

AUG 30 2001

QUARTERLY GROUND WATER
SAMPLING AND ANALYSIS

2075 WILLIAMS STREET
SAN LEANDRO
CALIFORNIA

FOR

BLUE WATER SERVICES, INC.
OAKLAND
CALIFORNIA



JULY 31, 2001
99-ENV187G



AUG 30 2001

July 31, 2001
99-ENV187G

Mr. Chris Kirschenheuter
Blue Water Services, Inc.
727 77th Avenue
Oakland, California 94621

Subject: Quarterly Ground Water Sampling and Analysis Report
2075 Williams Street
San Leandro, California 94577

Dear Mr. Kirschenheuter:

This report describes the Quarterly Ground Water Sampling and Analysis at the site located at 2075 Williams Street, San Leandro, California.

One of the four copies is for your file. The other three copies should be forwarded to Roger Brewer (Regional Water Quality Control Board), Eva Chu (Alameda County Environmental Health) and Michael Bakaldin (City of San Leandro). Their addresses can be found on the site contacts page in the report.

Should you have any questions regarding this report, please contact the undersigned.

Sincerely,

Basics Environmental

A handwritten signature in black ink, appearing to read "D. Tom", written over the printed name.

Donavan G. Tom, M.B.A., R.E.A.
Principal Consultant

GW.LTR

SITE CONTACTS

Site Name: Former Freight Terminals Facility

Site Address: 2075 Williams Street
San Leandro, California 94577

Owner: Chris Kirschenheuter
Bluewater Services Inc.
727 77th Avenue
Oakland, California 94621
(800) 536-6702

Owner's Consultant: Basics Environmental
116 Glorietta Boulevard
Orinda, California 94563
(925) 258-9099

Project Manager: Donovan G. Tom

Former Owner: Michael D. Kevitch
Watkins Motor Lines, Inc.
1144 W. Griffin Road
Lakeland, Florida 33804-5002

Former Owner's Consultant: Atlantic Geosciences, Inc.
1300 S. Rossiter Terrace
Watkinsville, Georgia 30677
(706) 310-0319

Regulatory Oversight: Roger Brewer
Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612
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Eva Chu
Alameda County
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1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502
(510) 567-6770

Michael Bakaldin
City of San Leandro
San Leandro Environmental Services
835 East 14th Street, Suite 200
San Leandro, California 94577
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TABLE OF CONTENTS

PROFESSIONAL CERTIFICATION

1.0	INTRODUCTION.....	1-1
1.1	Purpose of Investigation.....	1-1
1.2	Background.....	1-1
1.3	Site Geology and Hydrogeology.....	1-3
2.0	GROUND WATER SAMPLING.....	2-1
2.1	Field Activities.....	2-1
3.0	CHEMICAL ANALYSES AND RESULTS.....	3-1
3.1	Chemical Analyses.....	3-1
3.2	Analytical Results.....	3-1
	Table 1: Ground Water Monitoring Data.....	3-2
4.0	FINDINGS.....	4-1
4.1	Discussion	4-1

List of Drawings

Drawing 1: Site Location

Drawing 2: Site Plan Showing Monitoring Well Location

Drawing 3: Ground Water Sample Analytical Results

Appendices

APPENDIX A: Field Documents

APPENDIX B: Laboratory Analytical Results and Chain of Custody

PROFESSIONAL CERTIFICATION

REPORT
QUARTERLY GROUND WATER
SAMPLING AND ANALYSIS
BLUEWATER SERVICES, INC.
2075 WILLIAMS STREET
SAN LEANDRO, CALIFORNIA
99-ENV187G
JULY 31, 2001

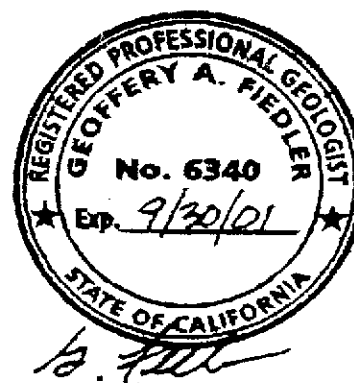
This report has been prepared by the staff of Basics Environmental (Basics) under the professional supervision of the Principal Consultant whose seal and signature appears hereon. The findings, interpretations of data, recommendations, specifications or professional opinions are presented within the limits prescribed by available information at the time the report was prepared, in accordance with generally accepted professional engineering and geologic practice and within the requirements by the Client. There is no other warranty, either expressed or implied.

The data and findings of this report are based on the data and information obtained from the agreed upon scope of work between Basics and the Client. Because contamination is not necessarily evenly distributed across the property's soils and ground water, it can easily remain undetected. Additional scope of services (at greater cost) may or may not disclose information which may significantly modify the findings of this report. We accept no liability on completeness or accuracy of the information presented and or provided to us, or any conclusions and decisions which may be made by the Client or others regarding the subject site.

This report was prepared solely for the benefit of Basic's Client. Basics consents to the release of this report to third parties involved in the evaluation of the property for which the report was prepared, including without limitation, lenders, title companies, public institutions, attorneys, and other consultants. However, any use of or reliance upon this report shall be solely at the risk of such party and without legal recourse against Basics, or its subcontractors, affiliates, or their respective employees, officers, or directors, regardless of whether the action in which recovery of damage is sought is based upon contract, tort (including the sole, concurrent or other negligence and strict liability of Basics), statute or otherwise. This report shall not be used or relied upon by a party that does not agree to be bound by the above statements.



Donovan G. Tom, M.B.A., R.E.A. II #20039
Principal Consultant



Geoffery A. Fiedler, R.G. #6340
Associate Geologist

1.0 INTRODUCTION

1.1 Purpose of Investigation

Basics Environmental (Basics) has performed this Ground Water Well Monitoring for Blue Water Services, Inc. pursuant to our verbal of engagement discussed on June 20, 2001. The "subject site" is at 2075 Williams Street, San Leandro, California (See Drawing 1).

1.2 Background

On June 23 1995, a Phase I Environmental Site Assessment was performed by Blymer Engineers for Freight Terminals, Inc. Potential environmental concerns were indicated at the property located at 2075 Williams Street in San Leandro, CA. As a result, Blymer Engineers performed a Subsurface Investigation which included the drilling of four soil borings (B-1 through B-4) by geoprobe and the collection of both soil and ground water samples. Ground water was encountered at an approximate depth of 16 feet in each of the borings. Two of the ground water samples were selected for analytical testing. Both ground water samples detected the presence of Trichloroethylene (TCE) and Tetrachloroethylene (PCE). The concentrations were elevated along the eastern boundary of the site which is presumed to be the up gradient portion of the site. The source of the TCE and PCE was not known but was thought to be from an off-site source.

On February 5, 1997 Atlantic Geoscience, Inc. (AGI) performed an preliminary investigation which included the drilling of six additional soil borings (SB-1 through SB-6) by geoprobe and the collection of both soil and ground water samples to further evaluate the possible source and extent of contamination at the site. Five of the six borings were converted to ground water monitoring wells (MW-1, MW-2, MW-3, MW-4 and MW-6). The investigation determined that the direction of ground water flow was to the west, towards the San Francisco Bay at a depth of approximately 15 feet. The plume was found to extend beyond the property boundaries in both the up-gradient and down gradient directions. Soils were analyzed and found to contain low concentrations of both PCE and TCE with the most elevated concentrations detected up gradient from the site property. However, the most elevated PCE and TCE concentrations in the ground water were detected near the center of the site. The report concluded that the origin of the source for the contaminants was unknown and that a more thorough investigation would be required.

