STARTUP REPORT
NPDES TREATMENT SYSTEM
UNDER NPDES CAG912002

EMERY STATION EAST
5885 HOLLIS STREET
EMERYVILLE, CA

APRIL 19, 2006

Prepared for:
DPR
Redwood City, California

Prepared by:

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

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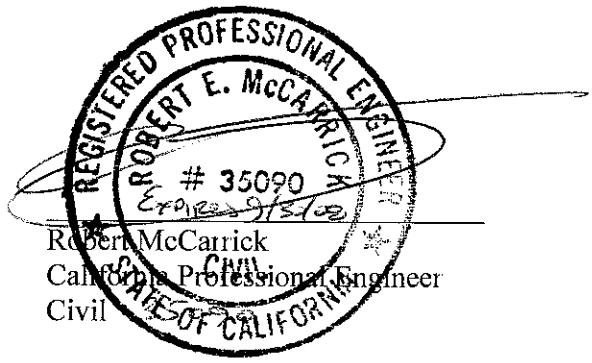
Pacific States

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

4/25/06
Date

1.0 INTRODUCTION

This Startup 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 and on the fifth day of operation, April 7, 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 and April 7, 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 the influent ranged from 7.3 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.

Field measurements revealed influent temperatures of 21.3 ^{o}C, effluent temperatures 22.1^{o}C; influent conductivity at 800 µmhos/cm and effluent conductivity 900 µmhos/cm.

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.

3.3.2 Inorganic Analyses

On March 30, 2006 and April 7, 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 and April 7, 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. 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 sample collected on April 7, 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 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 – SECOND QUARTER 2006

Sampling and analysis of influent and effluent water from the treatment system will continue during the remainder of the second quarter of 2006. Monthly samples will be collected in accordance with the schedule and procedures specified in the General Permit.

In accordance with the Self-Monitoring Program, quarterly NPDES self-monitoring reports will continue to be prepared and submitted to the Regional board. The anticipated submittal date for the Second Quarter 2006 quarterly report is July 15, 2006.

Tables

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

Date	Instantaneous Flow Rate (gpm)	System Average Flow Rate (gpm)	System Cumulative Volume (gallons)
March 29, 2006	0	0.0	0
March 30, 2006	150	0.0	0
April 3, 2006	150	1.0	5500
April 5, 2006	150	0.9	7500
April 7, 2006	150	1.2	14100
April 10, 2006	150	2.2	34300
April 21, 2006	150	8.3	262900

Total Operating Period (days)		22
Total Volume Treated & Discharged (gallons)		262,900
Average Daily Flow for Period (gallons per day)		11,950

TABLE 2
GENERAL CHEMICAL TREATMENT DATA
Wareham Labs
Emeryville, California

Sample Location	Date Sampled	Temperature (Field)	pH Field	Electrical Conductivity (Laboratory)	Turbidity
		(^{o}C)	(S.U.)	µmhos/cm	(NTUs)
Influent	3/30/2006	21	7.6	837	440
	4/7/2006	21.5	7.5	1140	735
Effluent	3/30/2006	22.1	8	852	4.1
	4/7/2006	20.5	7.9	1050	29
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	n	0.016	5.5	0.75	ND	ND	25	ND	1.5
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
Mass Discharged (g/d) 4/3/2006			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 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
Effluent	3/30/2006	ND	ND	ND	ND	ND	ND	ND
	4/7/2006	ND	ND	ND	ND	ND	ND	ND
Effluent Limitations		50	50	1	5	5	5	5

Notes:

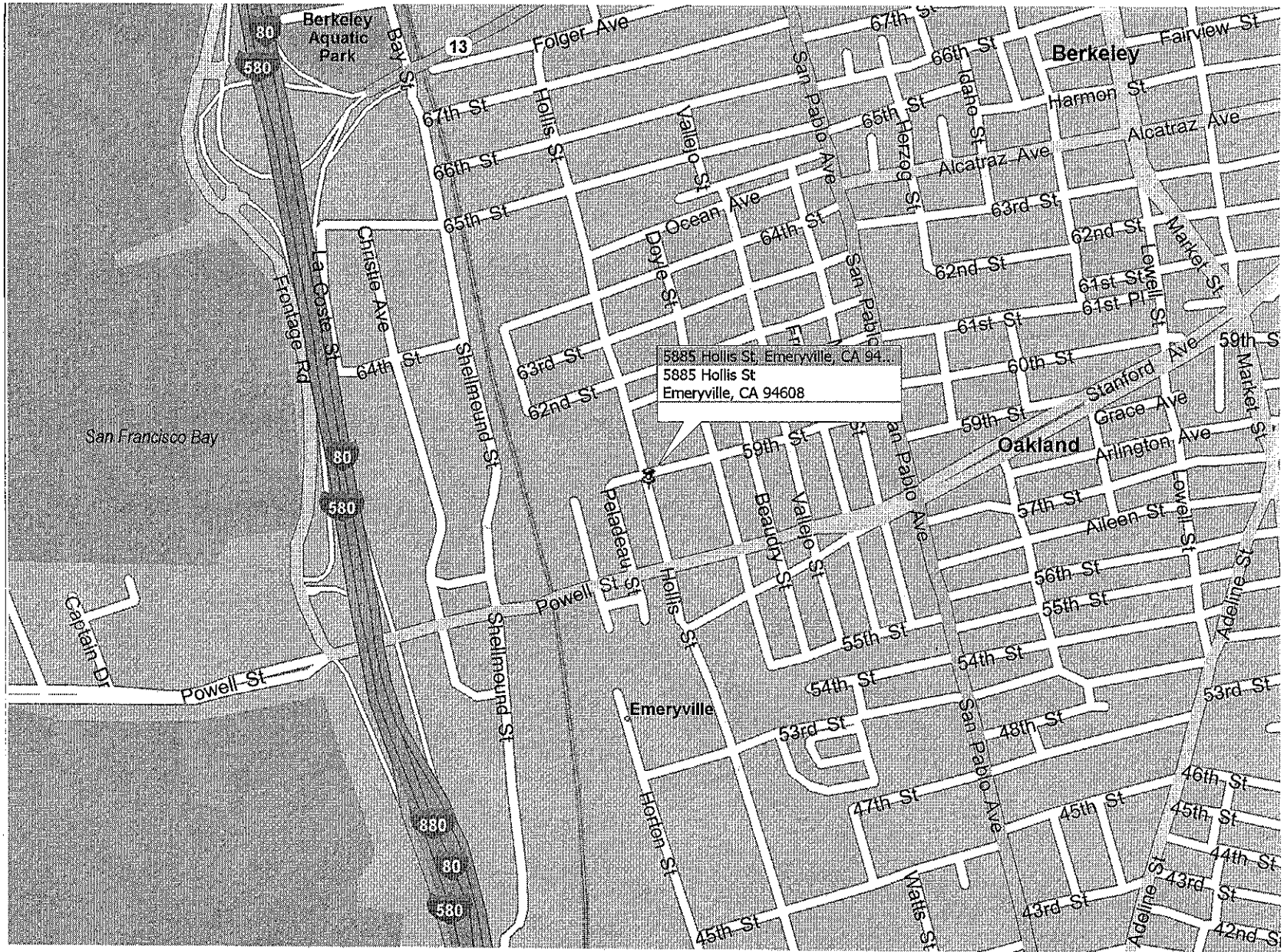
µg/l – Micrograms per liter
TPH-g – Total petroleum hydrocarbons as gasoline
TPH-d – Total petroleum hydrocarbons as diesel

