WAREHAM DEVELOPMENT

RECEIVED

1:21 pm, Oct 13, 2008

Alameda County
Environmental Health

October 2, 2006

Regional Water Quality Control Board
1515 Clay Street
Oakland, CA 94612

ATTENTION: Bruce H. Wolfe
Executive Officer

REFERENCE: Wareham Labs
Emeryville, California

SUBJECT: Third Quarter Report
NPDES General Permit No. CAG912002

Dear Mr. Wolfe:

Attached please find the Third Quarter Report for Wareham Labs in Emeryville, CA.

I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

For ES East Associates, LLC

c: Farhad Azimzadeh - RWQCB
Bob McCarrick - PSEC

1120 Nye Street • Suite 400 • San Rafael, California 94901 • 415 457-4964 • FAX 415 459-4605

THIRD QUARTER REPORT
NPDES TREATMENT SYSTEM
UNDER NPDES CAG912002

EMERY STATION EAST
5885 HOLLIS STREET
EMERYVILLE, CA

AUGUST 15, 2006

Prepared for:
DPR
Redwood City, California

Prepared by:

Pacific States
ENVIRONMENTAL CONTRACTORS, INC.
California Contractor License #723241-A-HAZ

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Pacific States

SIGNATURE PAGE

All engineering information, conclusions, and recommendations contained in this report have been prepared by a California Professional Engineer

Robert McCarrick
California Professional Engineer
Civil

10-2-06
Date

REGISTERED PROFESSIONAL ENGINEER
ROBERT E. McCARRICK
35090
Expires 9-30-07
CIVIL
STATE OF CALIFORNIA

1.0 INTRODUCTION

This Quarterly Report (Report) has been prepared by Pacific States Environmental Contractors, Inc. (PSEC) on behalf of Wareham Development Group San Rafael, California. The Application has been prepared for discharge of water generated by dewatering activities on the property located at 5885 Hollis Street Emeryville, CA. A Site Location Map as well as a Site Plan are shown in **Figure 1** and **Figure 2,** respectively. The site will be developed into either a commercial/laboratory space or multi-family residential constructed over subgrade parking.

This Report is being submitted to the Regional Water Quality Control Board – San Francisco Region ("the Regional Board") pursuant to Order Number 01-100, CAG912002, a General Waste Discharge Requirement Permit. The Report describes the startup of the NPDES treatment system treating groundwater generated by dewatering activities during construction work taking place onsite. The groundwater beneath part of the Site is impacted by petroleum hydrocarbons.

As part of the development, excavation of underlying soil will be conducted to allow for a subgrade basement garage. The excavation will require dewatering and these dewatering activities will remove a significant quantity of contaminated groundwater. That water will be treated using treatment equipment provided by Baker Tanks and maintained by PSEC.

2.0 PROJECT DESCRIPTION

Groundwater from dewatering operations will be pumped to the temporary treatment system. Water will be pumped into two 21,000-gallon tanks, arranged in series, to allow settlement of suspended solids. The water will then pass through a sand filter, and then through at least two 2,000-pound 75-psi granular activated carbon vessels arranged in series containing either coconut shell carbon or bituminous carbon. The water may be discharged to an effluent storage tank to make treated water available for dust control and compaction use during construction, or it will be discharged to the storm drain inlet at the south end of the jobsite on Pleadeau Street. The process flow schematic is shown in **Figure 3**.

2.1 DESIGN CRITERIA

The maximum dewatering influent and effluent discharge flow rate for the treatment system of 30 wells is 5 gallons per minute per well, or 216,000 gallons per day. Average daily flows will likely be in the range of 210,000 to 220,000 gallons per day. Maximum inflow concentrations of total petroleum hydrocarbons as diesel (TPH-d) have been estimated at 8,400 µg/l. The system is also designed to treat low concentrations of benzene, toluene, ethyl benzene and total xylenes (BTEX), and other non-chlorinated volatile organic compounds (VOCs) that may be encountered during dewatering.

Effluent criteria for and benzene, toluene and ethyl benzene compounds are 5 µg/l. Effluent criteria for TPH is 50 µg/l.

TPHg, TPH-d, and BTEX concentrations will be monitored via samples collected at the influent (I-1, following the settling tank), the carbon filter midpoint (M-1), and effluent from the carbon filters (E-1). Additional sampling will occur as required in the NPDES permit CAG912002 Self-Monitoring Program.

3.0 NPDES SELF- MONITORING PROGRAM

Samples were collected at system startup, March 30, 2006, on the fifth day of operation, April 7, 2006, May 16, 2006, June 20, 2006, and on July 21, 2006, to characterize untreated water, treatment system status and effluent discharge quality.

3.1 START-UP

Start-up of the treatment system began March 30, 2006. Treated water generated during the first 4 hours (approximately 4,000 gallons) was stored on site pending receipt of analytical results. Discharge from the treatment system began on April 3, 2006.

During the five-day start-up period, approximately 14,100 gallons of groundwater were treated and discharged. The average flow rate during start-up was 1.22 gallons per minute (gpm). System flow rates for the first week of treatment are summarized in **Table 1**.

3.2 SAMPLING

Influent and effluent samples were collected for laboratory analysis as required by the NPDES Self-Monitoring Program. TPHg, TPH-d, and BTEX concentrations were monitored via samples collected at the influent (I-1, following the settling tank) and effluent from the carbon filters (E-1). Temperature, pH, and electrical conductivity were monitored during sampling.

Samples were collected from sample taps in the treatment system into laboratory-supplied sample bottles. After filling and labeling, the sample containers were placed in ice-cooled, insulated chests for transport to the laboratory for analysis. Chain-of-custody records were completed for the samples. These records accompanied the samples until receipt by McCampbell Analytical Inc., of Pacheco, a California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) certified laboratory (ELAP# 1644).

Laboratory quality assurance/quality control (QA/QC) data and reporting limits were reviewed for each laboratory report received.