AGI submitted a second work plan to the Regional Water Quality Control Board (RWQCB). This plan included a review of data from the adjacent PRINTPAC property, located down gradient from the site. The PRINTPAC data indicated that the extent of the plume was near the center of their property and that the ground water gradient was also generally to the west. In addition, the PRTNTPAC data indicated that the ground water velocity was approximately 1 ft/day. AGI then submitted a revised work plan to further evaluate the horizontal and vertical extent of the contaminant plume. This report is a summary of the second investigation.

On November 30, 1998, AGI performed additional investigation under an approved work plan submitted to the RWQCB. This investigation included the drilling of four additional geoprobe wells and the collection of both soil and ground water samples at various depths. Two borings (SB-11 and SB-13) were drilled on the adjacent up gradient property (Crane Valve Co.) with two borings (SB-10 and SB-12) drilled on the Freight Terminals property. One of the four borings was converted to a ground water monitoring well (MW-10). Prior to drilling, the drilling materials were cleaned using an Alconox solution. As the drilling advanced, soil samples were collected at 5', 10', and 15' intervals by use of a previously cleaned tube sampler and described by a site geologist. Borings SB-10 and SB-11 were drilled to an approximate depth of 50 feet while borings B-12 and B-13 were drilled to an approximate depth of 18 feet. Water samples were collected from each of the borings at a depth of 18 feet. In addition a water sample from borings B-12 and B-13 were also collected at depths of 33 feet and 50 feet. After drilling operations, the borings were sealed with bentonite and a concrete plug was place at the surface. In addition to the drilling program, AGI also collected ground water samples from the existing wells MW-3, MW-4, and MW-6 to evaluate the contaminant plume shape and change over time.

In June and September 2000, AGI implemented an interim remedial action plan under an approved work plan submitted to the RWQCB. This plan included the drilling of seven additional geoprobe wells (SB-3a, SB-10a, SB-14, SB-15, SB-15a, SB-16 and SB-16a) and the collection of both soil and ground water samples at various depths. All of the seven of the borings were converted to ground water monitoring wells (MW-3a, MW-10a, MW-14, MW-15, MW-15a, MW-16 and MW-16a). MW-3a, MW-10a, MW-15a and MW-16a are 1-inch wells specifically installed to address the impact to ground water within the deeper sand zone at the subject site. In addition, 19 passive vapor extraction wells were installed in a perimeter surrounding the terminal building

where the bulk of the contaminants appear to be located. The passive wells were constructed using slotted 2-inch PVC pipe from a depth of 41 feet to 42 feet with 31 feet the most common. However, in vapor well/monitoring MW-15 the sand was encountered at a depth of 42 to 59 feet. As such the vapor well was extended to a depth of 60 feet in this location. A 1/4-inch vapor vent was installed to allow the vapors to discharge.

In January 2000, Basics Environmental was retained by the new owner, Blue Water Services, Inc., to continue the quarterly ground water monitoring program for onsite wells MW-3, MW-3A, MW-6, MW-10, MW-10A, MW-14, MW-15, MW-15A, MW-16 and MW-16A

1.3 Site Geology and Hydrogeology

The site is located San Francisco Bay region approximately 3000 ft. east of San Francisco Bay. The area is characterized by a flat lying terrain with a relief on the order of 50 feet (elev. 0 + to elev. 50 ±). The site is at approximate elev. 20. The land slopes to the south and southwest towards San Francisco Bay.

The San Francisco Bay area is a northwest-southeast trending region within the Coast Range Province. Rocks within the region range from Jurassic aged sedimentary, metamorphic, and plutonic basement rocks to Holocene alluvium. The geologic structure of the region is controlled by several fault systems. The San Andreas system is located on the western side of the bay while the Hayward system is on the east side of the bay. These faults are a result of the tectonic forces that uplifted the Coast Range and dropped the section now covered by San Francisco Bay and associated alluvium deposits.

The site is located on Quaternary Alluvium. This Alluvium includes the Temescal Formation overlying the San Antonio Formation. These formations generally consist of unconsolidated gravel, sand and clay. Soils at the site include the Danville silty clay loam. Ground water in the area is a part of the San Leandro Cone Subarea. The direction of ground water flow is usually to the west or southwest towards San Francisco Bay under unconfined conditions.

The materials encountered in the borings varied from location to location. In general the materials included dark gray, dark brown and medium brown slightly silty clay to approximately 10 feet. A shallow sand lense was encountered in MW-4 from 10 to 19.5 feet; MW-6, MW-10, and MW-11 from 27 to 28 feet; MW-13 from the surface to a depth of at least 15 feet; MW-15 from

10 to 59 feet. A deeper sand lense was encountered MW-3a from 50 to 56 feet; MW-10a from 28 to 42 feet; MW-6a from 30-42 feet;. Clay was then encountered in the borings.

Based on the latest ground water monitoring event (June 2001), ground water elevations ranged from 8.68 to 9.74 feet above mean sea level. The latest ground water elevation data suggest that there are two onsite gradients influencing the subject site. Based on the contours generated ground water flow appears to flow in a south westerly direction on the north portion of the subject site and appears to flow in a westerly direction on the south portion of the subject site (See Drawing 4).

2.0 GROUND WATER SAMPLING

2.1 Field Activities

On June 27, 2001, the following scope of work was completed.

- The ground water in wells MW-3, MW-3A, MW-6, MW-10, MW-10A, MW-14, MW-15, MW-15A, MW-16 and MW-16A was monitored for floating product, and the depth to water in the well was measured with an optical interface probe and recorded on well gauging data sheets, which are included in Appendix A.
- Prior to sampling, the wells were purged using PVC pipes connected to a truck mounted vacuum pump. At least three casing volumes were extracted from each well. Temperature, pH, conductivity, and visual observations of the ground water for the well was recorded on a well monitoring data sheet, which is included in Appendix A.
- A ground water sample was collected from each of the wells and submitted to McCampbell Analytical, a California-certified laboratory, for petroleum hydrocarbon analysis to quarterly reporting requirements.

The ground water samples were collected using disposable bailers. The water samples were transferred from the bailers into appropriate pre-preserved containers supplied by the analytical laboratory. The samples were labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples were then placed in a cooler, maintained at 4° C for transport to the laboratory. Once collected in the field, the samples were maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and sample collector's name. The chain of custody was signed and dated (including time of transfer) by each person who received or surrendered the sample, beginning with the field personnel and ending with the laboratory personnel.

3.0 CHEMICAL ANALYSES AND RESULTS

3.1 Chemical Analyses

The ground water sample taken from the monitoring well was analyzed for the following:

- Volatile Halocarbons (California EPA Method 8010).

3.2 Analytical Results

Results of chemical analyses on ground water sample collected on June 27, 2001 are presented in **boldface** type in Table 1, along with previous results. Certified laboratory reports are presented in Appendix B, including chain-of-custody record data.

