High Street (formerly 744 High Street), Oakland. Ground water sampled from well C-6 on September 6, 1990, contained 0.59 ppb which is marginally above detection limit (0.5 ppb). Therefore, CERTIFIED/Earth Metrics recommends closure of all wells including well C-6 and also recommends case closure.

The assessment was prepared in conformance with accepted practices for such studies and the in-house quality assurance program of CERTIFIED/Earth Metrics. The undersigned under penalty of perjury pledge that the facts presented herein are based upon available information discovered by CERTIFIED/Earth Metrics or presented to CERTIFIED/Earth Metrics and represent existing conditions at the site at the time of the investigation.

Sincerely,

Marc R. Papineau

Manager, Physical Sciences Department Registered Environmental Assessor 00791

Enclosed:

Chain of Custody, Lab Results, Water Well Data Sheet (Attachment 1)

Soil Transportation/Disposal Documentation (Attachment 2) Lab Results, Soil Sampling Location Map (Attachment 3)

CC:

Mr. John Bacon, Owner Mr. Richard Hiett, RWQCB

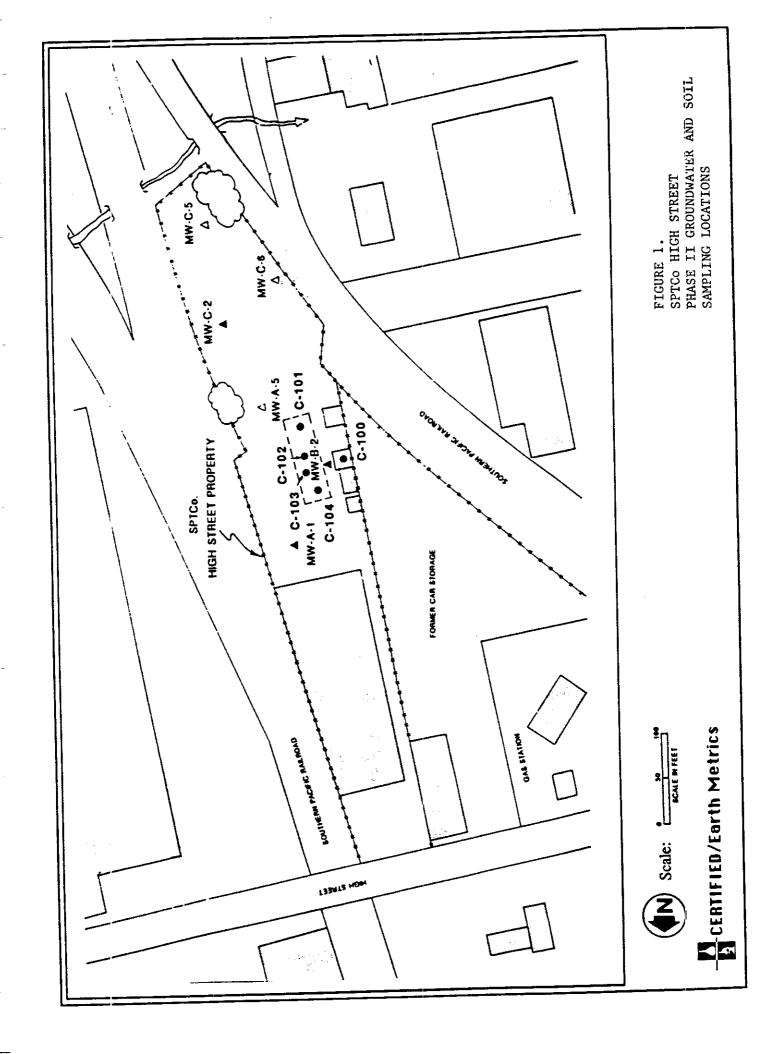


TABLE 1. ANALYTICAL RESULTS OF INVESTIGATION FROM WELLS AT 744 HIGH STREET, OAKLAND, CALIFORNIA (ppb)

SAMPLE ID DATE	PCBs IN WATER ppb	NOTES		
A-1				
5-26-89	ND	ND means not		
7-28-89	NT	detected		
12-4-89*	ND			
6-25-90	ND	NT means not		
9-6-90	ND	tested		
<b>A</b> -5				
5-26-89	ND			
7-28-89	ND			
12-4-89*	ND			
6-25-90	ND			
9-6-90	ND			
B-2				
5-26-89	ND			
7-23-89	ND			
12-4-89*	ND			
6-25-90	ND			
9-6-90	ND			
C-2				
5-26-89	1.0			
7-28-89	0.61			
12-4-89*	ND			
6-2:5-90	ND			
9-6-90	ND			

(CONTINUED)

TABLE 1 (CONTINUED). ANALYTICAL RESULTS OF INVESTIGATION FROM WELLS AT 744 HIGH STREET, OAKLAND, CALIFORNIA

SAMPLE I	D PC	Bs IN WATER (ppb)	NOTES
C-5 5-26-89 7-28-89 12-4-89* 6-25-90 9-6-90 4-8-92 C-6 5-26-89 7-23-89 12-4-89* 6-25-90 9-6-90		ND N	*12-4-89 was reported by Ecology and Environment as
ppb = p	arts per billion		12-4-90
Source:	Ecology & Environment Enseco, 1990 CERTIFIED/Earth Metrics,	1992	

TABLE 2. ANALYTICAL RESULTS OF APRIL 30/MAY 1, 1990 POST-EXCAVATION SAMPLING AT 744 HIGH STREET, OAKLAND, CALIFORNIA (PPM)

TOTAL PCBs IN SOIL (ppm)	NOTES
0.6	Arochlor 1242 & 1260
2.5	Arochlor 1254
1.5	Arochlor 1254
1.6	Arochlor 1260
ND (0.02)	
	SOIL (ppm)  0.6  2.5  1.5  1.6

ND = None detected above 0.02 ppm

PPM = parts per million

Source: Reported by Ecology and Environment, Inc., Curtis & Tomkins, Ltd.,

May 2, 1990

#### Attachment 1

Chain of Custody, Lab Results, and Water Well Data Sheet



(415) 364-9600 • FAX (415) 364-9233

Earth Metrics 7000 Marina Blvd.

Brisbane, CA 94005 Attention: Mark Armstrong

Client Project ID: Sample Descript:

#11968

Water, #1, W-9-MW6-5 6-5

Analysis Method: EPA 8080

204-1447 Lab Number:

Sampled: Received:

Apr 7, 1992 Apr 8, 1992

Apr 14, 1992 Analyzed: Reported: Apr 20, 1992

#### **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L.
PCB 1016	0.50	•••••	N.D.
PCB 1221			N.D.
		*******************************	N.D.
PCB 1232	0.50		N.D.
PCB 1242			N.D.
PCB 1248			N.D.
PCB 1254		***************************************	N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Nokowhat D. Herrera Project Manager

2041447.EAR <1>

**Earth Metrics** 7000 Marina Blvd.

Brisbane, CA 94005 Attention: Mark Armstrong Client Project ID: #11968

QC Sample Group: 204-1447

Reported: Apr 20, 1992

#### **QUALITY CONTROL DATA REPORT**

ANALYTE	AR 1260			
Method:	EPA 8080			
Analyst:	D.Dreblow			
Reporting Units:	μg/L			
Reporting Units: Date Analyzed:	Apr 10, 1992			
QC Sample #:	GBLK040892			
Sample Conc.:	N.D.			