[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

Figures



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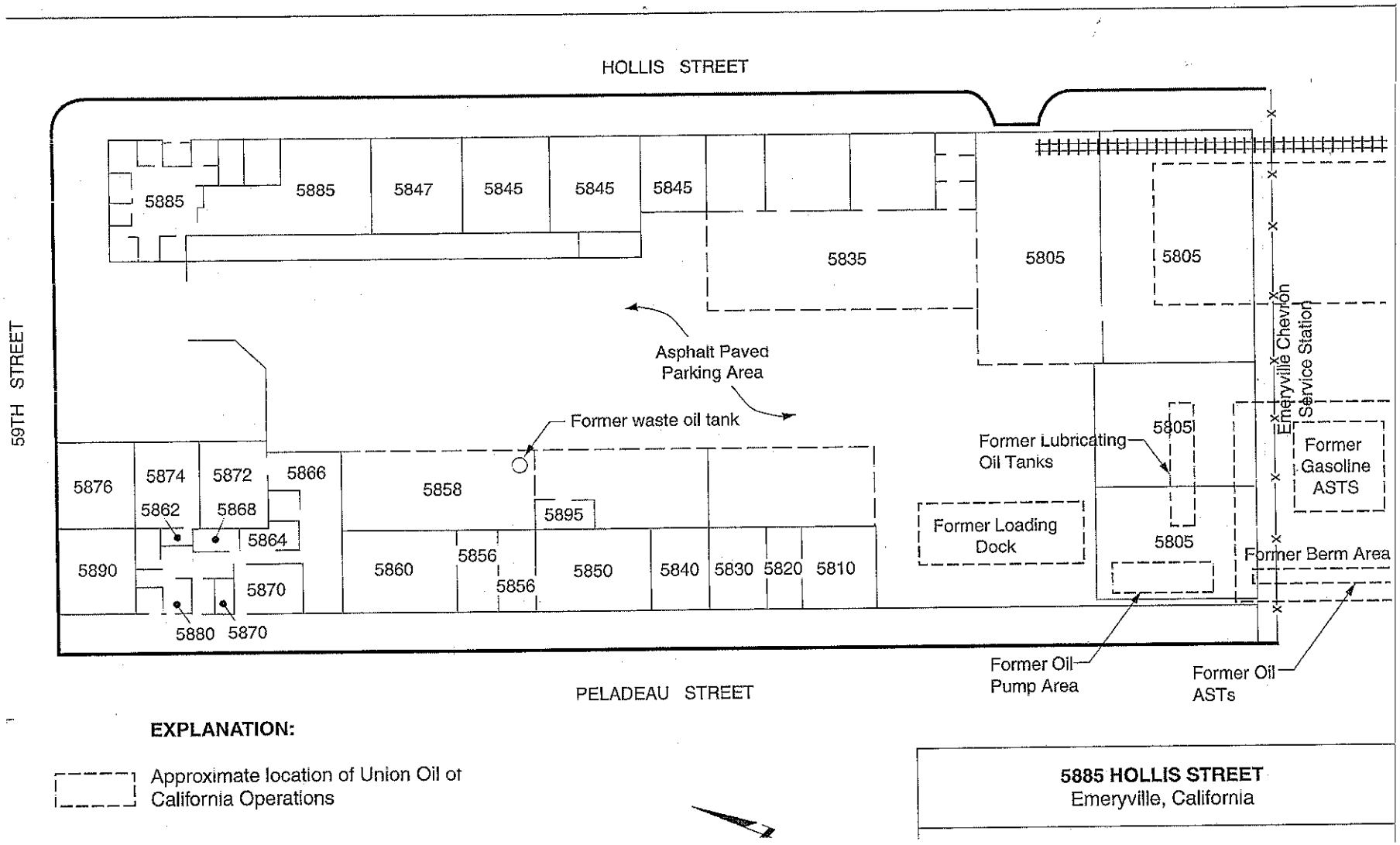
Site Location Map