The self-monitoring samples were analyzed for turbidity, pH, hardness, conductivity, BTEX, MTBE, thirteen total metals, hex chromium, mercury, total cyanide, EDB, VOC's, TAME, DIPE, ETBE, TBA, ethanol, methanol, SVOC's, PAH's and total extractable petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd).

3.3 ANALYTICAL RESULTS

Results of self-monitoring analyses are summarized in **Tables 2** through **5** and discussed below. Copies of the laboratory analyses and chain of custody forms can be found in **Appendix A**

3.3.1 General Chemistry

As required by the General Permit, samples collected at I-1 and E-1 on March 30, 2006, April 7, 2006, May 16, 2006, June 20, 2006, and July 21, 2006, were analyzed for pH, temperature, turbidity, hardness (as $CaCO_3$) and electric conductivity. Results of the General Permit chemistry analyses are summarized in **Table 2**.

On March 30, 2006, the pH at influent ranged from 7.3 the standard units (S.U.) as measured in the laboratory to 7.6 S.U. as measured in the field. The pH at the effluent ranged from 8.09 S.U. as measured in the laboratory to 8.0 as measured in the field. The water was not discharged. It was stored onsite pending the results of analyses the following day.

The slight increase in pH across the treatment system was attributed to the GAC activation process. The pH of the GAC was adjusted by the vendor prior to purchase.

On May 16, 2006 and June 20, 2006, the pH at the influent ranged from 7.81 standard units (S.U.) as measured in the laboratory to 7.6 S.U. as measured in the field and from 7.32 S.U. as measured in the laboratory to 7.45 S.U. as measured in the field. The pH at the effluent ranged

from 7.5 S.U. as measured in the laboratory to 7.3 as measured in the field and 7.17 S.U. as measured in the laboratory to 7.5 in the field.

On July 21, 2006 the pH at the influent ranged from 7.7 standard units measured in the field to 7.73 S.U. in the laboratory. The pH of the effluent during the sample ranged from 7.45 S.U. in the field to 7.54 S.U. in the laboratory.

Field measurements revealed influent temperatures of 21.3 °C, effluent temperatures 22.1 °C; influent conductivity at 800 µmhos/cm and effluent conductivity 900 µmhos/cm. Tests on May 16, 2006 and June 20, 2006 revealed temperatures in the same range and effluent conductivity of 1300 µmhos/cm and 1200 µmhos/cm as noted in **Table 2**. Temperatures remained very close on July 21, 2006, at 20.9 °C at the influent and 21.2 °C at the effluent.

Laboratory analysis showed turbidity of 4.10 and 29 Nephelometric Turbidity Units (NTUs) for the effluent samples collected on March 30, 2006 and April 7, 2006, respectively. In addition, the laboratory analysis showed hardness of 260 mg/L and 290 mg/L for the effluent samples collected on March 30, 2006 and April 7, 2006, respectively. Effluent samples collected on June 20, 2006 showed turbidity readings of 1.5 NTUs and a hardness of 360 mg/L.

3.3.2 Inorganic Analyses

On March 30, 2006, April 7, 2006, May 16, 2006 and June 20, 2006, samples of influent and effluent were collected for analysis of inorganic chemicals. Inorganic chemicals analyzed included antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc analyzed by EPA Method E200.8, mercury analyzed by EPA Method E1631, cyanide analyzed by EPA Method E335.3, Hex Chromium analyzed by EPA Method E218.6 . Sampling results are summarized in **Table 3**.

3.3.3 TPH

Influent and effluent samples collected on March 30, 2006, April 7, 2006, May 16, 2006, June 20, 2006 and July 21, 2006, were analyzed for total petroleum hydrocarbons as gasoline, diesel and BTEX compounds. Laboratory analysis of the samples revealed that the discharge limit for TPH of 50 micrograms per liter (µg/l) was not exceeded except with the influent test on May 16, 2006. A summary of these results is presented in **Table 4**.

3.3.4 Volatile Organic Compounds (VOCs) and Semi Volatile Organic Compounds (SVOCs).

Laboratory analysis for VOCs by EPA Method 8260B and SVOC's by EPA Method 8270D for the effluent samples collected on April 7, 2006, May 16, 2006, June 20, 2006 and July 21, 2006, revealed no exceedances of the concentration-based triggers. A summary of VOC and SVOC analytical is also presented in **Table 4**.

3.3.5 Fish Bioassay Results

Laboratory results for a fish bioassay performed on the system effluent on April 7, 2006 and June 20, 2006 both indicated a 100% survival rate. Results are summarized in **Table 5.**

3.4 SUMMARY OF SYSTEM START-UP OPERATION

Following review of effluent analytical data collected on March 30, 2006, discharge began on April 3, 2006. Approximately 14,100 gallons of groundwater were extracted and treated between April 3 and April 7, 2006. The average flow rate was approximately 1.2 gpm.

4.0 PLANNED WORK – FORTH QUARTER 2006

No further work is planned for the forth quarter of 2006. The treatment system has been offline since work was completed on July 28, 2006. Sampling and analysis of influent and effluent water from the treatment system will not continue during the remainder of the fourth quarter of 2006.

TABLES

TABLE 1
FLOW SUMMARY FOR NPDES TREATMENT SYSTEM
Wareham Labs
Emeryville, CA

Date	Meter Reading (gallons)	Instantaneous Flow Rate (gpm)	System Average Flow Rate (gpm)	System Cumulative Volume (gallons)
March 30, 2006	13339400	150	0.0	0
April 3, 2006	13344900	150	1.0	5500
April 5, 2006	13346900	150	0.9	7500
April 10, 2006	13373700	150	2.2	34300
April 21, 2006	13602300	150	8.3	262900
April 24, 2006	13622600	150	7.9	283200
April 27, 2006	13625800	150	7.1	286400
May 8, 2006	13651600	150	5.6	312200
May 16, 2006	13677500	150	5.0	338100
June 20, 2006	13832700	150	4.2	493300
June 23, 2006	13840800	150	4.1	501400
June 27, 2006	13849000	150	4.0	509600
June 30, 2006	13857200	150	3.9	517800
July 7, 2006	13882100	150	3.8	542700
July 12, 2006	13898500	150	3.7	559100
July 18, 2006	13911700	150	3.6	572300
July 21, 2006	13925700	150	3.6	586300
July 24, 2006	13938800	150	3.6	599400
July 28, 2006	13969900	150	3.6	630500