Spike Conc. Added: 500

Conc. Matrix 510 Spike:

Matrix Spike 100 % Recovery:

Conc. Matrix 350 Spike Dup.:

Matrix Spike **Duplicate** 70 % Recovery:

Relative % Difference: 37

SEQUOIA ANALYTICAL

Nokowhat D. Herrera **Project Manager** 

% Recovery:	Conc. of M.S Conc. of Sample	x 100	
•	Spike Conc. Added		
Relative % Difference:	Conc. of M.S Conc. of M.S.D.	x 100	
	(Conc. of M.S. + Conc. of M.S.D.) / 2		

2041447.EAR <2>

# CHAIN OF CUSTODY RECORD

//////			REMARKS					L	EARTH METRICS INCORPORATED  2000 Moring Blvd 4th Floor	Brisbane, California 94005 Tel (415) 742-9900 Fax (415) 742-1033
	NUMBER / O		\$ 875	21 ). Her				Date/Time	Date/Time	Date/Time
			STATION LOCATION (NARRATIVE DESCRIPTION)	C-5 2000				Received by: Signature	Received by: Signature	Received by: Signature
DRESS	•	1	STA (NARR	W-9-mWs				Date/Time	1 (2)	Date/Time
SITE NAME AND ADDRESS	750 High	TURE ROME	COMP.	11:00						Signature
PROJ. NO.	2 87511	SIGNA	STA.NO. DATE (LABEL)	76-8-6				Relinquished by: Signature	Relinquished by: Signature	Relinquished by: Signature

#### WATER WELL DATA SHEET



DATE 4-8.92 748-92 SAMPLER AMH

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mw os						5	62	7. 7	1/8//05
C-5	747					10	60	7, 3	126 ×10
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### QC LOT ASSIGNMENT REPORT Semivolatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
054710-0001-SA 054710-0002-SA 054710-0003-SA 054710-0004-SA 054710-0005-SA 054710-0006-SA 054710-0007-SA 054710-0008-SA	AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS	PCB-A PCB-A PCB-A PCB-A PCB-A PCB-A PCB-A	12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A	12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A 12 SEP 90-A



#### METHOD BLANK REPORT Semivolatile Organics by GC

Analyte	Result	Units	Reporting Limit	
Test: 608-PCB-A Matrix: AQUEOUS QC Lot: 12 SEP 90-A	QC Run: 12 SEP 90-A			
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	0.065 0.065 0.065 0.065 0.065 0.50	



DUPLICATE CONTROL SAMPLE REPORT Semivolatile Organics by GC

		Concentration					uracy	Precision	
Analyte	•	Spiked	Measured DCS1 DCS2		AVG	Average(%) DCS Limits		(RPD) DCS Limit	
Category: PCB-A Matrix: AQUEOUS QC Lot: 12 SEP 90-A Concentration Units: u	ıg/L								
Aroclor 1254		5.0	3.93	4.11	4.02	80	52-136	4.5	3€

Calculations are performed before rounding to avoid round-off errors in calculated results.



# SAMPLE DESCRIPTION INFORMATION for Ecology and Environment

Lab ID	Client ID	Matrix	Sampled Date Time	Received Date
054710-0001-SA 054710-0002-SA 054710-0003-SA 054710-0004-SA 054710-0005-SA 054710-0006-SA 054710-0007-SA 054710-0008-SA	MWA-1 MWA-5 MWB-2 MWB-3 MWB-4 MWC-2 MWC-5 MWC-6	AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS AQUEOUS	06 SEP 90 06 SEP 90 06 SEP 90 06 SEP 90 06 SEP 90 06 SEP 90 06 SEP 90	07 SEP 90 07 SEP 90 07 SEP 90 07 SEP 90 07 SEP 90 07 SEP 90 07 SEP 90



#### Method 608

Client Name: Ecology and Environment

Client ID: MWA-1

Lab ID: 054710-0001-SA Enseco ID: 164820

Matrix: AQUEOUS Sampled: 06 SEP 90 Received: 07 SEP 90

Authorized: 10 SEP 90 Prepared: 12 SEP 90 Analyzed: 18 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclar 1016 Aroclar 1221 Aroclar 1232 Aroclar 1242 Aroclar 1248 Aroclar 1254 Aroclar 1260	ND	ug/L	0.065
	ND	ug/L	0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford



#### Method 608

Client Name: Ecology and Environment

Client ID: MWA-5

Enseco ID: 164821 Sampled: 06 SEP 90 Prepared: 12 SEP 90 054710-0002-SA Lab ID: Matrix: AQUEOUS

Received: 07 SEP 90 Analyzed: 18 SEP 90 Authorized: 10 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND	ug/L	0.065
	ND	ug/L	0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford



#### Method 608

Client Name: Ecology and Environment Client ID: MWB-2

054710-0003-SA Lab ID:

Enseco ID: 164822 Sampled: 06 SEP 90 Prepared: 12 SEP 90 Matrix: AQUEOUS Authorized: 10 SEP 90 Received: 07 SEP 90 Analyzed: 18 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND	ug/L	0.065
	ND	ug/L	0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford

#### Method 608

Client Name: Ecology and Environment Client ID: MWB-3

Enseco ID: 164823 Sampled: 06 SEP 90 Prepared: 12 SEP 90 054710-0004-SA Lab ID: Received: 07 SEP 90 Analyzed: 18 SEP 90 Matrix: AQUEOUS Authorized: 10 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1254	ND	ug/L	0.065
	ND	ug/L	0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford



#### Method 608

Client Name: Ecology and Environment Client ID: MWB-4

Client ID: MWB-4
Lab ID: 054710-0005-SA
Matrix: AQUEOUS
Authorized: 10 SEP 90 Enseco ID: 164824 Sampled: 06 SEP 90 Prepared: 12 SEP 90 Received: 07 SEP 90 Analyzed: 18 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND	ug/L	0.065
	ND	ug/L	0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford



#### Method 608

Client Name: Ecology and Environment Client ID: MWC-2

MWC-2 054710-0006-SA Enseco ID: 164825 Sampled: 06 SEP 90 Prepared: 12 SEP 90 Lab ID: Received: 07 SEP 90 Analyzed: 18 SEP 90 AQUEOUS Matrix: Authorized: 10 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	0.065 0.065 0.065 0.065 0.065 0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford

#### Method 608

Client Name: Ecology and Environment Client ID: MWC-5 Lab ID: 054710-0007-SA Ensection

Enseco ID: 164826 Sampled: 06 SEP 90 Prepared: 12 SEP 90 Received: 07 SEP 90 Analyzed: 18 SEP 90 Matrix: AQUEOUS Authorized: 10 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND	ug/L	0.065
	ND	ug/L	0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford



#### Method 608

Client Name: Ecology and Environment Client ID: MWC-6 Lab ID: 054710-0008-SA Ensect Enseco ID: 164827 Sampled: 06 SEP 90 Prepared: 12 SEP 90 Received: 07 SEP 90 Analyzed: 18 SEP 90 AQUEOUS Matrix: Authorized: 10 SEP 90

Parameter	Result	Units	Reporting Limit
Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	ND ND ND ND ND ND 0.59	ug/L ug/L ug/L ug/L ug/L ug/L	0.065 0.065 0.065 0.065 0.065 0.50

ND = Not detected NA = Not applicable

Reported By: Lisa Weiskopf

Approved By: Lisa Stafford

ecology and environment, inc.

CHAIN OF CUSTODY RECORD

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#### **GROUND-WATER SAMPLING**

AT

750 HIGH STREET

OAKLAND, CALIFORNIA

Prepared For:

MR. JOHN BACON

September 8, 1993

September 8, 1993

Ms. Madhulla Logan Alameda County Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Subject:

Ground-Water Sampling, 750 High Street, Oakland, California (CERTIFIED/Earth Metrics file reference

S30257/11968B)

Dear Ms. Logan:

On behalf of the owner of the above-referenced site, Mr. John Bacon, enclosed is CERTIFIED/Earth Metrics report of Ground-Water Sampling for Polychlorinated Biphenyls (PCBs) for 750 High Street (formerly, 744 and 752 High Street), Oakland. Work was in accordance with the Work Plan submitted August 16, 1993. Standard operating procedures are provided herein as Appendix A.