TABLE 1 GROUNDWATER MONITORING DATA
2075 WILLIAMS STREET, SAN LEANDRO, CALIFORNIA, 2001

Well No.	Screen (ft)	Date	Casing		Depth to Groundwater		Concentration ($\mu\text{g/L}$)	
			Elevation (ft msl)		Water (ft)	Elevation (ft msl)	Tetrachloroethene (PCE)	Trichloroethene (TCE)
B-1	-	Feb-97	NM		12.19	-	ND	ND
B-2	-	Feb-97	NM		12.16	-	ND	ND
MW-3	15-30	Feb-97	NM		15.08	-	5,400	58
		Nov-98	NM		-	-	2,000	110
		May-00	NM		-	-	1,000	160
		Sep-00	NM		25	-	ND	ND
		Jan-01	NM		16.36	-	880	120
		Mar-01		26.17	15.55	10.62	990	90
		Jun-01		26.17	16.43	9.74	550	100
MW-3A	7-60	Sep-00	NM		60	-	15	ND
		Jan-01	NM		15.98	-	ND	ND
		Mar-01		25.77	15.08	10.69	ND	ND
		Jun-01		25.77	16.36	9.41	ND	ND
MW-4	13-28	Feb-97	NM		12.69	-	1,900	130
		Nov-98	NM		-	-	510	180
		Jan-01	NM		-	-	NS	NS
MW-6	13-27	Feb-97	NM		11.86	-	65	10
		Nov-98	NM		-	-	53	13
		May-00	NM		-	-	44	18
		Sep-00	NM		25	-	38	19
		Jan-01	NM		13.53	-	35	20
		Mar-01		22.05	12.33	9.72	550	17
		Jun-01		22.05	13.37	8.68	59	23
B-10		Nov-98	NM		33	-	4,600	120
MW-10	10-25	May-00	NM		-	-	7,300	590
		Sep-00	NM		25	-	11,000	ND
		Jan-01	NM		15.29	-	4,100	520
		Mar-01		23.86	14.52	9.17	8,900	610
		Jun-01		23.86	15.00	8.86	3,100	700

TABLE 1 (CONT.) GROUNDWATER MONITORING DATA
2075 WILLIAMS STREET, SAN LEANDRO, CALIFORNIA, 2001

Well No.	Screen (ft)	Date	Casing Depth to Groundwater			Concentration ($\mu\text{g/L}$)	
			Elevation (ft msl)	Water (ft)	Elevation (ft msl)	Tetrachloroethene (PCE)	Trichloroethene (TCE)
B-10A		Nov-98	NM	50	-	150	ND
MW-10A	7-42	Sep-00	NM	40	-	390	ND
		Jan-01	NM	15.47	-	830	110
		Mar-01	23.86	14.69	9.17	3,500	210
		Jun-01	23.86	14.85	9.01	400	21
B-11	-	Nov-98	NM	33	-	200	49
B-12	-	Nov-98	NM	16	-	ND	90
B-13	-	Nov-98	NM	14.7	-	240	ND
MW-14	10-25	May-00	NM	16	-	36	75
		Sep-00	NM	50	-	71	118
		Jan-01	NM	15.61	-	48	74
		Mar-01	24.80	14.81	9.99	32	55
		Jun-01	24.80	15.75	9.05	56	71
SB-15	7-60	Feb-97	NM	16	-	1,000	160
MW-15		Sep-00	NM	60	-	130	9.4
		Jan-01	NM	16.47	-	310	38
		Mar-01	25.65	15.59	10.06	200	16
		Jun-01	25.65	16.61	9.04	59	5.3
MW-15A	7-36	Sep-00	NM	40	-	1,000	160
		Jan-01	NM	16.69	-	410	69
		Mar-01	25.62	15.82	9.80	620	89
		Jun-01	25.62	16.89	8.73	72	36
MW-16	10-25	May-00	NM	16	-	10	ND
		Sep-00	NM	25	-	90	ND
		Jan-01	NM	13.91	-	38	ND
		Mar-01	22.80	13.08	9.72	48	ND
		Jun-01	22.80	14.09	8.71	37	ND
MW-16A	7-38	Sep-00	NM	40	-	100	ND
		Jan-01	NM	13.82	-	3,600	160
		Mar-01	22.80	13.07	9.73	240	14
		Jun-01	22.80	14.09	8.71	1,300	62

Trip	Feb-97	<0.5	<0.5
Blank	Nov-98	<0.5	<0.5

B-# Grab water samples from boring.
MW-# Ground water sample from monitoring well.
ND Analyte NOT DETECTED at or above the reporting limit (<0.5)
NS Not sampled.
NM Not measured.
-- Not analyzed.
 $\mu\text{g/L}$ Micrograms per liter.
ft msl Feet relative to mean sea level.

4.0 FINDINGS

4.1 Discussion

According to AGI, the source of the PCE contamination appears to be from a pre-1977 metal plating operation conducted within a former building located at the subject site. In addition, AGI believes the plume appears to have sunk by gravity downward into a coarse sand horizon.

Source Identification - Based on the soil test borings within the previous investigations, no substantial impact to the shallow subsurface soil has been identified. However, analytical results from shallow surface soil samples collected within the vicinity of MW-4, MW-10 and MW-13 indicate the highest concentrations of PCE (0.420 mg/kg, 0.690 mg/kg and 0.400 mg/kg, respectively). Based on this data, no significant amount of residual source material appear to exist within the vadose zone at the subject site. These levels may have decreased over time due to natural degradation or have sunk through the subsurface.

According to AGI, MW-10 may represent the original area of release due to the significant concentration of PCE (300 mg/kg) found within the soil at 15 feet below ground surface. However, MW-10 soil concentrations between 1 and 10 feet below ground surface were similar to those concentrations detected in the vicinity of MW-4 and MW-13. Due to the saturated zone fluctuating from 12 to 15 feet below ground surface, the elevated levels of PCE within the soil sample collected within MW-10 at 15 feet below ground surface may be due to the influence of the PCE ground water plume.

This reasoning suggests that the original area of release may be a combination of impacts to the subsurface within the vicinity of MW-4, MW-10 and MW-13. MW-4 and MW-13 are located within the adjacent up gradient site (Crane Valve Services). Since comparable levels of PCE have been discovered within the shallow subsurface soil samples collected within the adjacent up gradient site suggest a high probability that the original area of release may be a combination of impacts to the subsurface from the subject site and Crane Valve Services. As such, Crane Valve Services may also be a responsible party liable for ground water remediation.

According to AGI, the shape of the plume suggests that the ground water flow is not a large driving force to move the contaminant plume. In addition, AGI believes the plume appears to radiating outward primarily by dispersion. Based on the documents reviewed, significant levels of

PCE ($>200\mu\text{g/L}$) have been detected within MW-3, MW-4, MW-10, MW-11, MW-13, W-3, W-5, and W-6. The highest levels of PCE ($>2000\mu\text{g/L}$) were detected in MW-3, MW-10 and W-5.

W-3, W-5 and W-6 are located on the adjacent down gradient site (James River Site). Additional breakdown components of PCE (TCE, DCA and VC) were also detected within the down gradient wells (W-3, W-5 and W-6), however, analytical results from soil samples collected at the adjacent down gradient James River site have not detected any levels of PCE.

At the time of these reports 1995-1998, the migration of ground water impacted with PCE and its derivatives were attributed to up gradient sources (1964 Williams Street and Caterpillar Tractor), however, recent ground water data suggests off-site migration of the PCE plume is generated from the vicinity of MW-4, MW-10 and MW-13. In addition, this data suggests the plume is influenced by the ground water flow.

The most recent ground water data collected (June 2001) has shown significant levels of PCE ($>200\mu\text{g/L}$) have been detected within MW-3, MW-10, MW-10a and MW-16a. The highest level of PCE ($>1,000\mu\text{g/L}$) was detected only in MW-16a ($1,300\mu\text{g/L}$). Recent off site ground water data was not available, however, as per the request of the Regional Water Quality Control Board, the March 2001 ground water monitoring event was conducted at the same time as the ground water monitoring at the adjacent James River Corporation site (down gradient position).