Total Operating Period (days)	120
Total Volume Treated & Discharged (gallons)	630,500
Average Daily Flow for Period (gallons per day)	5,254

TABLE 2
GENERAL CHEMICAL TREATMENT DATA
Wareham Labs
Emeryville, California

Sample Location	Date Sampled	Temperature (Field) (^{o}C)	pH (Field) (S.U.)	Electrical Conductivity (Laboratory) µmhos/cm	Turbidity (NTUs)
Influent	3/30/2006	21	7.6	837	440
	4/7/2006	21.5	7.5	1140	735
	5/16/2006	21.2	7.81	--	--
	6/20/2006	20.8	7.32	--	--
	7/21/2006	20.9	7.7	--	--
Effluent	3/30/2006	22.1	8	852	4.1
	4/7/2006	20.5	7.9	1050	29
	5/16/2006	21.6	7.5	1300	--
	6/20/2006	21.1	7.17	1200	1.5
	7/21/2006	21.2	7.45	1100	--
Effluent Limitations		--	6.5-8.5	--	--
Receiving Water Limitations		No change	Change <0.5	No change	No change

Notes:

^{o}C – degrees centigrade, measured in field
µmhos/cm – micromhos per centimeter
NTUs – nephelometric turbidity units
mg/l – milligrams per liter
-- not analyzed

TABLE 3
INORGANIC CHEMICAL DATA – TOTAL METALS*
Wareham Labs
Emeryville, California

Sample Location	Date Sampled	Flowrate (gpd)	Antimony (µg/l)	Arsenic (µg/l)	Beryllium (µg/l)	Cadmium (µg/l)	Chromium (µg/l)	Copper (µg/l)	Lead (µg/l)	Mercury (µg/l)	Nickel (µg/l)	Selenium (µg/l)	Silver (µg/l)	Thallium (µg/l)	Zinc (µg/l)	Cyanide (µg/l)	Hexachrome (µg/l)
Influent	3/30/2006	1,368	0.81	2.1	ND	ND	15	6.2	1.3	0.015	10	0.96	ND	ND	21	ND	7.7
	4/7/2006	1,756	0.7	2.9	ND	ND	2.6	7	ND	0.016	5.5	0.75	ND	ND	25	ND	1.5
	5/16/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/20/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/21/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Effluent	3/30/2006	1,368	1.3	10	ND	ND	0.72	52	9.4	0.0035	6.5	0.97	ND	ND	86	ND	ND
	4/7/2006	1,756	1.3	7.5	ND	ND	7.6	8	2.4	0.0028	10	1.1	ND	ND	21	ND	ND
	5/16/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/20/2006	6,048	ND	ND	ND	ND	ND	78	10	ND	ND	ND	ND	16	120	ND	ND
	7/21/2006	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Mass Discharged (g/d) 3/30/2006			6.74E-03	5.18E-02	N/A	N/A	3.73E-03	2.69E-01	4.87E-02	1.81E-05	3.37E-02	5.03E-03	N/A	N/A	4.46E-01	N/A	N/A
Mass Discharged (g/d) 4/7/2006			8.65E-03	4.99E-02	N/A	N/A	5.06E-02	5.32E-02	1.60E-02	1.86E-05	6.65E-02	7.32E-03	N/A	N/A	1.40E-01	N/A	N/A
Mass Discharged (g/d) 5/16/2006			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mass Discharged (g/d) 6/20/2006			N/A	N/A	N/A	N/A	N/A	1.79E+00	2.29E-01	N/A	N/A	N/A	N/A	3.67E-01	2.75E+00	N/A	N/A
Mass Discharged (g/d) 7/21/2006			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mass Based Trigger (g/d) Flow: less than 10 gpm			3	1	3	1	2	3	5	0.01	5	2	1	3	10	1	N/A
Mass Based Trigger (g/d) Flow: >100 gpm			10	10	10	4	20	10	10	0.5	40	45	10	10	200	1	N/A

Notes:

gpd – gallons per day
µg/l – micrograms per liter
g/d – grams per day
ND – Not detected
-- not analyzed

TABLE 4
PETROLEUM HYDROCARBON AND
VOLATILE ORGANIC COMPOUND CONCENTRATIONS[1]
Wareham Labs
Emeryville, CA

Sample Location	Date Sampled	Petroleum Hydrocarbons						
		TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE
		(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
Influent	3/30/2006	200,000	64	1400	510	ND	ND	ND
	4/7/2006	70,000	ND	630	ND	ND	ND	ND
	5/16/2006	51	ND	ND	ND	ND	ND	ND
	6/20/2006	ND	ND	ND	ND	ND	ND	ND
	7/21/2006	ND	ND	ND	ND	ND	ND	ND
Effluent	3/30/2006	ND	ND	ND	ND	ND	ND	ND
	4/7/2006	ND	ND	ND	ND	ND	ND	ND
	5/16/2006	ND	ND	ND	ND	ND	ND	ND
	6/20/2006	ND	ND	ND	ND	ND	ND	ND
	7/21/2006	ND	ND	ND	ND	ND	ND	ND
Effluent Limitations		50	50	1	5	5	5	5

Notes:

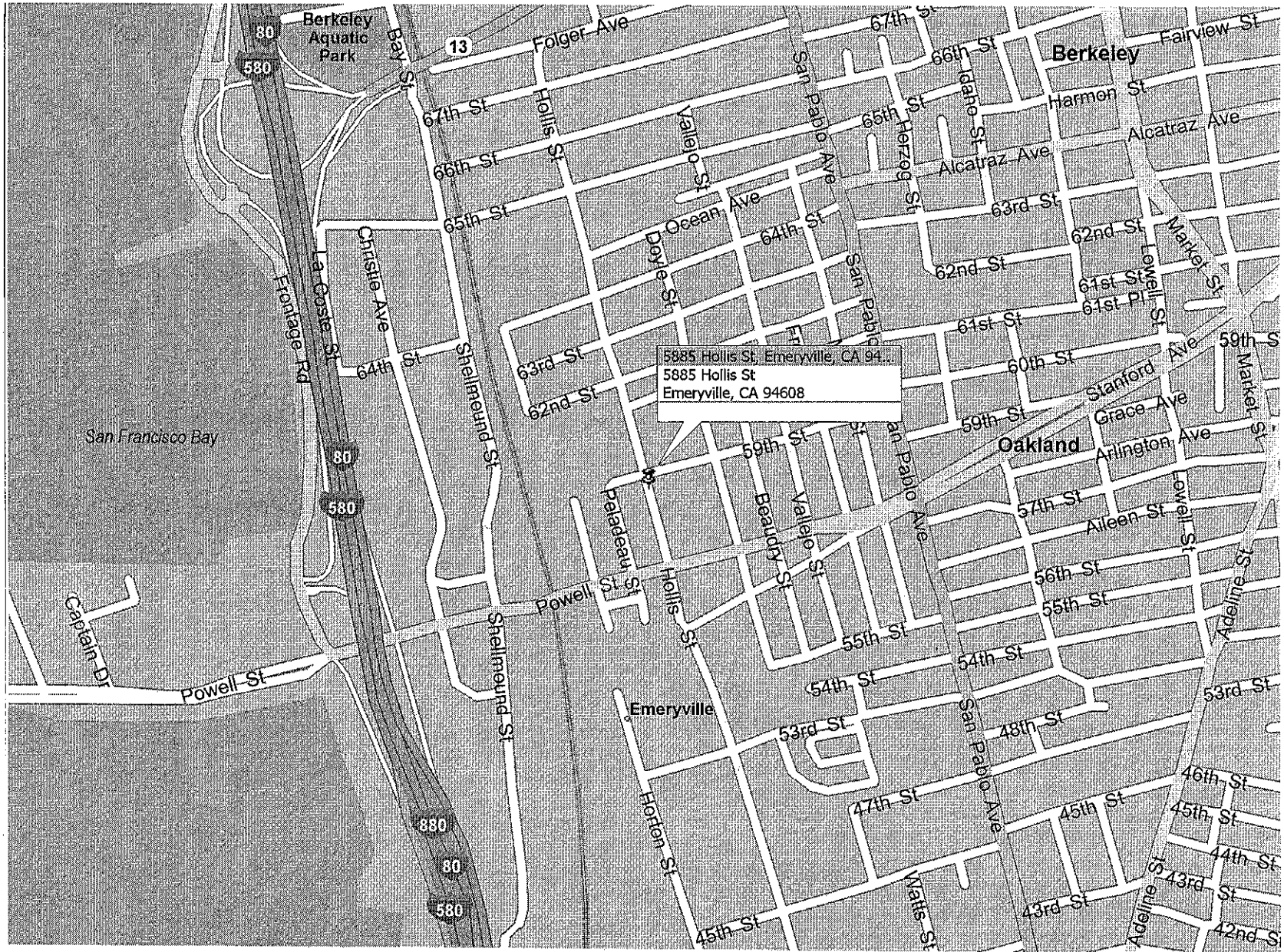
µg/l – Micrograms per liter
TPH-g – Total petroleum hydrocarbons as gasoline
TPH-d – Total petroleum hydrocarbons as diesel

[1] – Influent and effluent samples taken on April 7, 2006 were analyzed for Volatile Organic Compound (VOC) by EPA Method 8260B; for Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D for Alcohols by GC-FID and for Polynuclear Aromatic Hydrocarbons. All effluent compounds were non-detect.

TABLE 5
FISH BIOASSAY RESULTS - EFFLUENT
Wareham Labs
Emeryville, CA

Date	Test Organisms	% Survival
4/7/2006	Fathead Minow	100
6/20/2006	Rainbow Trout	100