CERTIFIED/Earth Metrics completed its field work on the subject site on August 19, 1993. Laboratory analyses by U.S. EPA Method 608/8080 for PCBs in six monitoring wells determined no detectable amounts of PCBs present. The laboratory analytical report, Sample Chain-of-Custody, and Well Sampling Logs are included as Appendix B.

Having determined no PCBs to be present, CERTIFIED/Earth Metrics recommends case closure at this time and requests same on behalf of the owner. Please call if you have any questions about the report.

Sincerely,

Marc R. Papineau Project Manager

Michael McDonald, P.E. Project Engineer

cc. Mr. Richard Hiett, California RWQCB



September 5, 1993

Ms. Madhulia Logan Alameda County Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Subject:

Ground-Water Sampling, 750 High Street, Oakland, California (CERTIFIED/Earth Metrics file reference

\$30257/11968B)

Dear Ms. Logan:

On behalf of the owner of the above-referenced site, Mr. John Bacon, enclosed is CERTIFIED/Earth Metrics report of Ground-Water Sampling for Polychlorinated Biphenyis (PCBs) for 750 High Street (formerly, 744 and 752 High Street), Oakland. Work was in accordance with the Work Plan submitted August 16, 1993. Standard operating procedures are provided herein as Appendix A.

Certified Engineering & Testing! Company

CERTIFIED/Earth Metrics completed its field work on the subject site on August 19, 1993. Laboratory analyses by U.S. EPA Method 608/8080 for PCBs in six monitoring wells determined no detectable amounts of PCBs present. The laboratory analytical report, Sample Chain-of-Custody, and Well Sampling Logs are included as Appendix B.

Environmental Consultants & Laboratory Services

Having determined no PCBs to be present, CERTIFIED/Earth Metrics recommends case closure at this time and requests same on behalf of the owner. Please call if you have any questions about the report.

7000 Marina Boulevard 4th Floor Brisbane, CA 94005 (415) 742-9900 Fax (415) 742-1033

Sincerely,

Boston Providence New York Memphis Dallas San Francisco Los Angeles Marc R. Papineau Project Magager

Michael McDonald, P.E.

Project Engineer

cc. Mr. Richard Histi, California RWQCB

#### **GROUND-WATER SAMPLING**

AT

750 HIGH STREET

OAKLAND, CALIFORNIA

Prepared For:

MR. JOHN BACON

September 8, 1993

Prepared By:

CERTIFIED/EARTH METRICS 7000 Marina Boulevard, 4th Floor Brisbane, CA 94005 (415) 742-9900

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• •	May 18, 1993) to Alameda County Health Agency	D-1

#### **EXECUTIVE SUMMARY**

The subject site is located at 750 High Street (formerly 744 and 752 High Street), in Oakland, California (see Figures 1 and 2). Six monitoring wells on site were located by survey and uncovered, and then were inspected by CERTIFIED/Earth Metrics. Depths to ground water were measured by CERTIFIED/Earth Metrics using an electronic probe on August 19, 1993. The six monitoring wells were then purged and sampled by CERTIFIED/Earth Metrics on August 19, 1993 in accordance with the approved Work Plan, using standard operating procedures (see Appendix A).

Samples were transported under an appropriate sample Chain-of-Custody to a California-certified laboratory for analysis of potential Polychlorinated Biphenyls (PCBs). None of the six ground-water samples collected were found by means of laboratory analysis using U.S. EPA Method 608/8080 to have detectable amounts of PCBs. The detection limit was 0.5 parts per billion (ppb) except for Arochlor 1221 for which the detection limit was 2.0 ppb.

Sampling and analysis were performed by CERTIFIED/Earth Metrics and Sequoia Analytical in accordance with the Work Plan submitted August 16, 1993 to Ms. Madhulla Logan of the Alameda County Health Agency, Department of Environmental Health. The Work Plan specified the well purging and sampling protocol and the proposed use of the monitoring results. Monitoring results were agreed by Alameda County and CERTIFIED/Earth Metrics to be used in agency determination of the appropriateness of well closure and case closure by the Alameda County Department of Environmental Health and California Regional Water Quality Control Board (RWQCB).

Based upon review of the well monitoring results for August 1993, which were nondetectable for PCBs, and review of the previous well monitoring results, CERTIFIED/Earth Metrics recommends well closure and case closure at this time.

#### 1. INTRODUCTION, PURPOSE, AND SCOPE OF WORK

The subject site, 750 High Street (formerly 744 and 752 High Street) in Oakland is presently occupied by a warehouse building, a parking lot with stacked wood and customer parking areas.

The purpose of this ground-water sampling and analysis event was to determine the presence or absence of Polychlorinated Biphenyls (PCBs) in ground water on site. Based upon the Work Plan submitted August 16, 1993 and agreement with Alameda County, the laboratory analysis results are to be used in consideration of the appropriateness of case closure. Upon determination of no detectable amounts of Polychlorinated Biphenyls (PCBs) in ground water, monitoring wells are to be considered for closure by grouting them to the surface and the open case is to be recommended by Alameda County to RWQCB for closure.

#### 2. LOCATION AND SITE DESCRIPTION

The subject site is located at 750 High Street, Oakland, California, and is presently occupied by a warehouse building, and asphalt-paved, wood and construction materials storage areas.

The subject property is immediately adjacent to the Southern Pacific railroad tracks to the east, a building supply business to the west, and High Street to the north.

#### 3. BACKGROUND

The subject site was previously used as a metal salvage yard. Surface soil contamination with PCBs was discovered and remediated by Southern Pacific Transportation Company (SPTC) in June 1990. Monitoring wells were installed and first sampled in May 1989. Soil was scraped and transported off site in June 1990. The site was paved in 1991.

Prior to being covered with pavement, the six on-site monitoring wells were sampled and tested on at least five (5) previous monitoring events, May 1989, July 1989, December 1989, June 1990, and September 1990 and four of the six wells were then found to contain no detectable amounts of PCBs. Monitoring well C-2 was found to contain 0.61 to 1.0 ppb in May and July 1989; however, subsequently in December 1989, June 1990, and September 1990, well C-2 was found to contain no detectable PCBs. Well C-6 was found to contain no detectable PCBs in four events and then 0.59 ppb in September 1990 (See Table 1, Summary of Analytical Ground-Water Data). The detection limit was reported by the laboratory of previous test events (ENSECO) to be 0.50 ppb for Arochlor 1260.

#### 4. GROUND-WATER SAMPLING

A representitive of CERTIFIED/Earth Metrics arrived on site the morning of Thursday, August 19, 1993. After adequately addressing Site safety concerns, depth-to-water level to top of casing was measured in each well using an electronic probe. The following are depth-to-water measurements taken by CERTIFIED/Earth Metrics from on-site monitoring wells on August 19, 1993:

MW Number	Depth-to-Water (feet below top of casing*)
A-1	7.47
B-2	6.79
A-5	8.45
C-2	10.77
C-6	9.62
C-5	11.52

\* Note:

Casing heights relative to grade surface were variable owing to upper casing damage. Wells which had been inadvertently covered with pavement overlay were located by survey and uncovered. Lost upper casing was as much as 12 inches.

Purging and sampling wells was performed in accordance with CERTIFIED/Earth Metrics standard procedure outlined in Appendix A. Wells were purged of at least three well volumes and temperature, pH, and conductivity measurements were taken after each well volume. All purge water was collected in one 55-gallon drum on site. The 55-gallon drum was labeled and stored temporarily on site for appropriate safe disposal. Recharge of ground water in monitoring wells on site was slow and approximately 20 minutes was allowed prior to purging each well volume.