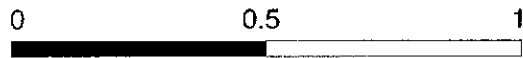
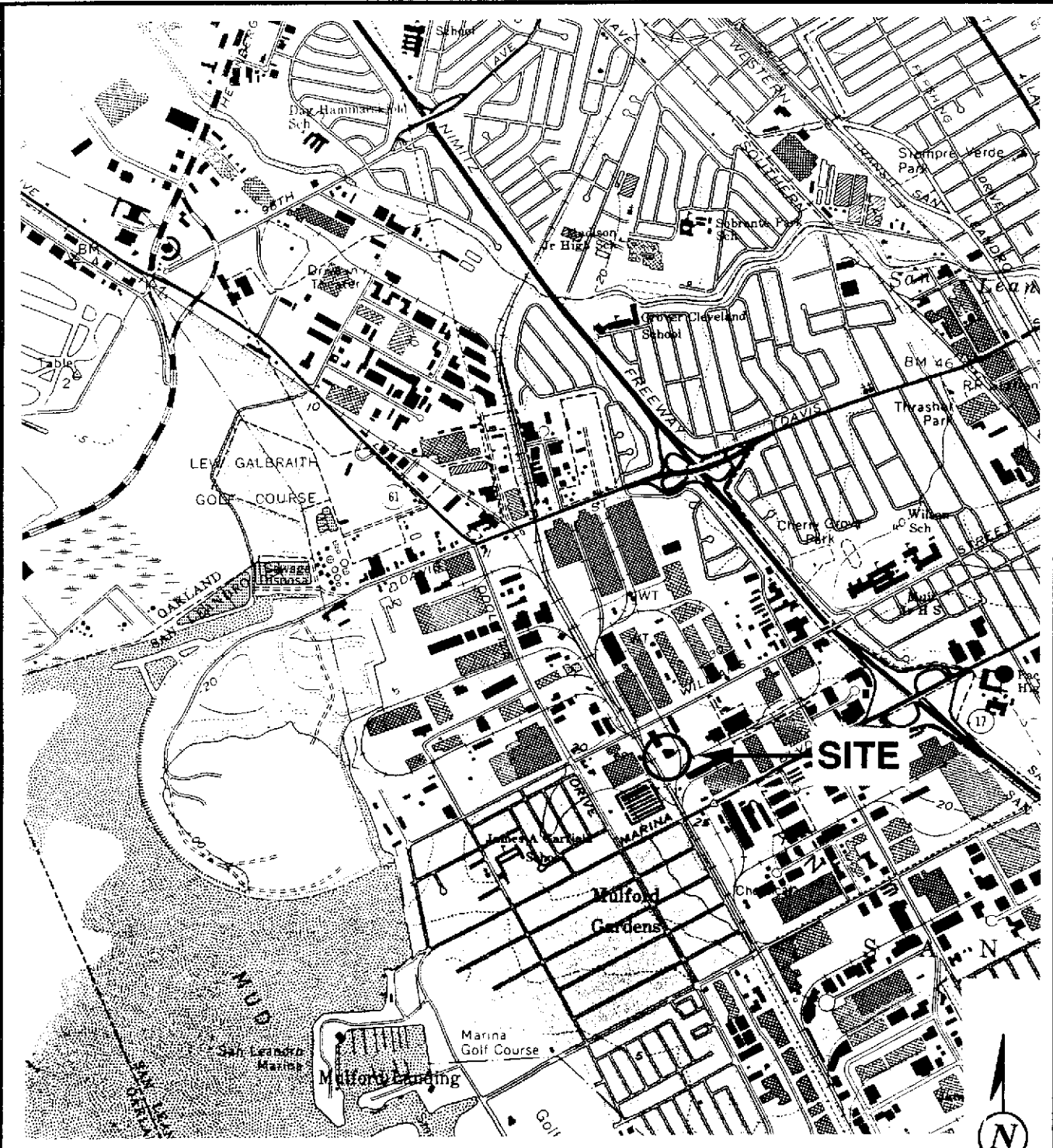
Interim Remedial Actions - Based on the information reviewed, the residual source material (original area of release to soil) has decreased over time due to natural degradation or has sunk through the subsurface. The ground water data suggest the PCE ground water plume appears to be centered within the location of the onsite building (location of the 19 passive vapor extraction wells). Based on approximately one year of operation of the passive vapor extraction system, the data suggests the levels of PCE concentrations appear to be decreasing. All of the wells with the highest concentrations of PCE ($>1,000\mu\text{g/L}$) have reduced in levels in excess of 50%. Basics recommends continued quarterly ground water monitoring to evaluate the progress of the passive ground water remediation system.

DATE 7/31/01

REVIEWED BY

DGT

PREPARED BY



SCALE IN MILES

Topographic Map Source: U.S. Geological Survey, 1959, Photo Revised 1980, San Leandro, California

Site Location



Quarterly Ground Water Sampling and Analysis
 2075 Williams Street
 San Leandro, California

PROJECT NO.
 99-ENV187G

DRAWING NO.
 1

TBLCK (5/28/92)

AMERICAN NATIONAL CAN

SB-1

WILLIAMS STREET

INTERSTATE PLASTICS

H A BOWDEN ELECTRICAL

WARDLEY INDUSTRIAL

NORCAL POTTERY

SB-12

RAILROAD RIGHT OF WAY AND TRACKS

MW-3A MW-3

JAMES RIVER CORPORATION

MW-14

MW-4

SB-13

MW-15A

MW-15

EXISTING BUILDING

CRANE VALVE COMPANY

PG&E TOWER

SB-5

PROPOSED BUILDING

MW-16

MW-16A

MW-10 MW-10A

PRINTPAC FACILITY

SB-11

RAILROAD RIGHT OF WAY AND TRACKS

MW-6



0 100 200
APPROXIMATE SCALE (FEET)