FIGURES

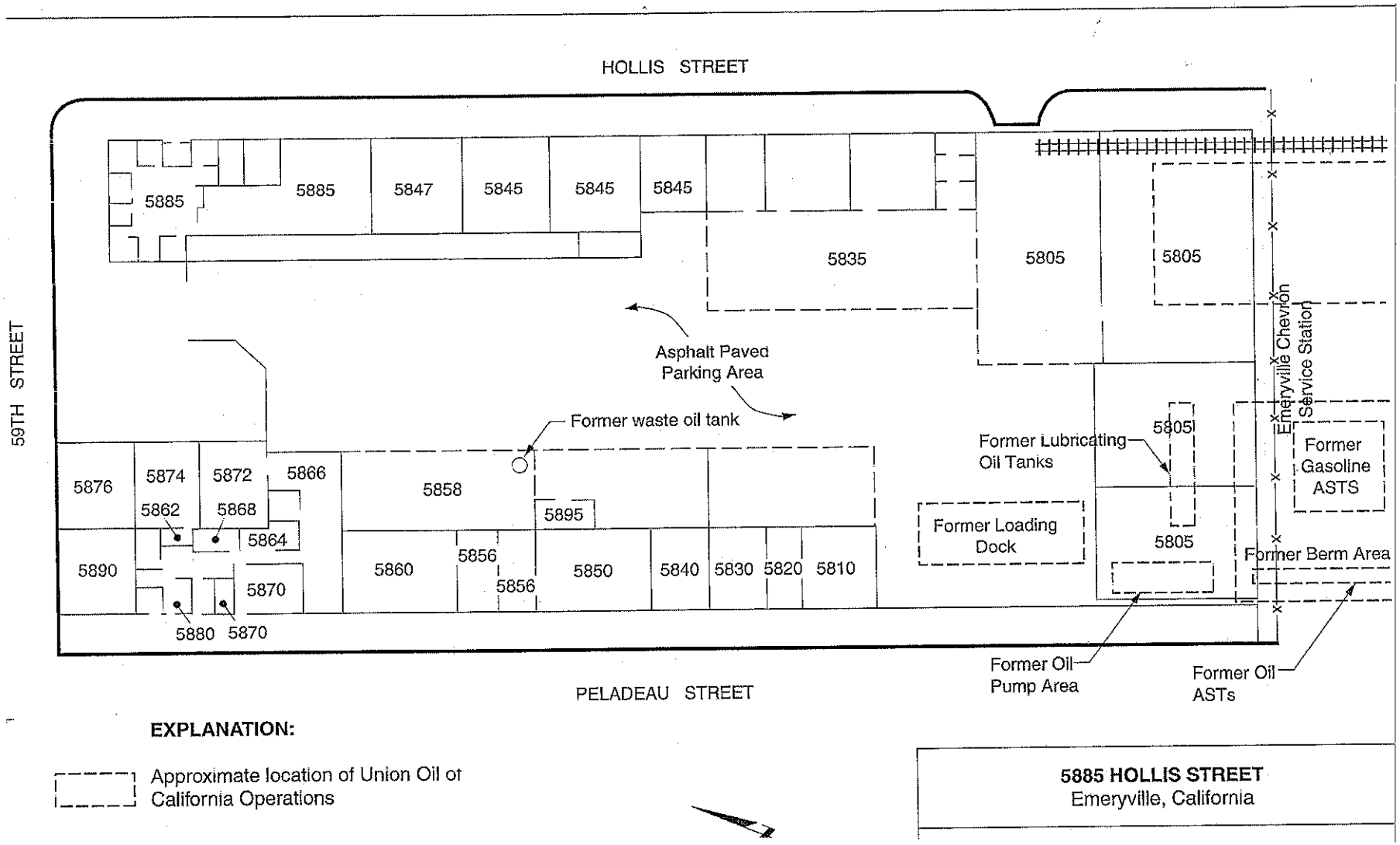


Pacific States
ENVIRONMENTAL CONTRACTORS, INC.
California Contractor License #723241-A-HAZ

Site Location Map

5885 Hollis Street
Emeryville, CA

Figure
1



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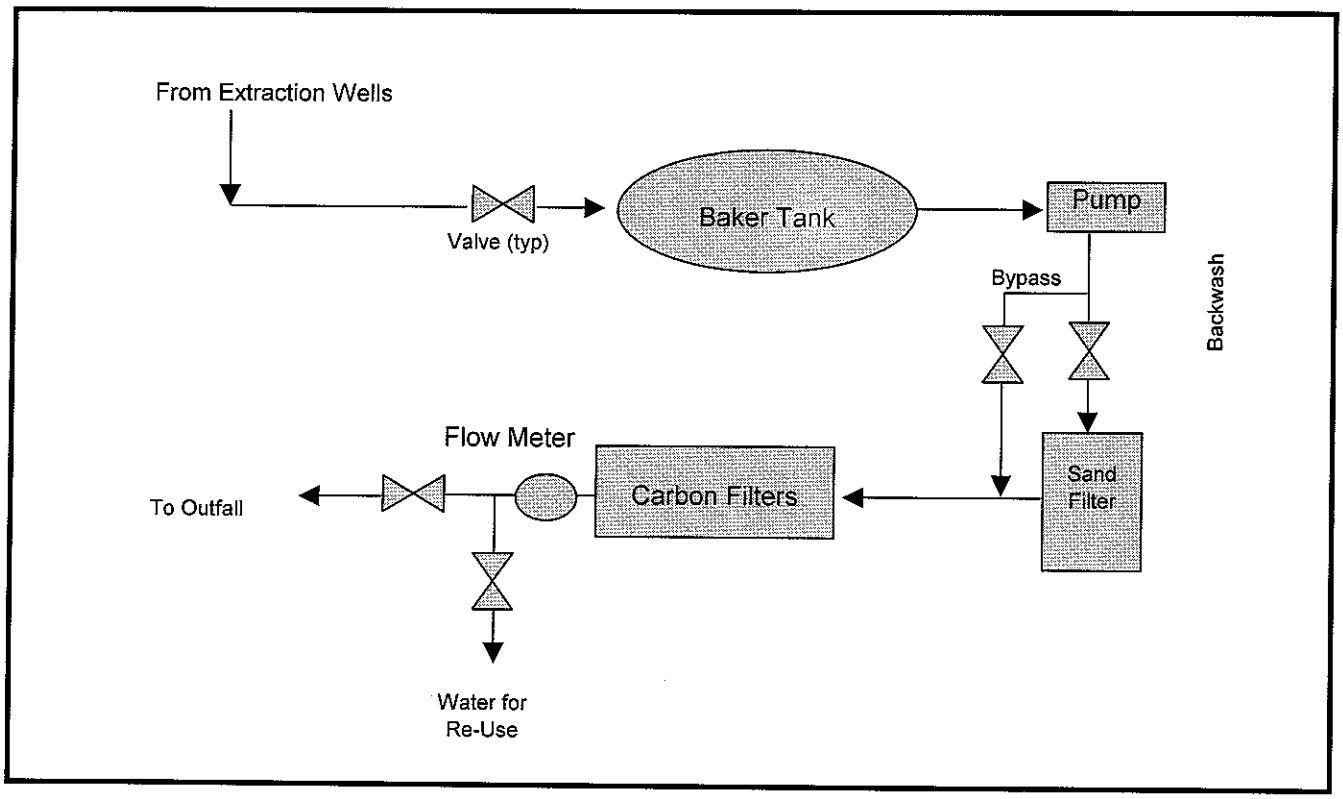
ENVIRONMENTAL CONTRACTORS, INC.
California Contractor License #723241 A-HAZ

Site Plan

5885 Hollis Street
Emeryville, CA

Figure
2



Pacific States
ENVIRONMENTAL CONTRACTORS, INC.