5885 Hollis Street
Emeryville, CA

Figure
1



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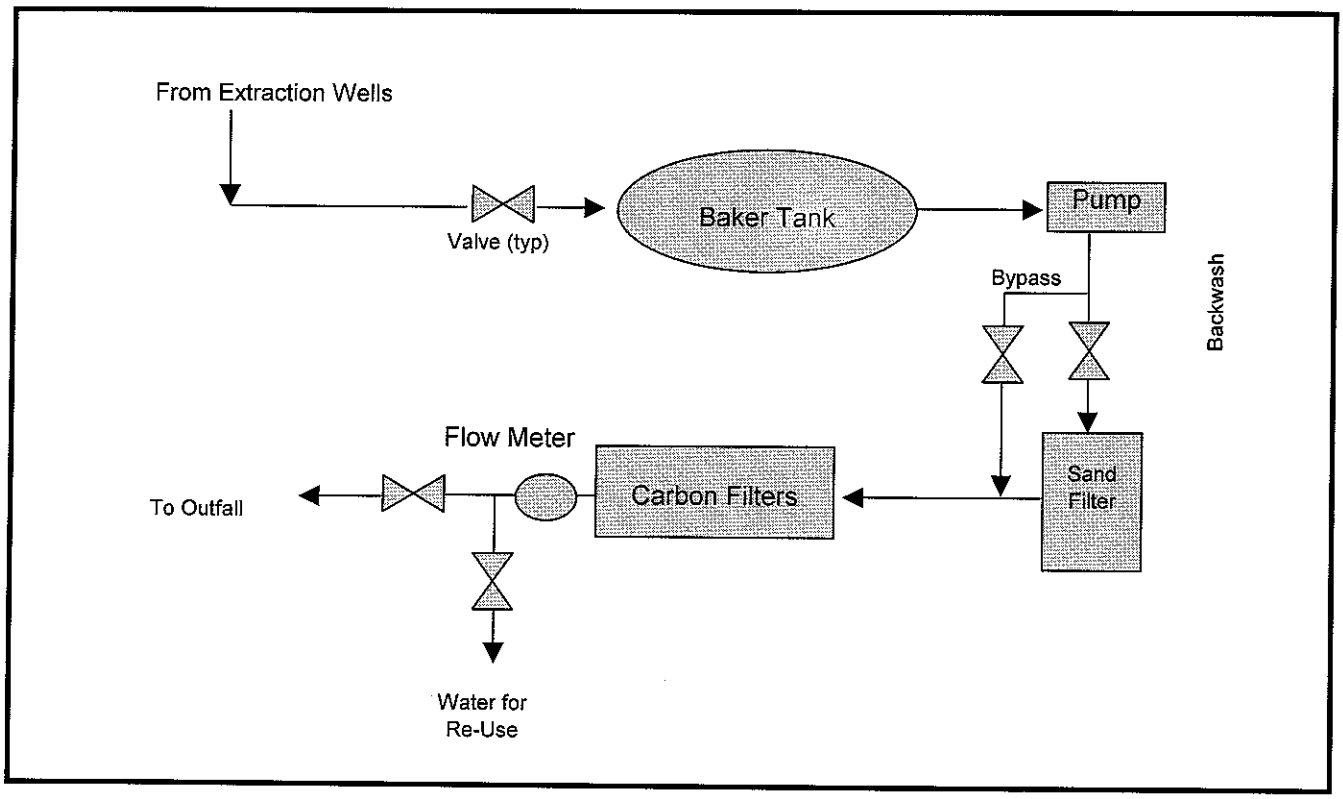
ENVIRONMENTAL CONTRACTORS, INC.
California Contractor License #723241 A-HAZ

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: (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	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 2 mg/L)	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: pH, Electrical Conductivity	Other: TPH-Diesel 8015 Modified	Other: Chromium Hexavalent 218	Other: Mercury Total 1631 RL .2 ng/L	Other: Cyanide Total 335	Comments
WaLB-3-30-06-I	Emeryville	3/30/06	12:00	1	250 ml	X					X																			X					
↓	↓	↓	↓	6	VOA	X						X			X																				
				2	Amb	X					X																				X				
				1	250 ml	X							X													X									
				1	250 ml	X					X																					X			
				3	500 ml	X						X																					X		
				1	500 ml	X								X																				X	NaOH Pres.

Relinquished By:	Date:	Time:	Received By:
Ameet Patel	3/30/06	3:15pm	[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 ____

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0603646 **ClientID: PSED** **EDF: NO**

Report to:
Cory Divers
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

TEL: 925-803-4333
FAX: 925-803-4334
ProjectNo: #605153; DPR
PO:

Bill to:
Accounts Payable
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

Requested TAT: 5 days

Date Received: 03/30/2006
Date Printed: 03/30/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0603646-001	WarLB-3-30-06-I	Water	3/30/06 1:00:00 PM	☐	E	B	H	A	F	C	C	D				

Test Legend:

1	218_6_W	2	CAM17(T)MS_W	3	CN_TOTAL_W	4	G-MBTEX_W	5	HGPSA1_W
6	PH_W	7	SC_W	8	TPH(D)_W	9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.

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

Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0603646

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	WarLB-3-30-06-I	W	200,f	ND	1.4	0.51	ND	ND	1	103
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/31/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0603646

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0603646-001D	WarLB-3-30-06-I	W	64,b	1	102

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
		Date Received: 03/30/06
11555 Dublin Blvd	Client Contact: Cory Divers	Date Extracted: 03/30/06
Dublin, CA 94568	Client P.O.:	Date Analyzed: 03/30/06

Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0603646-001B					
Client ID	WarLB-3-30-06-1					
Matrix	W				S	W
Extraction Type	TTLC				mg/kg	µg/L

ICP-MS Metals, Concentration*

Analytical Method: E200.8 Extraction Method: E200.8 Work Order: 0603646

Dilution Factor	1				1	1
Antimony	0.81				NA	0.5
Arsenic	2.1				NA	0.5
Beryllium	ND				NA	0.5
Cadmium	ND				NA	0.25
Chromium	15				NA	0.5
Copper	6.2				NA	0.5
Lead	1.3				NA	0.5
Nickel	10				NA	0.5
Selenium	0.96				NA	0.5
Silver	ND				NA	0.19
Thallium	ND				NA	0.5
Zinc	21				NA	2.0
%SS:	117					

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No 1644

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Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

Hexachrome by IC*

Analytical Method: E218.6 Work Order: 0603646

Lab ID	Client ID	Matrix	Hexachrome	DF
0603646-001E	WarLB-3-30-06-I	W	77	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to matrix interference; p) see attached narrative

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Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

Specific Conductivity*

Analytical Method: SM2510B Work Order: 0603646

Lab ID	Client ID	Matrix	Specific Conductivity	DF
0603646-001C	WarLB-3-30-06-I	W	837 @ 25°C	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

* Salinity (mg/L) = 0.64 * S C (µmhos/cm @ 25°C) per SSSA volume 5 part 3.