Ground-water sampling was accomplished from each well by filling two (2) one-liter amber bottles using new dedicated disposable polyethylene bailers. Sample pH was monitored to be 7.1 to 7.3 (near neutral). All downhole equipment was washed with trisodium phosphate (TSP) and distilled water, before use in each well. The well sampling order was A-1, B-2, A-5, C-2, C-5, and C-6, in order of increasing historic levels of PCBs. All ground-water samples were cooled with ice in a cooler and transported to an California-certified laboratory for analysis. A Chain-of-Custody form accompanied ground-water samples to the laboratory.

Before sampling, minimum of three well volumes was purged from each well or until ground-water turbidity, temperature, pH, and electrical conductivity remained relatively constant (within 10%). Care to minimize silt in ground-water samples was taken during sampling. A polyvinyl chloride (PVC) bailer was used to purge, and a disposable dedicated polyethylene bailer was used to sample each well. The PVC bailer was washed thoroughly with TSP and water and triple-rinsed prior to use in each well.

Proper sample containers, sampling techniques, labeling, preservation, and Chain of Custody was used, according to CERTIFIED/Earth Metrics protocol, to reduce the chance of an error in sampling. Sequoia Analytical Laboratory, Redwood City, a California DHS-certified laboratory, performed all analytical testing.

Site safety measures and equipment were used to minimize potential for injury during monitoring well sampling. Safety cones were set near each monitoring well location prior to sampling, to designate the work zone. Because the site is currently used as a lumber yard, the safety cones were also used to direct traffic around field personnel. Safety goggles, steel-toed boots, and gloves were used to protect workers.

#### 5. GROUND-WATER ANALYSIS

Ground-water samples were analyzed for Polychlorinated Biphenyls (PCBs) (U.S. EPA method 608/8080). Results are summarized below in Table 1. Previous results are summarized in Table 2 for previous monitoring events from May 1989 to April 1992.

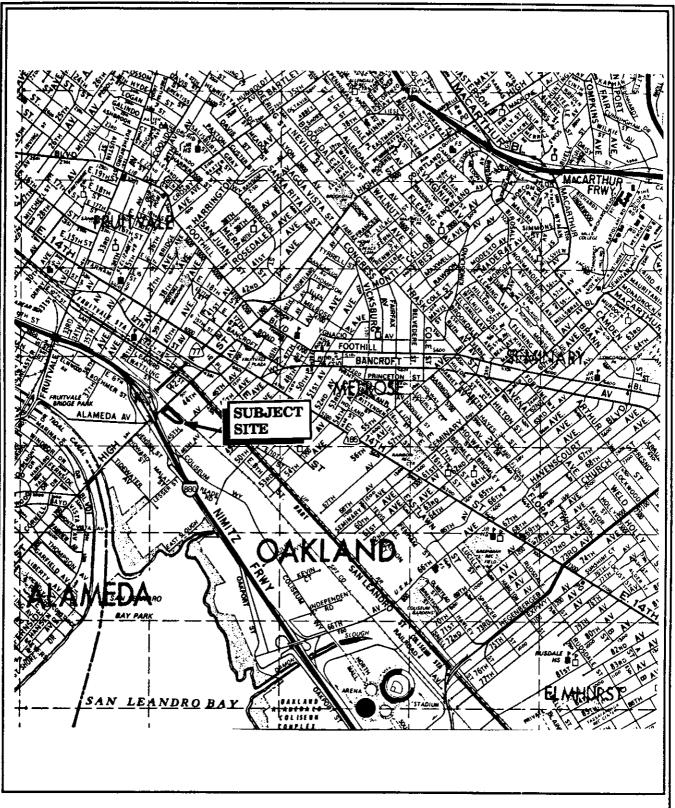
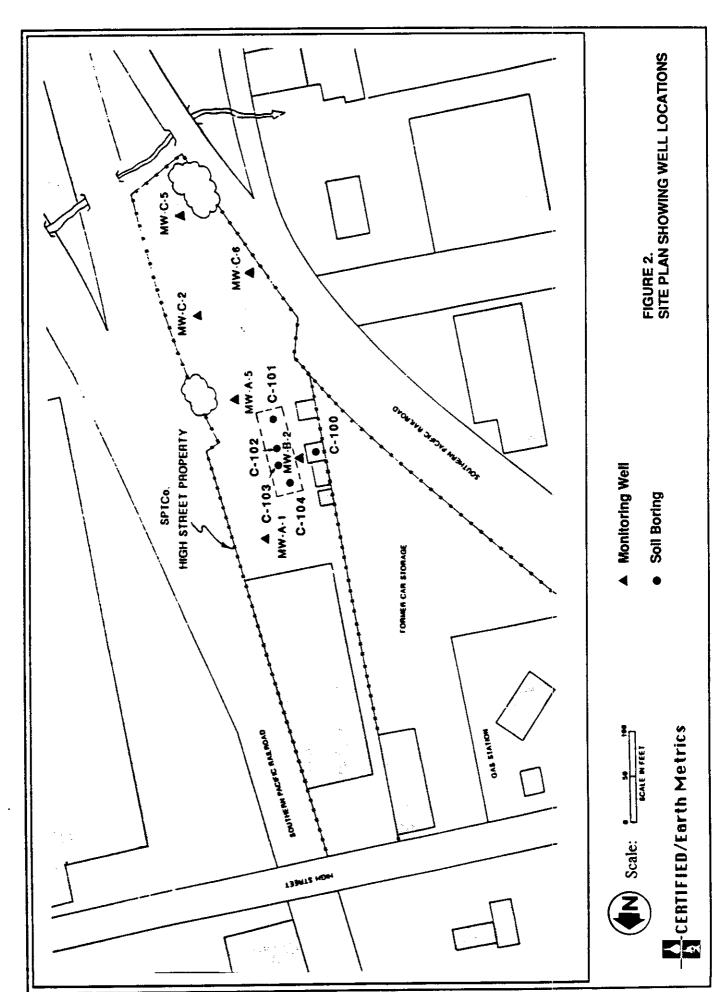




FIGURE 1. SITE LOCATION MAP

**CERTIFIED/Earth Metrics** 



Page 5

#### TABLE 1 AUGUST 1993 ANALYTICAL GROUND-WATER DATA 750 HIGH STREET OAKLAND, CALIFORNIA (August 19, 1993)

Monitoring Well Number	Date	Polychlorinated Bipherryls (PCBs) (ppb)
A-1	8/19/93	ND
B-2	8/19/93	ND
A-5	8/19/93	ND
C-2	8/19/93	ND
C-5	8/19/93	ND
C-6	8/19/93	ND

Results are expressed in parts per billion (ppb)
Polychlorinated Biphenyls (PCBs) by EPA method 608/8080
SOURCE: Sequoia Analytical, 1993

TABLE 2. ANALYTICAL RESULTS OF INVESTIGATION FROM WELLS AT 744 HIGH STREET, OAKLAND, CALIFORNIA (ppb)

PCBs IN WATER ppb  ND NT ND ND ND ND ND	NOTES  ND means not detected  NT means not tested
ND NT ND ND ND	ND means not detected  NT means not
NT ND ND ND	detected  NT means not
NT ND ND ND	detected  NT means not
NT ND ND ND	detected  NT means not
ND ND ND	detected  NT means not
ND ND	
ND	
	tested
ND	
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—	
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1.0	
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ND	
ND	
ND	
	ND ND ND ND ND ND ND ND ND ND

(CONTINUED)

TABLE 2 (CONTINUED). ANALYTICAL RESULTS OF INVESTIGATION FROM WELLS AT 744 HIGH STREET, OAKLAND, CALIFORNIA

DATE	D	PCBs IN WATER (ppb)	NOTES
C-5 5-26-89 7-28-89 12-4-89* 6-25-90 9-6-90		ND ND ND ND ND	
4-8-92 C-6 5-26-89 7-28-89 12-4-89* 6-25-90		ND ND ND ND	*12-4-89 was
9-6-90		ND 0.59	reported by Ecology and Environment as 12-4-90

#### APPENDIX A CERTIFIED/Earth Metrics Field Investigation Procedures

#### **GROUND-WATER SAMPLE COLLECTION PROCEDURE**

Prior to sampling, the depth-to water was measured to within one-hundredth of a foot to top of casing in each monitoring well location using an electronic probe. Casing damage was noted. Each monitoring well was purged of at least three well volumes or until temperature, pH, and conductivity remained relatively constant (within 10%). Any floating product, sheen, turbidity or unusual odor was recorded if present; none was observed. A reusable PVC bailer used for purging, prior to sampling, was cleaned with trisodium phosphate (TSP) and triple rinsed with distilled water prior to bailing. A separate bailer was used in each well for sampling.