Process Flow Schematic

5885 Hollis Street
Emeryville, CA

Figure
3

APPENDIX A

Psed 06036646

RUSH

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: [X] RUSH [ ] 24 HR [ ] 48 HR [ ] 72 HR [ ] 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Cory Divers
Bill To: Pacific States
Company: Pacific States Envir
11555 Dublin Blvd
Dublin, CA 94568
E-Mail: cdivers@pacificstates...
Tele: 0925 803-4337
Fax: 0925-803-4334
Project #: 605153
Project Name: DPR
Project Location: Hollis St Emeryville
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (Zinc 2mg/L)	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: pH, Electrical Conductivity	TPH-Diesel 8015 Modified	Chromium Hexavalent 218	Mercury Total 1631 RL .2	Cyanide Total 335	Comments
WalLB-3-3…	002 Emeryville	3/30/06	12:00	1	250ml	X					X																			X					
↓	↓	↓	↓	6	VOA	X						X			X																				
↓	↓	↓	↓	2	Amb	X					X																				X				
↓	↓	↓	↓	1	250ml	X							X													X									
↓	↓	↓	↓	1	250ml	X					X																					X			
↓	↓	↓	↓	3	500 mL	X						X																					X		
↓	↓	↓	↓	1	500 mL	X								X																				X	NaOH Pres.

Relinquished By:	Date:	Time:	Received By:
[signature]	3/30/06	315pm	[signature]

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____

PRESERVATION: VOAS ✓ O&G METALS ✓ OTHER ✓
APPROPRIATE CONTAINERS ✓
PERSERVED IN LAB ____

0603645

RUSH

McCAMPBELL ANALYTICAL INC.
110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620
Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☒ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Cory Divers
Bill To: Pacific States
Company: Pacific States
11555 Dublin Blvd
Dublin, CA 94568
E-Mail: CDivers@pacificstates.net
Tele: () 925-803-4333
Fax: () 925-803-4334
Project #: 605153
Project Name: DPR
Project Location: Hollis St, Emeryville
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	Ice	HCl	HNO3	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (Zinc 2 day TAT)	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Turbidity	pH, Electrical Conductivity	TPH Diesel 8015 Modified	Hardness	Chromium Hexavalent 218	Mercury Total 1631	Cyanide Total 335
WorLB-3-30-06	E Emeryville	3/30/06	12:30	1	250 mL	X					X																									
↓	Emeryville	↓	↓	1	250 mL	X					X																			X						
				6	VOA	X						X			X																X					
				2	Amb	X					X																									
				1	250 mL	X					X																					X				
				1	250 mL	X							X													X							X			
				1	250 mL	X					X																									
				3	500 mL	X						X																						X		
				1	500 mL	X								X																					X	
																																				X NaOH Pres

Relinquished By:	Date:	Time:	Received By:
Ameet Patel	3/30/06	315pm	[signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____

PRESERVATION: VOAS ✓ | O&G | METALS ✓ | OTHER ✓
APPROPRIATE CONTAINERS ✓
PERSERVED IN LAB ____

0604134 PSED

RUSH

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☒ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Ameer Patel Bill To: Pacific States
Company: Pacific States

Tele: () 925-803-4333 E-Mail: APatel@pacificstates.net
Project #: 6051SJ Fax: () 925-803-4334
Project Location: ~~[illegible]~~ Emeryville Project Name: DPR
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
WARLB-4-7-06-INF	INFLUENT	4-7-06		2	VOA	X						X		
↓	↓	↓		3	VOA	X						X		
↓	↓	↓		1	Liter	X					X			
↓	↓	↓		1	Liter	X					X			

Analysis Request

SAMPLE ID	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: EDB	Other: VOC's 8260B	Other: TAME, DIPE, ETBE, TBA	Other: ETHANOL, METHANOL	SVOC's 8270C	PAH'S	Comments
WARLB-4-7-06-INF																X						
↓																	X	X	X			
↓																				X		
↓																					X	

Relinquished By:	Date:	Time:	Received By:
[signature]	4/7/06	21:15	[signature]

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____

PRESERVATION: VOAS ✓ O&G METALS ✓ OTHER ✓
APPROPRIATE CONTAINERS ✓
PERSERVED IN LAB ____

0604135 PSED

RUSH

McCAMPBELL ANALYTICAL INC.

110 2[nd] AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☒ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: AMEET PATEL Bill To: PACIFIC STATES
Company: PACIFIC STATES ENV.

Tele: () 925-803-4333 E-Mail: APATEL@PACIFICSTATES.NET
Project #: 605153 Fax: () 925-803-4334
Project Location: EMERYVILLE Project Name: OPR
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	~~CAM-17~~ Metals (Zinc [illegible] (L)) ★	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: pH, Electrical Conductivity	TPH-Diesel 8015 Modified	Chromium Hexavalent 218	Mercury Total 1631 0.2 ng/L	Cyanide Total 335	Turbidity	Hardness	Comments
+ WARLB-4-7-06-E	EFFLUENT	4-7-06		2	VOAS	X						X			X																						
↓	↓	↓		1	250ml	X					X																										
				1	1L	X						X																		X							
				1	250ml	X							X																		X						
				1	250ml	X					X															X											
				3	500ml	X						X																				X					
					500ml	X								X																			X				
				1	250ml	X					X																							X			NaOH preserv
				1	250ml	X					X																								X		
																																				X	

★ Ni, Se, Ag, Tl, Zn, Sb, As, Be, Cd, Cr, Cu, Pb

Relinquished By:	Date:	Time:	Received By:
[signature]	4/7/06	21:15	KO
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ____ GOOD CONDITION ____ HEAD SPACE ABSENT ____ DECHLORINATED IN LAB ____

	VOAS	O&G	METALS	OTHER
PRESERVATION				

APPROPRIATE CONTAINERS ____ PERSERVED IN LAB ____

0604134

RUSH

McCAMPBELL ANALYTICAL INC.