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11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

pH*

Analytical Method: SM4500H+B Work Order: 0603646

Lab ID	Client ID	Matrix	pH
0603646-001C	WarLB-3-30-06-I	W	7.30 @ 14.8°C

Method Accuracy and Reporting Units		
	W	±0.05, pH units @ °C
	S	NA

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	Client P.O.:	Date Analyzed: 03/30/06

Cyanide, Total*

Analytical Method: E335.3 / Kelada-01 Work Order: 0603646

Lab ID	Client ID	Matrix	Total Cyanide	DF
0603646-001H	WarI B-3-30-06-I	W	ND	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	2.0 µg/L	
	S	NA	

* water samples are reported in ug/L; soil/sludge/solid samples in mg/kg; wipe samples in µg/wipe.
^ All water samples are screened for sulfide interference prior to analysis and treated to remove sulfide if it is present. All soil samples are treated to remove sulfide, nitrate and nitrite interference prior to analysis.

i) liquid sample contains greater than ~1 vol. % sediment; j) reporting limit raised due to high sediment content/matrix interference; m) sample treated to remove interfering sulfide per E335.4; n) sample treated to remove interfering nitrate and nitrite per E335.4; p) see attached narrative

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11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/31/06

Mercury by CVAF*

Extraction method: E1631 Analytical methods: E1631 Work Order: 0603646

Lab ID	Client ID	Matrix	Extraction	Mercury	DF	% SS
0603646-001F	WarLB-3-30-06-I	W	TTLC	15	1	N/A
0603646-001G	WarLB-3-30-06-I/Blank	W	TTLC	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	0.2	ng/L
	S	TTLC	NA	mg/kg

*water samples are reported in ng/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Angela Rydelius, Lab Manager

0603645

McCAMPBELL ANALYTICAL INC.

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PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

RUSH

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
Tele: () 925-803-4333 E-Mail: CDivers@pacificstates.net
Fax: () 925-803-4334
Project #: 605153 Project Name: DPR
Project Location: Hollis St. Emeryville
Sampler 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 (2 sets)	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: TPH biodily	pH, Electrical Conductivity	TPH Diesel 8015 Modified	Hardness	Chromium Hexavalent 218	Mercury Total 1631	Cyanide Total 335	Comments
MW-LB-3-30-06-E	Emeryville	3/30/06	12:30	1	250 mL	X					X																		X							
	Emeryville			1	250 mL	X					X																			X						
				6	VOA	X						X			X															X						
				2	Amb	X					X																				X					
				1	250 mL	X					X																					X				
				1	250 mL	X							X																				X			
				1	250 mL	X					X																X									
				3	500 mL	X						X																					X			
				1	500 cm	X								X																			X			

Relinquished By: Ameet Patel Date: 3/30/06 Time: 3:15pm Received By:
Relinquished By: Date: Time: Received By:
Relinquished By: Date: Time: Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
PRESERVATION APPROPRIATE ✓
CONTAINERS
PERSERVED IN LAB

VOAS	O&G	METALS	OTHER
✓		✓	

NaOH @ pHes

Mar 31 2006 2:44PM McCAMPBELL ANALYTICAL 9257984612 P.13

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0603645 **ClientID: PSED** **EDF: NO**

Report to:
Cory Divers
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568
TEL: 925-803-4333
FAX: 925-803-4334
ProjectNo: #605153; DPR
PO:

Bill to:
Accounts Payable
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

Requested TAT: 1 day
Date Received: 03/30/2006
Date Printed: 03/30/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0603645-001	WorLB-3-30-06-E	Water	3/30/06 12:30:00	☐	E	F	G	A	E	H	D	E	D	B	C	

Test Legend:

1	218_6_W	2	CAM17(T)MS_W	3	CN_TOTAL_W	4	G-MBTEX_W	5	HARDMS_DISS
6	HGPSA1_W	7	PH_W	8	PRDISSOLVED	9	SC_W	10	TPH(D)_W
11	TURBIDITY_W	12							

Prepared by: Maria Venegas

Comments: 24hr Rush

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
		Date Received: 03/30/06
11555 Dublin Blvd	Client Contact: Cory Divers	Date Extracted: 03/30/06
Dublin, CA 94568	Client P.O.:	Date Analyzed: 03/30/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0603645

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	WorLB-3-30-06-E	W	ND	ND	ND	ND	ND	ND	1	111
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas) m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

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Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0603645

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0603645-001B	WorLB-3-30-06-E	W	ND	1	101

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P O :	Date Analyzed: 03/30/06

Hexachrome by IC*

Analytical Method: E218.6 Work Order: 0603645

Lab ID	Client ID	Matrix	Hexachrome	DF
0603645-001E	WorLB-3-30-06-E	W	ND	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak.

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) sample diluted due to matrix interference; p) see attached narrative.

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Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O :	Date Analyzed: 03/30/06

pH*

Analytical Method: SM4500H+B Work Order: 0603645

Lab ID	Client ID	Matrix	pH
0603645-001D	WorLB-3-30-06-E	W	8.09 @ 17.5°C

Method Accuracy and Reporting Units		
	W	±0.05, pH units @ °C
	S	NA

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	Client P.O.:	Date Analyzed: 03/30/06

Specific Conductivity*

Analytical Method: SM2510B Work Order: 0603645

Lab ID	Client ID	Matrix	Specific Conductivity	DF
0603645-001D	WorLB-3-30-06-E	W	852 @ 25 0°C	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

* Salinity (mg/L) = 0.64 * S C (µmhos/cm @ 25°C) per SSSA volume 5 part 3

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	Client P.O.:	Date Analyzed: 03/30/06

Turbidity

Analytical Method: SM2130B Work Order: 0603645

Lab ID	Client ID	Matrix	Turbidity	DF
0603645-001C	WorLB-3-30-06-E	W	4.10	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.1 NTU	
	S	NA	

a) presence of debris / coarse sediment.

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Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

Cyanide, Total*

Analytical Method: E335.3 / Kelada-01 Work Order: 0603645

Lab ID	Client ID	Matrix	Total Cyanide	DF
0603645-001G	WorLB-3-30-06-E	W	ND	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	2.0 µg/L	
	S	NA	

* water samples are reported in ug/L; soil/sludge/solid samples in mg/kg; wipe samples in µg/wipe.
^ All water samples are screened for sulfide interference prior to analysis and treated to remove sulfide if it is present. All soil samples are treated to remove sulfide, nitrate and nitrite interference prior to analysis.

i) liquid sample contains greater than ~1 vol. % sediment; j) reporting limit raised due to high sediment content/matrix interference; m) sample treated to remove interfering sulfide per E335.4; n) sample treated to remove interfering nitrate and nitrite per E335.4; p) see attached narrative

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
		Date Received: 03/30/06
11555 Dublin Blvd	Client Contact: Cory Divers	Date Extracted: 03/30/06
Dublin, CA 94568	Client P.O.:	Date Analyzed: 03/31/06

Metals*

					Reporting Limit for DF = 1; ND means not detected above the reporting limit	
Lab ID	0603645-001F					
Client ID	WorLB-3-30-06-E					
Matrix	W				S	W
Extraction Type	ITLC				mg/kg	µg/L