DATE 7/31/01

REVIEWED BY

DGT

PREPARED BY

Ground Water Monitoring Well Locations



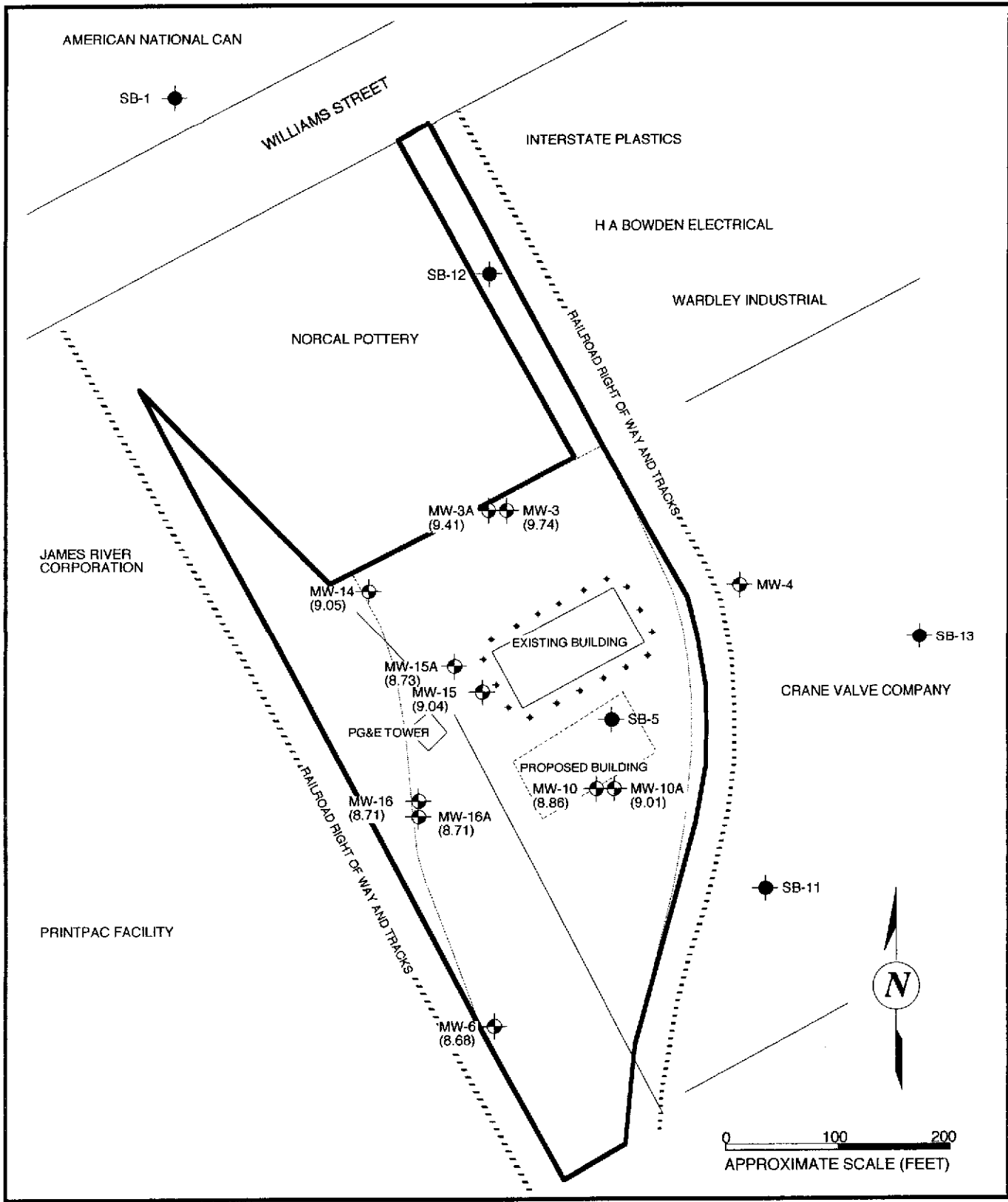
Quarterly Ground Water Sampling and Analysis
2075 Williams Street
San Leandro, California

PROJECT NO.
99-ENV187G

DRAWING NO.
2

TBLCK (525/62)

DATE 7/31/01
REVIEWED BY
PREPARED BY DGT



Ground Water Elevations (msl) (6/27/01)



Quarterly Ground Water Sampling and Analysis
2075 Williams Street
San Leandro, California

PROJECT NO.
99-ENV187G

DRAWING NO.
3

TBLCK (5/28/02)

AMERICAN NATIONAL CAN

SB-1

WILLIAMS STREET

INTERSTATE PLASTICS

H A BOWDEN ELECTRICAL

WARDLEY INDUSTRIAL

NORCAL POTTERY

SB-12

DATE 7/31/01

JAMES RIVER CORPORATION

MW-3A (9.41)

MW-3 (9.74)

(9.3)

(9.2)

(9.3)

(9.2)

(9.0)

MW-14 (9.05)

(8.9)

(8.9)

MW-15A (8.73)

(9.0)

MW-15 (9.04)

(8.9)

PG&E TOWER

MW-16 (8.71)

MW-16A (8.71)

(8.9)

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EXISTING BUILDING

PROPOSED BUILDING

MW-10 (8.86)

MW-10A (9.01)

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MW-4

SB-13

CRANE VALVE COMPANY

SB-5 (8.8)

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SB-11



0 100 200
APPROXIMATE SCALE (FEET)

PREPARED BY DGT
REVIEWED BY
DATE 7/31/01

Ground Water Contour Map



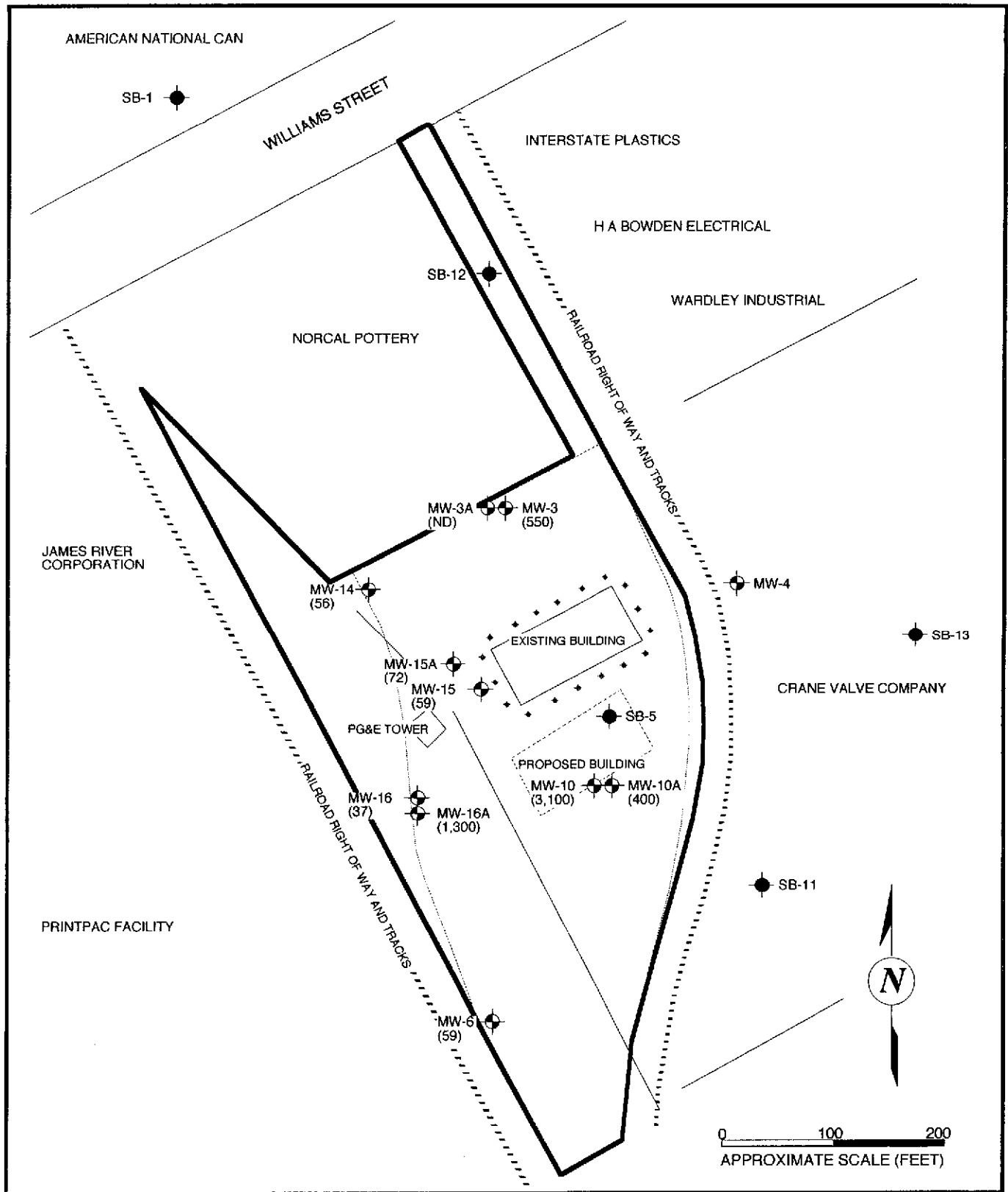
Quarterly Ground Water Sampling and Analysis
2075 Williams Street
San Leandro, California