Ground-water was allowed to recharge and settle for 20 minutes before a dedicated disposable polyethylene bailer was placed carefully below water surface to collect a ground-water sample, to minimize the amount of sediment in the ground-water sample. A ground-water sample was then carefully poured into an appropriate container, labeled and placed in iced storage, for transport to a State of California certified laboratory for the required testing for Polychlorinated Biphenyls (PCBs) (EPA method 608/8080). A Chain of Custody record for all samples was initiated by the field technician and is included in Appendix B.

All sampling data, direct measurements, a map of the site, location of drums, any noticeable odor, sheen and other visual observations made at the time of sampling were recorded on Well Sampling Logs by the CERTIFIED/Earth Metrics technician. Well purge water was stored temporarily on site in a labeled 55-gallon drum pending test results.

## CERTIFIED **\$30257/11968B**

# APPENDIX B Laboratory Ground-Water Test Reports, Chain-of-Custody, and Well Sampling Logs

# CERTIFIED \$30257/11968B

### placeholder for App. B. encl. (14 pages?)

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Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland Water, A-1-893

EPA 8080 3HA7101 Sampled: Received: Extracted:

Aug 19, 1993 Aug 20, 1993 Aug 26, 1993

Analyzed: Aug 30, 1993 Reported: Sep 1, 1993

**POLYCHLORINATED BIPHENYLS (EPA 8080)** 

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221	2.0	***************************************	N.D.
PCB 1232	0.50	***************************************	N.D.
PCB 1242	0.50		N.D.
PCB 1248	0.50	**************************	N.D.
PCB 1254	0.50	••••	N.D.
PCB 1260			N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland Water, B-2

EPA 8080 3HA7102 Sampled: Aug 19, 1993 Received: Aug 20, 1993 Extracted: Aug 26, 1993

Analyzed: Aug 30, 1993 Reported: Sep 1, 1993

### **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221	2.0	***************************************	N.D.
PCB 1232	0.50	******************************	N.D.
PCB 1242	0.50	***************************************	N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50	***************************************	N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Client Project ID: Sample Descript: Analysis Method: Lab Number:

PO #13325, 530257 - Oakland

Water, A-5 EPA 8080 3HA7103 Sampled: Aug 19, 1993 Received: Aug 20, 1993 Extracted: Aug 30, 1993 Analyzed: Aug 31, 1993

Reported: Sep 1, 1993

### **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016	0.50	************************************	N.D.
PCB 1221	2.0	********************************	N.D.
PCB 1232	0.50	***************************************	N.D.
PCB 1242	0.50		N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50		N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Client Project ID: Sample Descript: Water, C2 Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland

**EPA 8080** 3HA7104

Sampled: Aug 19, 1993 Received: Aug 20, 1993 Extracted: Aug 30, 1993

Analyzed: Aug 31, 1993 Reported: Sep 1, 1993

### **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016		***************************************	N.D.
PCB 1221			N.D.
PCB 1232	0.50	***************************************	N.D.
PCB 1242	0.50	***************************************	N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50	***************************************	N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Client Project ID: Sample Descript: Analysis Method:

Lab Number:

PO #13325, 530257 - Oakland Water, C-5

EPA 8080 3HA7105 Sampled: Aug 19, 1993 Received: Aug 20, 1993 Extracted: Aug 30, 1993

Analyzed: Aug 31, 1993 Reported: Sep 1, 1993

### **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016		***************************************	N.D.
PCB 1221		*******************************	N.D.
PCB 1232	0.50		N.D.
PCB 1242	0.50		N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50	***************************************	N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 



Client Project ID: PO #13325, 530257 - Oakland Sample Descript: Water, C-6

Sample Descript: Water, C-6 Analysis Method: EPA 8080 Lab Number: 3HA7106 Sampled: Aug 19, 1993
Received: Aug 20, 1993
Extracted: Aug 30, 1993
Analyzed: Aug 31, 1993
Reported: Sep 1, 1993

### **POLYCHLORINATED BIPHENYLS (EPA 8080)**

Analyte	Detection Limit µg/L		Sample Results µg/L
PCB 1016	0.50	***************************************	N.D.
PCB 1221	2.0	***************************************	N.D.
PCB 1232	0.50	***************************************	N.D.
PCB 1242	0.50	1	N.D.
PCB 1248	0.50	***************************************	N.D.
PCB 1254	0.50	***************************************	N.D.
PCB 1260	0.50	***************************************	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 



Certified Earth Metrics 7000 Marina Blvd. Brisbane, CA 94005

Client Project ID:

PO #13325, 530257 - Oakland

Matrix:

Water

Attention: Mario Sternad

QC Sample Group: 3HA7101-06

Reported: Sep 1, 1993

#### **QUALITY CONTROL DATA REPORT**

**ANALYTE** 

PCB 1248

Method:

**EPA 8080** 

**Analyst:** 

L. Laikhtman

Conc. Spiked:

500

**Units:** 

μg/L

LCS Batch#:

BLK082693

**Date Prepared:** 

8/26/93

**Date Analyzed:** 

8/26/93

Instrument I.D.#:

GCHP-10

LCS %

Recovery:

64

**Control Limits:** 

50-150

MS/MSD

Batch #:

PBLK082693

Date Prepared:

8/26/93

Date Analyzed:

8/26/93

Instrument I.D.#:

GCHP-10

**Matrix Spike** 

% Recovery:

64

Matrix Spike **Duplicate %** 

Recovery:

64

Relative %

Difference:

0.0

**SEQUOIA ANALYTICAL** 

Nokowhat D. Herrera **Project Manager** 

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

3HA7101.EAR <7>

Shade areas for laboratory use only Retain Pink copy and submit White and Yellow copies to the Laboratory