ICP-MS Metals, Concentration*

Analytical Method: E200.8 Extraction Method: E200.8 Work Order: 0603645

Dilution Factor	1				1	1
Antimony	1.3				NA	0.5
Arsenic	10				NA	0.5
Beryllium	ND				NA	0.5
Cadmium	ND				NA	0.25
Chromium	0.72				NA	0.5
Copper	52				NA	0.5
Lead	9.4				NA	0.5
Nickel	6.5				NA	0.5
Selenium	0.97				NA	0.5
Silver	ND				NA	0.19
Thallium	ND				NA	0.5
Zinc	86				NA	2.0
%SS:	120					

Comments					

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/30/06

Hardness*

Extraction method: E200.8 Analytical methods: SM2340B Work Order: 0603645

Lab ID	Client ID	Matrix	Extraction	Hardness	DF	% SS
0603645-001E	WorLB-3-30-06-E	W	DISS.	260	10	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	DISS.	10	mg/L
	S	TTLC	NA	mg/kg

*water samples are reported in mg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 03/30/06
11555 Dublin Blvd		Date Received: 03/30/06
Dublin, CA 94568	Client Contact: Cory Divers	Date Extracted: 03/30/06
	Client P.O.:	Date Analyzed: 03/31/06

Mercury by CVAF*

Extraction method: E1631 Analytical methods: E1631 Work Order: 0603645

Lab ID	Client ID	Matrix	Extraction	Mercury	DF	% SS
0603645-001H	WorLB-3-30-06-E	W	TTLC	3.5	1	N/A
0603645-001I	WorLB-3-30-06-E/Blank	W	TTLC	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	0.2	ng/L
	S	TTLC	NA	mg/kg

*water samples are reported in ng/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

0604135 PSED

McCAMPBELL ANALYTICAL INC.
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Telephone: (925) 798-1620 Fax: (925) 798-1622

RUSH

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: APEET 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 2mg/L) ★	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: pH, ELECT CONDUCTIVITY	TPH-DIESEL 8015 MODIFIED	CHROMIUM HEXAVALENT 218	MERCURY TOTAL 1631 0.2 ng/L	CYANIDE TOTAL 335	TURBIDITY	HARDNESS	Comments
+ WARLB-4-7a-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					
				1	500ml	X								X																			X				
				1	250ml	X					X																							X			NaOH PRESERV
				1	250ml	X					X																								X		
																																				X	

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

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

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

PRESERVATION ______ APPROPRIATE CONTAINERS ______ PERSERVED IN LAB ______

VOAS	O&G	METALS	OTHER

060473W

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: AMEET PATEL Bill To: PACIFIC STATES

Company: PACIFIC STATES ENV.

E-Mail: APATEL@PACIFICSTATES.NET

Tele: () 925-803-4883 Fax: () 925-803-4334

Project #: 605153 Project Name: OPR

Project Location: EMERYVILLE

Sampler 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
WAELR-4-7-06-E	EFFLUENT	4-7-06		2	VOA	X						X		
				3	VOA	X						X		
				1	LITER	X					X			
				1	LITER	X					X			
				1	LITER	X					X			

Analysis Request	Other	Comments
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		
EDB	X	
VOC's 8260	X	
TBA, DIPE, ETBE,	X	
ETHANOL, METHANOL	X	
SVOC's 8270		X
PAH's		X
FISH TOXICITY		X

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

ICE/t° _____ VOAS | O&G | METALS | OTHER

GOOD CONDITION _____ PRESERVATION APPROPRIATE _____

HEAD SPACE ABSENT _____ CONTAINERS _____

DECHLORINATED IN LAB _____ PERSERVED IN LAB _____

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0604135 **ClientID: PSED** **EDF: NO**

Report to:
Ameer Patel
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

TEL: 925-803-4333
FAX: 925-803-4334
ProjectNo: #605153; DPR
PO:

Bill to:
Accounts Payable
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

Requested TAT: 5 days

Date Received: 04/07/2006
Date Printed: 04/07/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0604135-001	BLANK-1	Water	04/07/2006	☐								G				
0604135-001	BLANK-2	Water	04/07/2006	☐								H				
0604135-001	WALRB-4/7/06-E	Water	04/07/2006	☐	E					A		F	B	C		C
0604135-001	WARLB-4-7-06-E	Water	04/07/2006	☐		M	L	I	N		K				K	

Test Legend:

1	218_6_W	2	8270D_W	3	9-OXYS_W	4	CN_TOTAL_W	5	FISHEFF_W
6	G-MBTEX_W	7	HARDMS_DISS	8	HGPSA1_W	9	METALSMS_W	10	PH_W
11	PRDISSOLVED	12	SC_W						

Prepared by: Kathleen Owen

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0604135 **ClientID: PSED** **EDF: NO**

Report to:
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ProjectNo: #605153; DPR
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Bill to:
Accounts Payable
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

Requested TAT: 5 days
Date Received: 04/07/2006
Date Printed: 04/07/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					13	14	15	16	17	18	19	20	21	22	23	24
0604135-001	BLANK-1	Water	04/07/2006	☐												
0604135-001	BLANK-2	Water	04/07/2006	☐												
0604135-001	WALRB-4/7/06-E	Water	04/07/2006	☐	D											
0604135-001	WARLB-4-7-06-E	Water	04/07/2006	☐		J										

Test Legend:

13	TPH(D)_W	14	TURBIDITY_W	15		16		17	
18		19		20		21		22	
23		24							

Prepared by: Kathleen Owen

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.