PROJECT NO.
99-ENV187G

DRAWING NO.
4

TBLCK (5/29/92)

DATE 7/31/01
 REVIEWED BY
 PREPARED BY DGT



PCE Concentrations in Ground Water (µg/L) (6/27/01)



Quarterly Ground Water Sampling and Analysis
 2075 Williams Street
 San Leandro, California

PROJECT NO.
 99-ENV187G

DRAWING NO.
 5

APPENDIX A

WELL GAUGING DATA

Project # 010627-E1 Date 6/27/07 Client Basico Env.

Site 2075 Williams St, San Leandro

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-3	2					16.43	28.95	TOC
MW-3A	1					16.36	59.50	
MW-6	2					13.37	26.43	
MW-10A	2					14.85	41.25	
MW-10B	2					15.00	24.75	
MW-14	2					15.75	23.67	
MW-15	2					16.61	59.10	
MW-15A	1					16.89	36.85	
MW-16	2					14.09	24.62	
MW-16A	1					14.09	37.80	↓

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basics Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>28.95</u>	Depth to Water: <u>16.43</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible

Sampling Method:

Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

<u>2.0</u> (Gals.) X	<u>3</u>	=	<u>6</u>	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1530	67.2	7.2	509	>200	2	Muddy Sand ↓
1532	66.8	7.0	516	>200	4	
1534	66.8	6.9	519	>200	6	

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 1540 Sampling Date: 6/27/01

Sample I.D.: MW-3 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other VOC's x 8010 3 HCL UGA

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-81</u>	Client: <u>Basics Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-3A</u>	Well Diameter: 2 3 4 6 8 <u>(1)</u>
Total Well Depth: <u>59.50</u>	Depth to Water: <u>16.36</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer Waterra Disposable Bailer
 Disposable Bailer Peristaltic Extraction Port
 Middleburg Extraction Pump Dedicated Tubing
 Electric Submersible Other: 5/8 tubing w/ valve Other: Pin Bailer

<u>1.7</u> (Gals.) X	<u>3</u>	=	<u>5.1</u> Gals.
I Case Volume	Specified Volumes	Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1117	66.7	7.4	840	>200	2	Turbid
1120	66.3	7.1	680	>200	4	↓
1122	66.1	7.0	673	>200	6	

Did well dewater? Yes No Gallons actually evacuated: 6

Sampling Time: 1125 Sampling Date: 6/27/01

Sample I.D.: MW-3A Laboratory: McC Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other: VOC's x 8010 3 HCL VOA

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basics Env</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-6</u>	Well Diameter: <u>(2)</u> 3 4 6 8 <u> </u>
Total Well Depth: <u>26.43</u>	Depth to Water: <u>13.37</u>
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible

Waterra
 Peristaltic
 Extraction Pump
 Other: _____

Sampling Method: Bailer

Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

<u>2.0</u>	(Gals.) X	<u>3</u>	=	<u>6.2</u>	Gals.
I Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1148</u>	<u>66.2</u>	<u>7.2</u>	<u>888</u>	<u>7200</u>	<u>2</u>	<u>Muddy</u>
<u>1151</u>	<u>66.2</u>	<u>7.1</u>	<u>894</u>	<u>>200</u>	<u>4</u>	
<u>1154</u>	<u>66.0</u>	<u>7.0</u>	<u>931</u>	<u>>200</u>	<u>7</u>	

Did well dewater? Yes No Gallons actually evacuated: 7

Sampling Time: 1200 Sampling Date: 6/27/01

Sample I.D.: MW-6 Laboratory: McCampbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other VOC's x 8010 3 HCL VOA

Equipment Blank I.D.: @ Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-21</u>	Client: <u>Basics Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-107</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth: <u>24.75</u>	Depth to Water: <u>15.00</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
- Waterra
 Peristaltic
 Extraction Pump
 Other: _____

Sampling Method:

- Bailer
 Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

<u>1.5</u> (Gals.) X	<u>3</u> Specified Volumes	<u>= 4.6</u> Gals.	<u>Calculated Volume</u>
----------------------	----------------------------	--------------------	--------------------------

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1456	66.7	7.1	737	> 200	2	Muddy
1501	66.7	7.0	714	> 200	3	↓
1506	66.7	6.9	689	> 200	5	↓

Did well dewater? Yes No

Gallons actually evacuated: S

Sampling Time: 1506 Sampling Date: 6/27/01

Sample I.D.: MW-10~~7~~ Laboratory: McC Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other: VOC's x 8010 3 HCL VOA

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basis Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-10A</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>41.25</u>	Depth to Water: <u>14.85</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- | | |
|----------------------|-----------------|
| Bailer | Waterra |
| Disposable Bailer | Peristaltic |
| <u>Middleburg</u> | Extraction Pump |
| Electric Submersible | Other _____ |

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

<u>4.2</u> (Gals.) X	<u>3</u>	<u>=</u>	<u>12.6</u> Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1455	66.4	7.3	751	>200	4	Muddy
1459	65.8	7.0	753	>200	8	
1504	65.8	6.9	750	>200	13	↓

Did well dewater? Yes No Gallons actually evacuated: 13

Sampling Time: 1510 Sampling Date: 6/27/01

Sample I.D.: MW-10A Laboratory: Mc Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other VOC's x 8010 3 HCL VOA

Equipment Blank I.D.: _____ @ _____ Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basics Con.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-14</u>	Well Diameter: <u>2</u> 3 4 6 8 _____
Total Well Depth: <u>23.67</u>	Depth to Water: <u>15.75</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other _____

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: _____

<u>1.2</u> (Gals.) X	<u>3</u>	<u>= 3.8</u> Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1214	67.0	7.1	923	>200	1	Muddy
1215	65.9	7.1	899	>200	2	↓
1216	65.5	7.0	876	>200	4	↓

Did well dewater? Yes No Gallons actually evacuated: 4

Sampling Time: 1220 Sampling Date: 6/27/01

Sample I.D.: MW-14 Laboratory: McC Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other VOC's x 8010 3 HCL VOC

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basics Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-15</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>59.10</u>	Depth to Water: <u>16.61</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
 Waterra
 Peristaltic
 Extraction Pump
 Other: _____

Sampling Method:

Bailer

- Disposable Bailer
 Extraction Port
 Dedicated Tubing
 Other: _____

<u>6.8</u>	(Gals.) X	<u>3</u>	=	<u>20.4</u>	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1334	65.7	7.1	686	>200	7	Muddy Sandy
1340	65.7	6.9	687	>200	14	
1347	65.7	6.9	687	>200	21	↓ light stream