110 2[nd] AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☒ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Ameet Patel Bill To: Pacific States
Company: Pacific States Env.
E-Mail: apatel@pacificstates.net
Tele: () 925-803-4333 Fax: () 925-803-4334
Project #: 605153 Project Name: OPR
Project Location: Emeryville
Sampler Signature: [signature]

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: EDB	VOC's 8260B	TAME, DIPE, ETBE, TBA	ETHANOL, METHANOL	SVOC's 8270C	PAH's	FISH TOXICITY	Comments
WARLB-4-7-06-E	EFFLUENT	4-7-06		2	VOA	X						X																									
↓	↓	↓		3	VOA	X						X																		X							
				1	Liter	X					X																				X	X	X				
				1	Liter	X					X																							X			
				1	Liter	X					X																								X		
																																				X	

Relinquished By:	Date:	Time:	Received By:
[signature]	4/7/06	21:15	[signature]
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t°______
GOOD CONDITION______
HEAD SPACE ABSENT______
DECHLORINATED IN LAB______

	VOAS	O&G	METALS	OTHER
PRESERVATION				

APPROPRIATE CONTAINERS______
PERSERVED IN LAB______

SEVERN TRENT **STL** 720-3721

STL San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: sflogin@stl-inc.com

Reference #: 41012

Date 5/16/06 Page 1 of 1

Report To

Attn: CORY DIVERS
Company: PACIFIC STATES ENV.
Address: 1155 DUBLIN BLVD. DUBLIN CA
Phone: 925-803-4333 Email: SOR. BELOW
Bill To: PACIFIC STATES
Sampled By: CORY DIVERS
Attn: CORY Phone: 803-4333

Analysis Request

Sample ID	Date	Time	Matrix	Pres.	TPH EPA - ☐ 8015/8021 ☒ 8260B ☒ Gas w/ ☒ BTEX ☒ MTBE	Purgeable Aromatics BTEX EPA - ☐ 8021 ☐ 8260B	TEPH EPA 8015M* ☒ Silica Gel ☒ Diesel ☐ Motor Oil ☐ Other	Fuel Tests EPA 8260B: ☐ Gas ☐ BTEX ☐ Five Oxygenates ☐ DCA, EDB ☐ Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS):	W.E.T (STLC) ☐ TCLP	Hexavalent Chromium pH (24h hold time for H_2O) ☐ ☒	Spec Cond ☐ Alkalinity ☒ TSS ☐ TDS ☐ ☐	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4			
WARLB-5-16-06-I	5/16/06	1:30	H_2O	4°C																X					
↓	↓	↓	↓	HCL	X																				
↓	↓	↓	↓	4°C			X																		
WARLB-5-16-06-E	5/16/06	1:30	H_2O	4°C																X	X				
↓	↓	↓	↓	HCL	X																				
↓	↓	↓	↓	4°C			X																		

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Project Info.

Project Name: WARHAM LAB, EMERYVILLE
Project#: 605153
PO#: 605153
Credit Card#:

Sample Receipt

of Containers: 18
Head Space:
Temp: 4°C 2°
Conforms to record:

TAT: (5 Day) 72h 48h 24h Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF ☐ Global ID
Special Instructions / Comments:
PLEASE EMAIL RESULTS TO: cdivers@pacificstates.net

See Terms and Conditions on reverse

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: 15:30 Time	Signature: 8:10 Time	Signature: Time
Printed Name: CORY DIVERS 5/16/06 Date	Printed Name: Keith Wayne 5/17/06 Date	Printed Name: Date
Company: PACIFIC STATES	Company: PACIFIC STATES ENV.	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: 15:32 Time	Signature: 0810 Time	Signature: Time
Printed Name: Keith Wayne 5/16/06 Date	Printed Name: Bryan Thomas 5/17/06 Date	Printed Name: Date
Company: PACIFIC STATES	Company: STL-SF	Company:

SEVERN TRENT STL

STL San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: sfdgn@stl-inc.com

720-4174

Reference #: L00457

Date 6/20/06 Page 1 of 2

Report To

Attn: CORY DIVERS
Company: PACIFIC STATES ENV.
Address: 11555 DUBLIN BLVD.
Phone: 925-803-4333 Email: See Below
Bill To: PACIFIC STATES
Sampled By: CORY
Attn: Cory
Phone: 803-4333

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA ☒ 8015/8021 ☐ 8260B ☒ Gas w/ ☒ BTEX ☒ MTBE	Purgeable Aromatics BTEX EPA - ☐ 802; ☐ 8260B	TEPH EPA 8015M* ☒ Silica Gel ☒ Diesel ☐ Motor Oil ☐ Other ___	Fuel Tests EPA 8260B: ☐ Gas ☐ BTEX ☐ Five Oxygenates ☐ DCA ☐ EDB ☐ Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum ☐ Total (EPA 1664)	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Low Level Metals by EPA 200.8/6020 (ICP-MS): ___	☐ W.E.T (STLC) ☐ TCLP	Hexavalent Chromium ☐ ☒ pH (24h hold time for H_2O)	Spec Cond ☐ Alkalinity ☒ ☐ TSS ☐	Anions: ☐ Cl ☐ SO4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO4	HARDNESS	TURBIDITY	HEX CHROMIUM	Number of Containers
WARLB-6-20-06-I	6/20	7:00	H_2O	4°C			X																			
				4°C															X							
				HCl	X																					
WARLB-6-20-06-E	6/20	7:00	H_2O	4°C			X																			
				4°C																			X			
				4°C																				X		
				4°C																					X	
				4°C															X	X						
				HNO_3											X											

Project Info.