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Website: www.mccampbell.com E-mail: main@mccampbell.com

Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/08/06
	Client P.O.:	Date Analyzed: 04/08/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0604135

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	WALRB-4/7/06-E	W	ND	ND	ND	ND	ND	ND	1	108

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P O :	Date Analyzed: 04/07/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0604135

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0604135-001D	WALRB-4/7/06-E	W	ND	1	92

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P.O.:	Date Analyzed: 04/07/06

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0604135

Lab ID	0604135-001L					Reporting Limit for DF =1	
Client ID	WARLB-4-7-06-E						
Matrix	W						
DF	1					S	W
Compound	**Concentration**					ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND					NA	0.5
t-Butyl alcohol (TBA)	ND					NA	5.0
1,2-Dibromoethane (EDB)	ND					NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND					NA	0.5
Diisopropyl ether (DIPE)	ND					NA	0.5
Ethanol	ND					NA	50
Ethyl tert-butyl ether (ETBE)	ND					NA	0.5
Methanol	ND					NA	500
Methyl-t-butyl ether (MTBE)	ND					NA	0.5
Surrogate Recoveries (%)							
%SS1:	105						
Comments							

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

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

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P O :	Date Analyzed: 04/10/06

Semi-Volatile Organics by GC/MS (Basic Target List)*

Extraction Method: SW3510C Analytical Method: SW8270D Work Order: 0604135

Lab ID	0604135-001M
Client ID	WARLB-4-7-06-E
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND	1.0	10	Acenaphthylene	ND	1.0	10
Acetochlor	ND	1.0	10	Anthracene	ND	1.0	10
Benzidine	ND	1.0	50	Benzoic Acid	ND	1.0	50
Benzo(a)anthracene	ND	1.0	10	Benzo(b)fluoranthene	ND	1.0	10
Benzo(k)fluoranthene	ND	1.0	10	Benzo(g,h,i)perylene	ND	1.0	10
Benzo(a)pyrene	ND	1.0	10	Benzyl Alcohol	ND	1.0	20
1,1-Biphenyl	ND	1.0	10	Bis (2-chloroethoxy) Methane	ND	1.0	10
Bis (2-chloroethyl) Ether	ND	1.0	10	Bis (2-chloroisopropyl) Ether	ND	1.0	10
Bis (2-ethylhexyl) Adipate	ND	1.0	10	Bis (2-ethylhexyl) Phthalate	ND	1.0	10
4-Bromophenyl Phenyl Ether	ND	1.0	10	Butylbenzyl Phthalate	ND	1.0	10
4-Chloroaniline	ND	1.0	20	4-Chloro-3-methylphenol	ND	1.0	10
2-Chloronaphthalene	ND	1.0	10	2-Chlorophenol	ND	1.0	10
4-Chlorophenyl Phenyl Ether	ND	1.0	10	Chrysene	ND	1.0	10
Dibenzo(a,h)anthracene	ND	1.0	10	Dibenzofuran	ND	1.0	10
Di-n-butyl Phthalate	ND	1.0	10	1,2-Dichlorobenzene	ND	1.0	10
1,3-Dichlorobenzene	ND	1.0	10	1,4-Dichlorobenzene	ND	1.0	10
3,3-Dichlorobenzidine	ND	1.0	20	2,4-Dichlorophenol	ND	1.0	10
Diethyl Phthalate	ND	1.0	10	2,4-Dimethylphenol	ND	1.0	10
Dimethyl Phthalate	ND	1.0	10	4,6-Dinitro-2-methylphenol	ND	1.0	50
2,4-Dinitrophenol	ND	1.0	50	2,4-Dinitrotoluene	ND	1.0	10
2,6-Dinitrotoluene	ND	1.0	10	Di-n-octyl Phthalate	ND	1.0	10
1,2-Diphenylhydrazine	ND	1.0	10	Fluoranthene	ND	1.0	10
Fluorene	ND	1.0	10	Hexachlorobenzene	ND	1.0	10
Hexachlorobutadiene	ND	1.0	10	Hexachlorocyclopentadiene	ND	1.0	50
Hexachloroethane	ND	1.0	10	Indeno (1,2,3-cd) pyrene	ND	1.0	10
Isophorone	ND	1.0	10	2-Methylnaphthalene	ND	1.0	10
2-Methylphenol (o-Cresol)	ND	1.0	10	3 &/or 4-Methylphenol (m,p-Cresol)	ND	1.0	10
Naphthalene	ND	1.0	10	2-Nitroaniline	ND	1.0	50
3-Nitroaniline	ND	1.0	50	4-Nitroaniline	ND	1.0	50
Nitrobenzene	ND	1.0	50	2-Nitrophenol	ND	1.0	50
4-Nitrophenol	ND	1.0	50	N-Nitrosodiphenylamine	ND	1.0	10
N-Nitrosodi-n-propylamine	ND	1.0	10	Pentachlorophenol	ND	1.0	50
Phenanthrene	ND	1.0	10	Phenol	ND	1.0	10
Pyrene	ND	1.0	10	1,2,4-Trichlorobenzene	ND	1.0	10
2,4,5-Trichlorophenol	ND	1.0	10	2,4,6-Trichlorophenol	ND	1.0	10

Surrogate Recoveries (%)

%SS1:	111	%SS2:	115
%SS3:	103	%SS4:	87
%SS5:	116	%SS6:	90

Comments:

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

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

#) surrogate diluted out of range; &) low or no surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) sample diluted due to high organic content/matrix interference

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/10/06
	Client P.O.:	Date Analyzed: 04/10/06

Cyanide, Total*

Analytical Method: E335.3 / Kelada-01 Work Order: 0604135

Lab ID	Client ID	Matrix	Total Cyanide	DF
0604135-001I	WARLB-4-7-06-E	W	ND	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	2 0 µg/L	
	S	NA	

* water samples are reported in ug/L; soil/sludge/solid samples in mg/kg; wipe samples in µg/wipe.
^ All water samples are screened for sulfide interference prior to analysis and treated to remove sulfide if it is present. All soil samples are treated to remove sulfide, nitrate and nitrite interference prior to analysis.

i) liquid sample contains greater than ~1 vol. % sediment; j) reporting limit raised due to high sediment content/matrix interference; m) sample treated to remove interfering sulfide per E335 4; n) sample treated to remove interfering nitrate and nitrite per E335 4; p) see attached narrative

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	Client P O :	Date Analyzed: 04/08/06

Hexachrome by IC*

Analytical Method: E218.6 Work Order: 0604135

Lab ID	Client ID	Matrix	Hexachrome	DF
0604135-001E	WALRB-4/7/06-E	W	ND	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.2 µg/L	
	S	NA	

* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to matrix interference; p) see attached narrative

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
		Date Received: 04/07/06
11555 Dublin Blvd	Client Contact: Ameet Patel	Date Extracted 04/07/06
Dublin, CA 94568	Client P.O.:	Date Analyzed 04/10/06

Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0604135-001B					
Client ID	WALRB-4/7/06-E				S	W
Matrix	W				mg/kg	µg/L
Extraction Type	TTLC					

ICP-MS Metals, Concentration*

Analytical Method: E200.8 Extraction Method: E200.8 Work Order: 0604135

Dilution Factor	1				i	1
Antimony	1.3				NA	0.5
Arsenic	7.5				NA	0.5
Beryllium	ND				NA	0.5
Cadmium	ND				NA	0.25
Chromium	7.6				NA	0.5
Copper	8.0				NA	0.5
Lead	2.4				NA	0.5
Nickel	10				NA	0.5
Selenium	1.1				NA	0.5
Silver	ND				NA	0.19
Thallium	ND				NA	0.5
Zinc	21				NA	5.0
%SS:	117					

Comments

*water samples are reported in ug/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery; n) results are reported on a dry weight basis; p) see attached narrative.