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>21</u>
Sampling Time: <u>1355</u>	Sampling Date: <u>6/27/01</u>
Sample I.D.: <u>MW-15</u>	Laboratory: <u>McC Campbell</u>
Analyzed for: TPH-G BTEX MTBE TPH-D <u>Other: VOC's x 8010</u> 3 HCL VOA	
Equipment Blank I.D.: _____ @ _____ Time	Duplicate I.D.: _____
Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____	
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L
ORP (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basiron Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-15A</u>	Well Diameter: 2 3 4 6 8 <u>(C)</u>
Total Well Depth: <u>36.85</u>	Depth to Water: <u>16.89</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible

- Waterra
- Peristaltic
- Extraction Pump
- Other: 9/8 tubing w/ valve

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing

Other: pin bailer

0.7 (Gals.) X 3 = 2.3 Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1411	67.6	7.1	701	>200	1	Muddy
1414	67.3	7.1	705	>200	2	↓
1416	67.2	7.1	707	>200	3	↓

Did well dewater? Yes No

Gallons actually evacuated: 3

Sampling Time: 1420 Sampling Date: 6/27/01

Sample I.D.: MW-15A Laboratory: McC Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other: VOC's x 8010 3 HCL VOA

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basin Conv.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-16</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>24.62</u>	Depth to Water: <u>14.09</u> <u>80% = 16.2</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
 Disposable Bailer
 Middleburg
 Electric Submersible
- Waterra
 Peristaltic
 Extraction Pump
 Other _____

Sampling Method:

Bailer

Disposable Bailer

Extraction Port

Dedicated Tubing

Other: _____

<u>1.6</u> (Gals.) X	<u>3</u>	<u>= 5.0</u> Gals.
Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1246	65.5	7.5	376	109	2	
1247	Well dewatered			@ 2 gal	—	DTW = 23.99
1545	65.1	7.1	300	11	—	DTW = 16.11

Did well dewater? Yes No Gallons actually evacuated: 2

Sampling Time: 1545 Sampling Date: 6/27/01

Sample I.D.: MW-16 Laboratory: McC Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other: VOC's x 8010 3 HCL VOA

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: <u>010627-E1</u>	Client: <u>Basics Env.</u>
Sampler: <u>CO</u>	Start Date: <u>6/27/01</u>
Well I.D.: <u>MW-16A</u>	Well Diameter: 2 3 4 6 8 <u>9</u>
Total Well Depth: <u>37.80</u>	Depth to Water: <u>14.09</u>
Before: _____ After: _____	Before: _____ After: _____
Depth to Free Product: _____	Thickness of Free Product (feet): _____
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- Middleburg
- Electric Submersible

- Waterra
- Peristaltic
- Extraction Pump
- Other: 3/8 tubing w/ valve

Sampling Method:

- Bailer
- Disposable Bailer
- Extraction Port
- Dedicated Tubing

Other: pin bailer

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius ² * 0.163

0.9 (Gals.) X 3 = 2.8 Gals.
 I Case Volume Specified Volumes Calculated Volume

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1254	67.9	7.2	663	>200	1	Turbid
1257	67.5	7.0	669	>200	2	↓
1300	67.2	6.9	671	>200	3	↓

Did well dewater? Yes No Gallons actually evacuated: 3

Sampling Time: 1305 Sampling Date: 6/27/01

Sample I.D.: MW-16A Laboratory: Mc Campbell

Analyzed for: TPH-G BTEX MTBE TPH-D Other: VOC's x 8010 3 HCL VOC

Equipment Blank I.D.: _____ @ _____ Time Duplicate I.D.: _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX B



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Basics Environmental 116 Gloreitta Boulevard Orinda, CA 94563	Client Project ID: #010627-E1	Date Sampled: 06/27/01
		Date Received: 06/28/01
	Client Contact: Donovan Tom	Date Extracted: 07/02-07/06/01
	Client P.O:	Date Analyzed: 07/02-07/06/01

Volatile Halocarbons

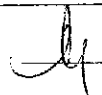
EPA method 601 or 8010

Lab ID	71276	71277	71278	71279
Client ID	MW3	MW3A	MW-6	MW10
Matrix	W	W	W	W
Compound	Concentration			
Bromodichloromethane	ND<12.5	ND	ND	ND<62.5
Bromoform ^(b)	ND<12.5	ND	ND	ND<62.5
Bromomethane	ND<12.5	ND	ND	ND<62.5
Carbon Tetrachloride ^(c)	ND<12.5	ND	ND	ND<62.5
Chlorobenzene	ND<12.5	ND	ND	ND<62.5
Chloroethane	ND<12.5	ND	ND	ND<62.5
2-Chloroethyl Vinyl Ether ^(d)	ND<12.5	ND	ND	ND<62.5
Chloroform ^(e)	ND<12.5	ND	ND	ND<62.5
Chloromethane	ND<12.5	ND	ND	ND<62.5
Dibromochloromethane	ND<12.5	ND	ND	ND<62.5
1,2-Dichlorobenzene	ND<12.5	ND	ND	ND<62.5
1,3-Dichlorobenzene	ND<12.5	ND	ND	ND<62.5
1,4-Dichlorobenzene	ND<12.5	ND	ND	ND<62.5
Dichlorodifluoromethane	ND<12.5	ND	ND	ND<62.5
1,1-Dichloroethane	ND<12.5	ND	ND	ND<62.5
1,2-Dichloroethane	ND<12.5	ND	ND	ND<62.5
1,1-Dichloroethene	ND<12.5	ND	ND	ND<62.5
cis 1,2-Dichloroethene	ND<12.5	ND	0.94	85
trans 1,2-Dichloroethene	ND<12.5	ND	ND	ND<62.5
1,2-Dichloropropane	ND<12.5	ND	ND	ND<62.5
cis 1,3-Dichloropropene	ND<12.5	ND	ND	ND<62.5
trans 1,3-Dichloropropene	ND<12.5	ND	ND	ND<62.5
Methylene Chloride ^(f)	ND<12.5	ND<1.5	ND<1.5	ND<62.5
1,1,2,2-Tetrachloroethane	ND<12.5	ND	ND	ND<62.5
Tetrachloroethene	550	ND<1.5	59	3100
1,1,1-Trichloroethane	ND<12.5	ND	ND	ND<62.5
1,1,2-Trichloroethane	ND<12.5	ND	ND	ND<62.5
Trichloroethene	100	ND	23	700
Trichlorofluoromethane	ND<12.5	ND	ND	ND<62.5
Vinyl Chloride ^(g)	ND<12.5	ND	ND	ND<62.5
% Recovery Surrogate	98	101	100	105
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Basics Environmental 116 Gloreitta Boulevard Orinda, CA 94563	Client Project ID: #010627-E1	Date Sampled: 06/27/01
		Date Received: 06/28/01
	Client Contact: Donovan Tom	Date Extracted: 07/02-07/06/01
	Client P.O:	Date Analyzed: 07/02-07/06/01