ACCUFORMS, INC., BRAINTREE, MA (617) 356-2626

### Groundwater Monitor Well Sampling & Field Data Sheet

Lancia No. 4-/		Date: 6/10/07 Fire 0:00 0.44
Location No. <u>C-6</u>		Date: 8/19/93 Time: 9:55 A.M.
Sample NoC6		Weather: DEPTH TO WATER
Project/Client: JOHA		Conditions FAIR
Location: 750 HIGH	ST. CAKLAND, CA	Air Temperature
Job No. < 30257		Personnel MARIO STERNAD
-		
•		
WELL INFORMATION		-
Casing, Dia.: 2-144cr	Intake,	Makama at 28 mad 48 Carlanda Carl
( ) Stainless Steel	Diameter:	Volume of 2" and 4" Casing in Gallons
() Sieel	( ) Stainless Steel	.,]
(YPVC ( ) Tellon	( ) Steel ( ) PVC	
( ) Other	() Tellon	Gals 35
Water Level: 9.62	( ) Other	V413. 34
Total Depth: 22-42	Well Conditions:	» ·
Measuring Device	Well Clean to Bottom	25 C Wot Gaung
() M-Scope	() yes, () no	
( ) Other	Well in Good Condition	,
Volume of Water in	() yes, (Yno HEAD	BRCKEN
Casing Z.I GAL	Surface Protection:	10 - T Was Comme
Datum:	Clean ( ) yes. (Yno	1
( ) Top of Surf. Casing	Condition ABSENT	0
( ) Top of Well Casing		0 10 20 10 10 EO 73
( ) Other	Lock ( ) yes, ( ) no	Amquel of Water in West (Feet)
Purging Data:		
Melhod:	Tubing/rope	Purging Equipment
( ) Bladder Pump	( ) Tellon	( ) Dedicated
(YBailer	( ) Polypropylene	
( ) Submersible Pump	Nylon	Wield Cleaned of got RT
( ) Peristaltic Pumo	( ) Other	
( ) Other	Pumping Rate	Time Series Data N N N
Materials:	Elapsed Time 30 M	Messuement i 2 3 4
Pump/Bailer	Volume Pumped	5 GAL Well Volumes 1 2 3
( ) Tellon	Well Evacuated ( ) yes.	
( ) Stainless Steel	Number of Well Volume	PH 7.06 7.24 7.24
() Other	Purged 3+	Other 6-C 1670 1650 1650
( ) Obler		
Samoling Data:		
Method:	( ) Tellon	Physical & Chemical Data:
( ) Bladder Pump	( ) Polypropylen (Y Nylon	Appearance:
( ) Bailer ( ) Submersible Pump	( ) Other	() Clear
( ) Peristaltic Pump	Sampling Equips	Ment MTurbid
() Other	(V) Dedicated	( ) Color
Materials: Pump/Bailer	( ) Prepared Off	Site ( ) Immiscible Product
() Tellon	( ) Field Cleaned	Stort Condition of Consults
( ) Stainless Steel	Metais Sample F	ried Condition of Sample
()PVC	Λ ()Yes	pH
(40 mer_ Pohyethy)	lene () No	Other 2:40 8/19/3
Materials: Tubing/rope	Method	
Certification: Mario	X dime!	
		with standard regulatory and corporate procedures

# Groundwater Monitor Well Sampling & Field Data Sheet

Location No. C-5		Date: 🙎	3119193	Time: 9:55 A.M.
Sample No. C-5		Weather	•	DEPTH TO WATER
Project/Client: JOHN BANNISTER		Conditio	ns FAIR	
Location: 750 HIGH ST		Air Temp	erature	
Job No. \$30257		Personn	el MARI	O STERNAD
WELL INFORMATION				
Casing, Dia.: 7 INCH	ļntake,			
( ) Stainless Steel	Diameter:	\ sa _	volume of 2" a	nd 4" Casing in Gallons
( ) Steel	( ) Stainless Steel	ī	· · · · · · · · · · · · · · · · · · ·	
MPVC	( ) Steel	•• 1		_
( ) Teflon	() PVC	•4		
( ) Other	( ) Tellon	Gais . 35		
Water Level: 11.52 FECT	() Other	[ مر		
	Well Conditions:	25		« Wed Coung
Measuring Device	Well Clean to Bottom	}		
() M-Scope	( ) yes, ( ) no Well in Good Condition	30		
(~YOther <u>Elec Dep</u> )	(Vyes, ( ) no	19 4		
Casing 1.7 GAL	Surface Protection:	10		T Was Game
Datum:	Clean ( yes. ( ) no	s		
( ) Top at Surf. Casing	Condition	٠	<u>/</u>	
( ) Top of Well Casing		e e	10 20	20 40 \$0 60
( ) Other	Lock ( ) yes, ( I no		Amount	al Water in West (Fresh
Purging Data:				
Method:	Tubing/rope		Purging Equipo	nent
( ) Bladder Pump	() Tellon	_	( ) Dedicated	H Cha
( Bailer	( ) Polypropylene ( ) Nylon		( ) Prepared C (Y Field Clean	
( ) Submersible Pump ( ) Peristaltic Pump	( ) Other		( W FIELD CIVEL!	<b>\$13</b>
() Other	Pumping Rate	<del></del>	Time Series Dat	2
Materials:	Elapsed Time AO M	NINUTES	Measurement	1 2 3 4
Pump/Bailer	Volume Pumped 4,5		Well Volumes	1 2 3
( ) Teflon	Well Evacuated ( ) yes.		Water Temp.	(elast 64, 4 64,3
( ) Stainless Steel	Number of Well Volumes		pH	7.48 7.29 7.33
(N PVC	Purged 3		Other Elec.	270 1220 1220
( ) Other			Conductivit	•)
•				<i>0</i> 
Samuline Date:				
Sampling Data: Method:	( ) Tellon	<del></del>	Physic	al & Chemical Data:
( ) Bladder Pump	( ) Polypropylene	•		
( Sailer	( ) Nylon		Appear	
( ) Şubmersible Pump	( ) Other		()CIO — (Y Tu	
( ) Peristaltic Pump	Sampling Equipm	ent	() Co	
( ) Other	(Y) Dedicated			miscible Product
Materials: Pump/Baile)	( ) Prepared Off-S		( ) 01	
() Tellon	( ) Field Cleaned		Filed C	ondition of Sample
( ) Stainless Steel	Metals Sample Fie	eld Filtered,	N/A Temp	
() PVC	() Yes		ρH	510103
140 mer Poly elhylene	() No		Other	200 P.M. 8/19/93
Materials: Tubing/rope	Method			
Certification: Maris &	friend			

This sample was collected and handled in accordance with standard regulatory and corporate procedures

### Environmental

# Groundwater Monitor Well Sampling & Field Data Sheet

Location No. C-2		Date: 8/19/93 Time: 9:50 A.M.
Sample NoC-Z		Weather: DEPTH-TO-WATE
Project/Client: JOHN (	SAMAJICTER	Conditions FAIR
Location: 750 HIGH	STOREST AAN III A	Air Temperature
Job No \$ 30257	STREET GARLAND	Personnel MARIO STERNAD
300 No 3 3023 7		COMMENTE MAND STEVENAD
	· · · · · · · · · · · · · · · · · · ·	
WELL INFORMATION		
WELL INFORMATION		
Casing, Dia.:	Intake,	Maluma of 28 and 48 Casta It as a
( ) Stainless Steel ( ) Steel	Diameter:	Volume of 2" and 4" Casing in Gallons
( ) SIEEI ( ) PVC	• •	• )
() Tellon	( ) Steel	}
	( ) PVC	40
() Other Water Level: 10.77 FEET	( ) Tellon	Gais 35
Water Level: 10: 17 FEET	( ) Other	»
Total Depth: 22.93 FEET		
Measuring Device	Well Clean to Bottom	25 - A. Mar Compd
() M-Scope	() yes, () no	**
Momer Elec. Depth	Well in Good Condition	14.
Volume of Water in	() yes, () no	10
Casing 7 GALLONS Datum:	Surface Protection:	* Wat Going
( ) Top of Surf. Casing	Clean ( ) yes. ( ) no Condition	
(YTop of Well Casing	Condition	0 1/2
( ) Other	Lock ( ) yes, ( ) no	0 10 20 40 50 60
( ) Ourer	LOCK   ) yes, [ ) no	Amount of Water in West (Paul)
Purging Data:		
Method:	Tubing/rope	Purging Equipment
( ) Bladder Pump	( ) Tellon	( ) Dedicated
( Bailer	( ) Polypropylene	( ) Prepared Off-Site
( ) Submersible Pump	( Nylon	
( ) Peristaltic Pump	( ) Other	as we are
( ) Other	Pumping Rate	Time Series Data V V
Materials:	Elapsed Time 40 M	Time Series Data V V V  Measurement 1 2 3 4
Pump/Bailer	Volume Pumped 750	ALLONS Well Volumes 1,25 2.5 3:75
( ) Tellon	Well Evacuated ( ) yes. (	)no Water Temp. 65.4 65.8 64.8
( ) Stainless Steel	Number of Well Volumes	
(Y PVC	Purged 3.75	Other E-C 1100 1150 1130
( ) Other		
•		
Samuel Control		
Sampling Data: Method:	/ ) 75455	
	( ) Tellon	Physical & Chemical Data:
( ) Bladder Pump (Y Bailer	( ) Polypropylene	Appearance:
• • •	(•) Nylon ( ) Other	( ) Clear
( ) Şubmersible Pump ( ) Peristaltic Pump		(Y Turbid
() Other	Sampling Equipme	( ) Color
Materials: Pump/Bailer)	() Prepared Off-Si	( ) Immiscible Product
() Tellon	( ) Field Cleaned	( ) Other
( ) Stainless Steel	Metals Sample Fiel	Filed Condition of Sample
( ) PVC	Metals Sample Fiel ( ) Yes	
150 mar Pohya Mylene		ρΗ
Materials: Tubing/rope	Method	Other 1:10 PM 8/19/93
	ina	
This sample was collected and	handled in accordance wit	th standard regulatory and corporate procedures