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	Client P.O.:	Date Analyzed: 04/10/06

Mercury by CVAF*

Extraction method: E1631 Analytical methods: E1631 Work Order: 0604135

Lab ID	Client ID	Matrix	Extraction	Mercury	DF	% SS
0604135-001F	WALRB-4/7/06-E	W	TTLC	2.8	1	N/A
0604135-001G	BLANK-1	W	TTLC	ND	1	N/A
0604135-001H	BLANK-2	W	TTLC	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	0.5	ng/L
	S	TTLC	NA	mg/kg

*water samples are reported in ng/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative

DHS Certification No 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P.O.:	Date Analyzed: 04/07/06

Turbidity

Analytical Method: SM2130B

Work Order: 0604135

Lab ID	Client ID	Matrix	Turbidity	DF
0604135-001J	WARLB-4-7-06-E	W	29.0	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0.1 NTU	
	S	NA	

a) presence of debris / coarse sediment.

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	Client P O :	Date Analyzed: 04/07/06

pH*

Analytical Method: SM4500H+B

Work Order: 0604135

Lab ID	Client ID	Matrix	pH
0604135-001C	WALRB-4/7/06-E	W	8 10 @ 15 6°C

Method Accuracy and Reporting Units	W	±0 05, pH units @ °C
	S	NA

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Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P.O.:	Date Analyzed: 04/10/06

Hardness*

Extraction method: E200.8 Analytical methods: SM2340B Work Order: 0604135

Lab ID	Client ID	Matrix	Extraction	Hardness	DF	% SS
0604135-001K	WARLB-4-7-06-E	W	DISS	290	100	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	DISS	1.0	mg/L
	S	TTLC	NA	mg/kg

*water samples are reported in mg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative

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Pacific States Environmental	Client Project ID: #605153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
	Client Contact: Ameet Patel	Date Extracted: 04/10/06-04/14/06
Dublin, CA 94568	Client P.O.:	Date Analyzed: 04/12/06-04/16/06

CA Title 22 Acute Fish Bioassay Screen Test for Hazardous Waste

Extraction Method: CA DFG (Polinsi & Miller) Analytical Method: CA DFG (Polinsi & Miller) Work Order: 0604135

Lab ID	0604135-001N	Species	Pimephales Promelas	Avg. Length	3.563
Client ID	WARLB-4-7-06-E	Common Name	Fathead Minnows	Avg. Weight	0.4158
Matrix	Water			Max Weight	0.465
Control Water	Soft Synthetic Water			Min Weight	0.376

Concentration	Survival		Dissolved O2 (mg/L)		pH		Temperature (°C)		Comments	
	A	B	A	B	A	B	A	B		
Control	10	10	8.91	8.78	7.61	7.60	20.0	20.1	Analyst:	SC
250mg/L	10	10	8.33	8.37	7.34	7.35	20.7	20.8		
500mg/L	10	10	8.40	8.47	7.36	7.37	20.8	20.8	Date:	4/12/2006
750mg/L	10	10	8.38	8.49	7.26	7.27	20.8	20.9	Time:	4:30 PM
Control	10	10	8.31	8.26	7.11	7.10	20.6	21.0	Analyst:	CK
250mg/L	10	10	8.10	8.25	7.06	7.07	20.8	20.5		
500mg/L	10	10	8.29	8.26	7.18	7.17	20.6	20.8	Date:	4/13/2006
750mg/L	10	10	8.03	8.17	7.03	7.04	21.0	20.8	Time:	4:30 PM
Control	10	10	7.15	7.17	7.20	7.19	20.6	20.4	Analyst:	SC
250mg/L	10	10	7.93	7.94	6.84	6.85	20.8	20.9		
500mg/L	10	10	7.79	7.66	6.88	6.87	20.9	20.8	Date:	4/14/2006
750mg/L	10	10	7.58	7.64	6.83	6.84	20.9	21.0	Time:	4:30 PM
Control	10	10	6.56	6.58	7.22	7.21	20.4	20.5	Analyst:	SC
250mg/L	10	10	6.99	6.97	6.97	6.98	20.4	20.5		
500mg/L	10	10	6.19	6.10	7.00	7.01	20.5	20.6	Date:	4/15/2006
750mg/L	10	10	5.65	5.60	7.06	7.05	20.4	20.5	Time:	4:30 PM
Control	10	10	6.10	6.12	7.09	7.08	19.4	19.3	Analyst:	SC
250mg/L	10	10	5.63	5.67	7.14	7.13	19.4	19.5		
500mg/L	10	10	5.65	5.70	7.20	7.19	19.5	19.4	Date:	4/16/2006
750mg/L	10	10	4.29	4.30	7.16	7.17	19.4	19.5	Time:	4:30 PM

	Initial		Final	
	Control	750 mg/L	Control	750 mg/L
Hardness (mg/L as CaCO3)	39.95	40.49	38.63	45.27
Alkalinity (mg/L as CaCO3)	33.36	38.92	46.24	41.68
Conductivity (uS/cm)	233.3	237.4	178.2	177.5

Result: This sample passed the Hazardous Waste toxicity test since the final mortality rate in the 750mg/L sample after 96hrs. is ≤40%

96 LC50: N/A
95% Upper Confident Limit: N/A
LC50 Method: N/A
95% Lower Confident Limit: N/A

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	Client P.O :	Date Analyzed: 04/07/06

Specific Conductivity*

Analytical Method: SM2510B

Work Order: 0604135

Lab ID	Client ID	Matrix	Specific Conductivity	DF
0604135-001C	WALRB-4/7/06-E	W	1050 @ 25 0°C	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

* Salinity (mg/L) = 0.64 * S C (µmhos/cm @ 25°C) per SSSA volume 5 part 3.