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	71280	71281	71282	71283
Client ID	MW-10A	MW-14	MW-15	MW-15A
Matrix	W	W	W	W
Compound	Concentration			
Bromodichloromethane	ND<10	ND<2.5	ND<2.5	ND<5.0
Bromoform ^(b)	ND<10	ND<2.5	ND<2.5	ND<5.0
Bromomethane	ND<10	ND<2.5	ND<2.5	ND<5.0
Carbon Tetrachloride ^(c)	ND<10	ND<2.5	ND<2.5	ND<5.0
Chlorobenzene	ND<10	ND<2.5	ND<2.5	ND<5.0
Chloroethane	ND<10	ND<2.5	ND<2.5	ND<5.0
2-Chloroethyl Vinyl Ether ^(d)	ND<10	ND<2.5	ND<2.5	ND<5.0
Chloroform ^(e)	ND<10	ND<2.5	ND<2.5	ND<5.0
Chloromethane	ND<10	ND<2.5	ND<2.5	ND<5.0
Dibromochloromethane	ND<10	ND<2.5	ND<2.5	ND<5.0
1,2-Dichlorobenzene	ND<10	ND<2.5	ND<2.5	ND<5.0
1,3-Dichlorobenzene	ND<10	ND<2.5	ND<2.5	ND<5.0
1,4-Dichlorobenzene	ND<10	ND<2.5	ND<2.5	ND<5.0
Dichlorodifluoromethane	ND<10	ND<2.5	ND<2.5	ND<5.0
1,1-Dichloroethane	ND<10	ND<2.5	ND<2.5	ND<5.0
1,2-Dichloroethane	ND<10	ND<2.5	ND<2.5	ND<5.0
1,1-Dichloroethene	ND<10	ND<2.5	ND<2.5	ND<5.0
cis 1,2-Dichloroethene	ND<10	ND<2.5	2.8	5.8
trans 1,2-Dichloroethene	ND<10	ND<2.5	ND<2.5	ND<5.0
1,2-Dichloropropane	ND<10	ND<2.5	ND<2.5	ND<5.0
cis 1,3-Dichloropropene	ND<10	ND<2.5	ND<2.5	ND<5.0
trans 1,3-Dichloropropene	ND<10	ND<2.5	ND<2.5	ND<5.0
Methylene Chloride ^(f)	ND<10	ND<2.5	ND<2.5	ND<5.0
1,1,2,2-Tetrachloroethane	ND<10	ND<2.5	ND<2.5	ND<5.0
Tetrachloroethene	400	56	59	72
1,1,1-Trichloroethane	ND<10	ND<2.5	ND<2.5	ND<5.0
1,1,2-Trichloroethane	ND<10	ND<2.5	ND<2.5	ND<5.0
Trichloroethene	21	71	5.3	36
Trichlorofluoromethane	ND<10	ND<2.5	ND<2.5	ND<5.0
Vinyl Chloride ^(g)	ND<10	ND<2.5	ND<2.5	ND<5.0
% Recovery Surrogate	94	91	90	90
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



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Basics Environmental 116 Gloreitta Boulevard Orinda, CA 94563	Client Project ID: #010627-E1	Date Sampled: 06/27/01
	Client Contact: Donovan Tom	Date Received: 06/28/01
	Client P.O:	Date Extracted: 07/02-07/06/01
		Date Analyzed: 07/02-07/06/01

Volatile Halocarbons


EPA method 601 or 8010

Lab ID	71284	71285	
Client ID	MW-16	MW-16A	
Matrix	W	W	
Compound	Concentration		
Bromodichloromethane	ND<2.5	ND<2.5	
Bromoform ^(b)	ND<2.5	ND<2.5	
Bromomethane	ND<2.5	ND<2.5	
Carbon Tetrachloride ^(c)	ND<2.5	ND<2.5	
Chlorobenzene	ND<2.5	ND<2.5	
Chloroethane	ND<2.5	ND<2.5	
2-Chloroethyl Vinyl Ether ^(d)	ND<2.5	ND<2.5	
Chloroform ^(e)	ND<2.5	ND<2.5	
Chloromethane	ND<2.5	ND<2.5	
Dibromochloromethane	ND<2.5	ND<2.5	
1,2-Dichlorobenzene	ND<2.5	ND<2.5	
1,3-Dichlorobenzene	ND<2.5	ND<2.5	
1,4-Dichlorobenzene	ND<2.5	ND<2.5	
Dichlorodifluoromethane	ND<2.5	ND<2.5	
1,1-Dichloroethane	ND<2.5	ND<2.5	
1,2-Dichloroethane	ND<2.5	ND<2.5	
1,1-Dichloroethene	ND<2.5	ND<2.5	
cis 1,2-Dichloroethene	ND<2.5	ND<2.5	
trans 1,2-Dichloroethene	ND<2.5	ND<2.5	
1,2-Dichloropropane	ND<2.5	ND<2.5	
cis 1,3-Dichloropropene	ND<2.5	ND<2.5	
trans 1,3-Dichloropropene	ND<2.5	ND<2.5	
Methylene Chloride ^(f)	ND<2.5	ND<2.5	
1,1,2,2-Tetrachloroethane	ND<2.5	ND<2.5	
Tetrachloroethene	37	1300	
1,1,1-Trichloroethane	ND<2.5	ND<2.5	
1,1,2-Trichloroethane	ND<2.5	ND<2.5	
Trichloroethene	ND<2.5	62	
Trichlorofluoromethane	ND<2.5	ND<2.5	
Vinyl Chloride ^(g)	ND<2.5	ND<2.5	
% Recovery Surrogate	93	94	
Comments			

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
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(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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QC REPORT

EPA 8010/8020/EDB

Date: 07/02/01-07/02/01

Extraction: EPA 5030

Matrix: Water

Compound	Concentration: ug/L			%Recovery		RPD	
	Sample	MS	MSD	MS	MSD		
SampleID: 70201		Instrument: GC-1					
Surrogate1	ND	90.0	92.0	100.00	90	92	2.2
Chlorobenzene	ND	10.0	10.1	10.00	100	101	1.0
Trichloroethane	ND	9.8	9.8	10.00	98	98	0.0
1,1-DCE	ND	11.9	11.7	10.00	119	117	1.7

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

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

RPD means Relative Percent Deviation

BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE
 SAN JOSE, CALIFORNIA 95112-1105
 FAX (408) 573-7771
 PHONE (408) 573-0555

26574 Z0E62

CONDUCT ANALYSIS TO DETECT

LAB

McC Campbell

DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER
- RWQCB REGION

SPECIAL INSTRUCTIONS

Invoice and Report to : Basics Environmental

Attn: Donovan Tom

925-258-9099

CHAIN OF

BTS # 010627-E1

CLIENT Basics Environmental

SITE 2075 Williams Street

San Leandro, CA

C = COMPOSITE ALL CONTAINERS

EPA 8010

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H ₂ O	CONTAINERS TOTAL	C = COMPOSITE ALL CONTAINERS	EPA 8010	ADD'L INFORMATION	STATUS	CONDITION	LA
+ MW-3	6/27/01	1540	W	3		X				71276
+ mw-3A		1125				X				71277
+ mw-6		1200				X				71278
+ mw-10		1506				X				71279
+ mw-10A		1510				X				71280
+ mw-14		1220				X				71281
+ mw-15		1355				X				71282
+ mw-15A		1400				X				71283
+ mw-16		1915				X				71284
+ mw-16A		131				X				71285

SAMPLING COMPLETED DATE 6/27/01 TIME 1600 RESULTS NEEDED NO LATER THAN 5 day TAT

RELEASED BY [Signature] DATE 6/28/01 TIME 9:15 RECEIVED BY [Signature] DATE 6-28-01 TIME 9:40

RELEASED BY [Signature] DATE 6-28-01 TIME 1730 RECEIVED BY [Signature] DATE 6-28-01 TIME 1830

RELEASED BY [Signature] DATE 6/28/01 TIME 7:30 RECEIVED BY [Signature] DATE 6/28/01 TIME 7:30

ICE/COOLERS PRESERVATION APPROPRIATE CONTAINERS HEAD SPACE ABSENT DATE SENT TIME SENT COOLER#