# Groundwater Monitor Well Sampling & Field Data Sheet

Location No. A-5		Date: 8/19]	73 Time: 9:35 A.M.
Sample No. A-5		Weather:	DEPTH. TO-WATER
Sample No		Conditions	•
Project/Client: JOHN (	AUNISTRA	Air Temperatu	
Location: 750 HIGH ST	RECT DAKLAND, CA		MARIO STERNAD
Job No. \$30257		. 0.00	177(3,0)
WELL INFORMATION	Intake,	•	
Casing, Dia.: Z INCH	Diameter:	Volu	me of 2" and 4" Casing in Gallons
( ) Stainless Steel	( ) Stainless Steel	مد	
() Steel (YPVC	( ) Steel	• > 🗸	
( ) Tellon	() PVC	••	
( ) Other	() Tellon	Gais as	
When I aud! O AS FEET	( ) Other	1	
Total Depth: 24.69 FT	Well Conditions:	20	at West Source
Measuring Device	Well Clean to Bottom	₹5 -	4 WIR CORPUS
() M-Scope	() yes, () no	20 ↓	
17 Other Elec. Depth	Well in Good Condition	[ دا	
Volume of Water in	( ) yes. ( ) no	,,	municipal —
Casing 2.5 GAL	Surface Protection:	1	?" Wed Coans
Datum:	Clean ( ) yes. ( ) no	'	
( ) Top of Surf. Casing	Condition	<u></u> ه	
( Top of Well Casing		0	10 20 20 40 30 40
( ) Other	Lock ( ) yes, ( ) no		Amount of Willer in West (Feet)
Purging Data:		D	
Method:	Tubing/rope		ging Equipment ) Dedicated
( ) Bladder Pump	() Tellon		
( Bailer	( ) Polypropylene		ال در بمناسح
( ) Submersible Pump	( ) Nylon	(*)	le Series Data N N 12
( ) Peristaltic Pump	( ) Other Pumping Rate		e Series Data 10 1 1
( ) Other	Elapsed Time 40 M		easurement 1 2 3 4
Materials:	Volume Pumped 8 G	W Stennar	ell Volumes 1 2 3+
Pump/Bailer	Well Evacuated ( ) yes	<del></del>	ater Temp. 69.3 673 66.0
( ) Tellon	Number of Well Volume	. , ,	
( ) Stainless Steel ( PVC	Purged 3+		ner E-C 1640 1600 1580
( ) Other	, 0.945 <u></u>		
( ) Other			<del></del>
Sampling Data:			
Method:	( ) Tellon		Physical & Chemical Data:
( ) Bladder Pump	( ) Polypropyler	1€	Appearance:
( Bailer	Mylon		( ) Clear
( ) Şubmersible Pump	( ) Other		( ) Turbid
( ) Peristaltic Pump	Sampling Equip	ment	( ) Color
( ) Other	(\nabla Dedicated	f Sira	( ) Immiscible Product
Materials: Pump/Bailer	( ) Prepared Off		( ) Other
( ) Tellon	( ) Field Cleans		Filed Condition of Sample
( ) Stainless Steel		field Filtered N/A	· · · · · · · · · · · · · · · · · · ·
()PVC	( ) Yes		pH picta?
Womer Polyethylene	() No		Other 12:15 PM \$ 19/93
Materials: Tubing/rope	Method		
		<del></del>	

Certification: Vano Yum.

This sample was collected and handled in accordance with standard regulatory and corporate procedures

### Groundwater Monitor Well Sampling & Field Data Sheet

Location No. A-I		Date: 8/19/93 Time: 9:30 A.M.
	7	Weather: DEPTH-TO-WATER'TIME
Sample No. <u>A-1-89</u>	a distance of C	Conditions FAIR
Project/Client: JOHN I	SANNISTEIS	Air Temperature
Location: 750 HIGH S	MEET DAKLAND	Personnel MARIO STERNAD
JOB NO. 530257		reisonner MARIO STERNATO
<del></del> -		
WELL INFORMATION		
Casing, Dia.: 7- INCH	intake,	
( ) Stainless Steel	Diameter:	Volume of 2" and 4" Casing in Gallons
( ) Steel	( ) Stainless Steel	30
( PVC	( ) Steel	*\
( ) Teflon	( ) PVC	••↓
() Other	( ) Tellon	Gals . 35
Water Level: 7-47 FEET	( ) Other	
Total Depth: 22.64 FT	. Well Conditions:	30
Measuring Device	Well Clean to Bottom	13
() M-Scope	(Vyes, ( ) no	<b>70</b>
( Other Elec. Depth	Well in Good Condition	. 19
Volume of Water in	() yes. (Mno Broken	HEAD !
Casing Z.5 GALLONS	Surface Protection:	10 . Was Counc
Datum:	Clean ( ) yes. (4) no	1
( ) Top of Surf. Casing	Condition ABSENT	0
Top of Well Casing		B 10 20 30 40 50 WO
( ) Other	Lock ( ) yes, () no	Amount of Water in West (Feet)
Purging Data:		
Method:	Tubing/rope	Purging Equipment
( ) Bladder Pump	( ) Tellon	( ) Dedicated
<b>⊘</b> Bailer	( ) Polypropylene	( ) Prepared Off-Site
( ) Submersible Pump	(J) Nylon	(A Field Cleaned
( ) Peristaltic Pumo	( ) Other	Time Series Data W102 10:15 10:25
( ) Other	Pumping Rate	Time Series Data W102 10:15 10:25
Materials:	Elapsed Time 60 MI	NOTES Measurement 1 2 3 4 5 GAL Well Volumes 0.5 2 3
Pump/Bailer	Volume Pumped	
( ) Teflon	Well Evacuated ( ) yes.	()no Water Temp. 71.0 69.1 67.9
( ) Stainless Steel	Number of Well Volume	s pH <u>6.71 6.98 7.11</u>
( PVC	Purged 3	Other Elec. 1240 1050 1000
( ) Other		<u>Conduct Wity</u>
Sampling Data:		
Method:	( ) Tellon	Physical & Chemical Data:
( ) Bladder Pump	( ) Polypropylen	
(A) Bailer	(-XNylon	() Clear
( ) Submersible Pump	( ) Other	
( ) Peristaltic Pump	Sampling Equipr	ment () Color
( ) Other	₩ Dedicated	( ) Immiscible Product
Materials: Pump/Bailer	( ) Prepared Off	-Site ( ) Other
() Tellon	( ) Field Cleaned	Filed Condition of Sample
( ) Stainless Steel	Metals Sample F	ield Filtered N/A Temp
() PVC	( ) Yes	ьн ————
Moiner Polyethile	<u>~~</u> ()No	Other 10:35 A.M. 8/19/93
Materials: Tubing/rope	· Method	
Conitionion: Many	X te a hard	

This sample was collected and handled in accordance with standard regulatory and corporate procedures