Project Name: DPR-WAREHAM CAB
Project#: 605153
PO#: 605153
Credit Card#:

Sample Receipt

of Containers: 29 (TOTAL)
Head Space:
Temp:
Conforms to record:

TAT: (5 Day) 72h 48h 24h Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF ☐ Global ID ___

Special Instructions / Comments:

PLEASE EMAIL RESULTS TO:
cdivers@pacificstates.net

*STL SF reports 8015M from C_6-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature Time: 10:24	Signature Time:	Signature Time:
Printed Name: CORY DIVERS Date: 6/20/06	Printed Name Date:	Printed Name Date:
Company: PACIFIC STATES	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature Time: 1024	Signature Time:	Signature Time:
Printed Name: Joan Mullen Date: 6-20-06	Printed Name Date:	Printed Name Date:
Company: STL SF	Company:	Company:

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100457

SEVERN TRENT STL

STL San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: stlcoc@stlsf.com

720-4174

Reference #: _____

Date 6/20/06 Page 2 of 2

Report To

Attn: CORY OLIVERS
Company: PACIFIC STATES ENV.
Address: 11555 DUBLIN BLVD
Phone: 803 4333 Email: See Below
Bill To: PACIFIC STATES
Sampled By: CORY
Attn: CORY
Phone: 803-4333

Analysis Request

Sample ID	Date	Time	Mat rix	Pres erv.	TPH EPA ☐ 8015/8021 ☐ 8260B ☒ Gas w/ ☒ BTEX ☒ MTBE	Purgeable Aromatics BTEX EPA ☐ 8021 ☐ 8260B	TEPH EPA 8015M* ☐ Silica Gel ☐ Diesel ☐ Motor Oil ☐ Other ___	Fuel Tests EPA 8260B ☐ Gas ☐ BTEX ☐ Five Oxygenates ☐ DCA ☐ EDB ☐ Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GC/MS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GC/MS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum (EPA 1664) ☐ Total	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM 17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other: ___	Low Level Metals by EPA 200.8/6020 (ICP-MS): ___	☐ W.E.T (STLC) ☐ TCLP	Hexavalent Chromium ☐ ☐ pH (24h hold time for H_2O)	Spec Cond ☐ Alkalinity ☐ TSS ☐ TDS ☐	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO	CYANIDE - TOTAL	LOW LEVEL MERCURY	FISH BIO ASSAY 96 HR	Number of Containers
WARLB-6-20-06 E	6/20	7:00	H_2O	NaOH																			X			
↓	↓	↓	↓	HCl	X																					
				4°C																				X		
↓	↓	↓	↓	4°C																					X	

Page 29 of 54

Project Info.

Project Name: DPR-WAREHAM LAB
Project#: 605153
PO#: 605153
Credit Card#:

Sample Receipt

of Containers: 29 (TOTAL)
Head Space:
Temp:
Conforms to record:

TAT: 5 Day | 72h | 48h | 24h | Other:

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF
Special Instructions / Comments: ☐ Global ID _____

PLEASE EMAIL RESULTS TO:
rdivers@pacificstates.net

*STL SF reports 8015M from C_6-C_{24} (industry norm). Default for 8015B is C_{10}-C_{28}

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 10:24	Signature: Time:	Signature: Time:
Printed Name: CORY OLIVERS Date: 6/20/06	Printed Name: Date:	Printed Name: Date:
Company: PACIFIC STATES	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 1024	Signature: Time:	Signature: Time:
Printed Name: Joan Mulley Date: 6-20-06	Printed Name: Date:	Printed Name: Date:
Company: STL SF	Company:	Company:

Rev 06/04

SEVERN TRENT STL

STL San Francisco Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: sflogin@stl-inc.com

720-4698

Reference #: 100978

Date 7/21/06 Page 1 of 1

Report To

Attn: CORY DIVERS
Company: PACIFIC STATES ENV.
Address: 11555 DUBLIN BLVD. DUBLIN CA
Phone: 925-803-4333 Email: SEE BELOW
Bill To: PACIFIC STATES
Sampled By: CORY DIVERS
Attn: CORY
Phone: 803-4333

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH EPA - ☐ 8015/8021 ☒ 8260B Gas w/ ☒ BTEX ☒ MTBE	Purgeable Aromatics BTEX EPA - ☐ 8021 ☐ 8260B	TEPH EPA 8015M* ☒ Silica Gel ☒ Diesel ☐ Motor Oil ☐ Other	Fuel Tests EPA 8260B: ☐ Gas ☐ BTEX ☐ Five Oxygenates ☐ DCA, EDB ☐ Ethanol	Purgeable Halocarbons (HVOCs) EPA 8021 by 8260B	Volatile Organics GCMS (VOCs) ☐ EPA 8260B ☐ 624	Semivolatiles GCMS ☐ EPA 8270 ☐ 625	Oil and Grease ☐ Petroleum ☐ Total (EPA 1664)	Pesticides ☐ EPA 8081 ☐ 608 PCBs ☐ EPA 8082 ☐ 608	PNAs by ☐ 8270 ☐ 8310	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Low Level Metals by EPA 200.8/6020 (ICP-MS):	W.E.T (STLC) ☐ TCLP	Hexavalent Chromium pH (24h hold time for H_2O) ☐ ☒	Spec Cond ☒ ☐ Alkalinity ☐ TDS ☐ TSS	Anions: ☐ Cl ☐ SO_4 ☐ NO_3 ☐ F ☐ Br ☐ NO_2 ☐ PO_4				QUANTITY
WARLB-7-21-06-I	7/21/06	0730	H_2O	4°C																								1
↓			↓	HCl	X																							6
↓			↓	4°C			X																					2
WARLB-7-21-06-E	7/21/06	0730	H_2O	4°C																								1
↓			↓	HCl	X																		X	X				6
↓			↓	4°C			X																					2

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Project Info.

Project Name: EMERYVILLE WARHAM LAB
Project#: 605153
PO#: 605153
Credit Card#:

TAT: 5 Day | 72h | 48h | 24h

Report: ☐ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ State Tank Fund EDF ☐ Global ID

Special Instructions / Comments:
PLEASE EMAIL RESULTS TO:
CDIVERS@PACIFICSTATES.NET

See Terms and Conditions on reverse

Sample Receipt

of Containers: 18
Head Space:
Temp: 4°C T3°C
Conforms to record:
Other:

	1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature / Time	13:00		
Printed Name / Date	Avneet Patel 7/21/06		
Company	Pacific States Env.		

	1) Received by:	2) Received by:	3) Received by:
Signature / Time	1300		
Printed Name / Date	T. Bullock 7/21/06		
Company	STL-SF		