### **Environmental Consultants**

### Groundwater Monitor Well Sampling & Field Data Sheet

Location No. B-Z Sample No. B-Z Project/Client: JOHN ( Location: 750 HGH			AIR	PEPTH TO-WATE
Job No. 530257		Personnel		
WELL INFORMATION  Casing, Dia.: 2 INCH () Stainless Steel () Steel (MPVC () Tetlon () Other  Water Level: 6.79  Total Depth: 13.72  Measuring Device () M-Scope (MOther Elec Depth Volume of Water in Casing 1.1 GALLONS Datum:	Intake. Diameter: ( ) Stainless Steel ( ) PVC ( ) Tellon ( ) Other Well Conditions: Well Clean to Bottom ( Yyes, ( ) no Well in Good Condition ( ) yes, ( Yno Broken ( Surface Protection: Clean ( ) yes, ( ) no	Gals 35 30 23	e of 2" and 4" (	Casing in Gallons
( ) Top of Surf. Casing ( ) Top of Well Casing ( ) Other	Lock ( ) yes, ( Yno	0 10	) 20 20 Amount of trator in	40 \$0 80 West (Feet)
Purging Data:				
Method: ( ) Bladder Pump ( ) Bailer ( ) Submersible Pump ( ) Peristaltic Pumo ( ) Other Materials: Pump/Bailer ( ) Teflon ( ) Stainless Steel ( ) PVC ( ) Other	Tubing/rope ( ) Tellon ( ) Polypropylene ( Mylon ( ) Other Pumping Rate Elapsed Time 40 M Volume Pumped 5,5 Well Evacuated ( ) yes. Number of Well Volume Purged 5	Time !  AINUTES Meas  GAL Well  ( ) no Wate  s pH  Other	7.06	2 3 4 3 5 67.6 67.1 7.11 7.11 1030 980
Sampling Data:	( ) Tellon		Physical & Cl	haminal Data
Method: ( ) Bladder Pump ( ) Bailer ( ) Submersible Pump ( ) Peristaltic Pump ( ) Other  Materials: Pump/Bailer) ( ) Tellon ( ) Stainless Steel ( ) PVC ( ) Other Polyelylene Materials: Tubing/rope)	( ) Tenon ( ) Polypropylend ( ) Other Sampling Equipm ( ) Dedicated ( ) Prepared Off- ( ) Field Cleaned Metals Sample Fi ( ) Yes ( ) No - Method	nent Site	Appearance: ( ) Clear ( y Turbid ( ) Color ( ) Immiscible ( ) Other Filed Condition Temp pH Other	n of Sample
Centication: Pano	Stervas			
This sample was collected at	nd handled in accordance v	with standard requ	itatory and corpor	rate procedure\$

## CERTIFIED \$30257/11968B

### APPENDIX C

Work Plan Dated August 16, 1993

August 16, 1993

Ms. Madhulla Logan Alameda County Environmental Health Services Hazardous Materials and Storage Tanks Division 80 Swan Way, Room 200 Oakland, CA 94621

Subject:

Ground-Water Sampling and Testing at 750 High Street, Oakland, California for the Presence of Polychlorinated Biphenyls (PCBs) (CERTIFIED/Earth Metrics file reference

S30257/11968B)

Dear Ms. Logan:

Enclosed please find the Work Plan to sample and analyze ground water collected from six (6) existing wells for Polychlorinated Biphenyls (PCBs) at the above-mentioned site. Destruction and grouting of monitoring wells on-site to grade surface will not occur the same day as sampling, but will be performed pending reportage of laboratory results to your office.

Please call me to let me know if you will attend the well sampling proposed to begin on August 17, 1993.

Sincerely,

Marc Papineau

Manager, Physical Sciences Department

### LOCATION AND SITE DESCRIPTION

The subject site is located at 750 High Street (formerly 744 and 752 High Street), Oakland, California, and is presently occupied by a warehouse building and asphalt-paved lumber and materials storage areas. Six monitoring wells exist throughout the paved area, made accessible to sampling personnel by the recent resurvey and uncovering of asphalt pavement.

The subject property is immediately adjacent to the Southern Pacific Transportation Company railroad tracks to the east, a building supply business to the west, and High Street to the north.

#### **BACKGROUND**

The subject site was previously used as a metal salvage yard. Soil was scraped and off-hauled for proper disposal in June 1990 to remove PCB-affected soil. Six monitoring wells were installed in 1989. The six on-site monitoring wells were sampled and tested for PCBs and all except C-6 were found to contain no detectable amounts of PCB in 1990. Well C-6 was found to contain 0.59 parts per billion (ppb) PCBs.

### PURPOSE AND SCOPE OF WORK

The purpose of this ground-water sampling is to perform final sampling of the six wells and then to perform will closure of the six wells. The presence of low concentration Polychlorinated Biphenyls (PCBs) in ground water in well C-6 is believed to be an artifact of drilling the wells through surface contamination. Pending determination and reportage of final results of PCBs in ground water, monitoring wells will be grouted to surface. Ground-water sampling described herein will be accomplished from six monitoring wells on-site.

#### **MOBILIZATION**

A representative of CERTIFIED/Earth Metrics will be on-site during one day, the morning of Tuesday, August 17, 1993, or at the next date available date convenient to Alameda County Hazardous Materials Unit. After adequately addressing site safety concerns, purging and sampling wells will commence at each of six separate monitoring well locations. All purge water will be collected in one labeled 55-gallon drum on-site, for future safe disposal.

Site safety equipment will include: safety cones to mark the work zone boundary, gloves, boots, and safety glasses.

### **GROUND-WATER SAMPLING**

Field investigation procedures are summarized in Attachment 1.

Depth-of-water to top of casing or top of asphalt in all monitoring well locations will be accomplished prior to sampling using an electronic probe. Approximately three well volumes (approximately 5.0 gallons) will be purged from each monitoring well using a cleaned PVC bailer. Purged ground water will be placed into a labeled 55-gallon barrel for future disposal.

Ground-water samples from each well will then be taken by filling two amber liter bottles using a dedicated disposable bailer. Caution will be taken to wash all equipment with TSP and distilled water before entering another well. The well sampling order will be MW1 - MW6. All ground-water samples will be cooled with ice in a cooler and transported to a California Certified laboratory for analysis. A Chain-of-Custody form will be filed out in the field and accompany samples to the laboratory.

#### **GROUND-WATER ANALYSIS**

All ground-water samples taken will be tested for Polychlorinated Biphenyls (PCBs) (EPA Method 8080) on a seven workday turnaround plus additional sample for quality control.

## ATTACHMENT 1 CERTIFIED FIELD INVESTIGATION PROCEDURES

### **GROUND-WATER SAMPLE COLLECTION PROCEDURE**

Prior to sampling, the depth-to water is measured to within one-hundredth of a foot to grade surface in each monitoring well using an electronic probe. Each screened boring is purged of at least three well volumes or until temperature, pH, and conductivity remains relatively constant (within 10%). Any floating product, sheen, turbidity or unusual odor is recorded. Reusable metal, PVC or teflon bailers are cleaned prior to bailing purge water.

Monitoring wells are allowed to settle for 10-20 minutes before a dedicated polyethylene disposable bailer is placed carefully below water surface to extract a ground-water sample. A ground-water sample will then be taken from each well location, placed into an appropriate container, labeled, and placed in iced storage, for transport to a State of California Certified laboratory to undergo the required testing for Polychlorinated Biphenyls (PCBs) (EPA Method 8080). A Chain-of-Custody record for all samples will be initiated by the field geologist and will be included in the final report.

All sampling data, direct measurements, a map of the site location of drums, any noticeable odor, sheen and other visual observations made at the time of sampling are recorded in a field notebook by CERTIFIED/Earth Metrics personnel. Well purge water is stored in a labeled drum on-site until results are computed to determine if safe removal and disposal is needed.

## CERTIFIED \$30257/11968B

### APPENDIX D

Letter Dated June 16, 1992 (Revised May 18, 1993) to Alameda County Health Agency