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Angela Rydelius, Lab Manager

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 Attel Bill To: Pacific States

Company: Pacific States

E-Mail: AAttel@pacificstates.net

Tele: () 925-803-4735 Fax: () 925-803-7334

Project #: 605153 Project Name: DPR

Project Location: ~~Emeryville~~ EMERYVILLE

Sampler 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
MARB-4-7-06-1	INFLUENT	4-7-06		2	VOA	X						X		
				3	VOA	X						X		
				1	LITER	X					X			
				1	LITER	X					X			

Analysis Request																Other				Comments
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	EDB	VOC's 8260	TBME, DIPE, ETBE, TBA	ETHANOL, METHANOL	PVOC's 8270c	PAH's
															X					
																X	X	X		
																			X	
																				X

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

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

PRESERVATION APPROPRIATE ✓ CONTAINERS ✓

VOAS	O&G	METALS	OTHER
✓		✓	

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0604134 **ClientID: PSED** **EDF: NO**

Report to:
Ameer Patel
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568
TEL: 925-803-4333
FAX: 925-803-4334
ProjectNo: #6055153; DPR
PO:

Bill to:
Accounts Payable
Pacific States Environmental
11555 Dublin Blvd
Dublin, CA 94568

Requested TAT: 1 day
Date Received: 04/07/2006
Date Printed: 04/07/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0604134-001	BLANK-1	Water	04/07/2006	☐						G						
0604134-001	BLANK-2	Water	04/07/2006	☐						H						
0604134-001	WARLB-4-7-06-I	Water	04/07/2006	☐	E	K	J	I	A	F	B	C	C	D		

Test Legend:

1	218_6_W	2	8270D_W	3	9-OXYS_W	4	CN_TOTAL_W	5	G-MBTEX_W
6	HGPSA1_W	7	METALSMS_W	8	PH_W	9	SC_W	10	TPH(D)_W
11		12							

Prepared by: Kathleen Owen

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

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Pacific States Environmental	Client Project ID: #6055153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/08/06
	Client P.O :	Date Analyzed: 04/08/06

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0604134

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	WARLB-4-7-06-I	W	70,a	ND	0.63	ND	ND	ND	1	105

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas) m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

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Pacific States Environmental	Client Project ID: #6055153; DPR	Date Sampled: 04/07/06
11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P O :	Date Analyzed: 04/07/06

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0604134

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0604134-001D	WARLB-4-7-06-I	W	ND	1	89

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L

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

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P O.:	Date Analyzed: 04/07/06

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0604134

					Reporting Limit for DF =1	
Lab ID	0604134-001J					
Client ID	WARLB-4-7-06-I					
Matrix	W					
DF	1				S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND				NA	0.5
t-Butyl alcohol (TBA)	12				NA	5.0
1,2-Dibromoethane (EDB)	ND				NA	0.5
1,2-Dichloroethane (1,2-DCA)	0.62				NA	0.5
Diisopropyl ether (DIPE)	0.58				NA	0.5
Ethanol	ND				NA	50
Ethyl tert-butyl ether (ETBE)	ND				NA	0.5
Methanol	ND				NA	500
Methyl-t-butyl ether (MTBE)	ND				NA	0.5
Surrogate Recoveries (%)						
%SS1:	103					
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe

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

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

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11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P.O :	Date Analyzed: 04/10/06

Semi-Volatile Organics by GC/MS (Basic Target List)*

Extraction Method: SW3510C Analytical Method: SW8270D Work Order: 0604134

Lab ID	0604134-001K
Client ID	WARLB-4-7-06-I
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acenaphthene	ND	1.0	10	Acenaphthylene	ND	1.0	10
Acetochlor	ND	1.0	10	Anthracene	ND	1.0	10
Benzidine	ND	1.0	50	Benzoic Acid	ND	1.0	50
Benzo(a)anthracene	ND	1.0	10	Benzo(b)fluoranthene	ND	1.0	10
Benzo(k)fluoranthene	ND	1.0	10	Benzo(g,h,i)perylene	ND	1.0	10
Benzo(a)pyrene	ND	1.0	10	Benzyl Alcohol	ND	1.0	20
1,1-Biphenyl	ND	1.0	10	Bis (2-chloroethoxy) Methane	ND	1.0	10
Bis (2-chloroethyl) Ether	ND	1.0	10	Bis (2-chloroisopropyl) Ether	ND	1.0	10
Bis (2-ethylhexyl) Adipate	ND	1.0	10	Bis (2-ethylhexyl) Phthalate	ND	1.0	10
4-Bromophenyl Phenyl Ether	ND	1.0	10	Butylbenzyl Phthalate	ND	1.0	10
4-Chloroaniline	ND	1.0	20	4-Chloro-3-methylphenol	ND	1.0	10
2-Chloronaphthalene	ND	1.0	10	2-Chlorophenol	ND	1.0	10
4-Chlorophenyl Phenyl Ether	ND	1.0	10	Chrysene	ND	1.0	10
Dibenzo(a,h)anthracene	ND	1.0	10	Dibenzofuran	ND	1.0	10
Di-n-butyl Phthalate	ND	1.0	10	1,2-Dichlorobenzene	ND	1.0	10
1,3-Dichlorobenzene	ND	1.0	10	1,4-Dichlorobenzene	ND	1.0	10
3,3-Dichlorobenzidine	ND	1.0	20	2,4-Dichlorophenol	ND	1.0	10
Diethyl Phthalate	ND	1.0	10	2,4-Dimethylphenol	ND	1.0	10
Dimethyl Phthalate	ND	1.0	10	4,6-Dinitro-2-methylphenol	ND	1.0	50
2,4-Dinitrophenol	ND	1.0	50	2,4-Dinitrotoluene	ND	1.0	10
2,6-Dinitrotoluene	ND	1.0	10	Di-n-octyl Phthalate	ND	1.0	10
1,2-Diphenylhydrazine	ND	1.0	10	Fluoranthene	ND	1.0	10
Fluorene	ND	1.0	10	Hexachlorobenzene	ND	1.0	10
Hexachlorobutadiene	ND	1.0	10	Hexachlorocyclopentadiene	ND	1.0	50
Hexachloroethane	ND	1.0	10	Indeno (1,2,3-cd) pyrene	ND	1.0	10
Isophorone	ND	1.0	10	2-Methylnaphthalene	ND	1.0	10
2-Methylphenol (o-Cresol)	ND	1.0	10	3 &/or 4-Methylphenol (m,p-Cresol)	ND	1.0	10
Naphthalene	ND	1.0	10	2-Nitroaniline	ND	1.0	50
3-Nitroaniline	ND	1.0	50	4-Nitroaniline	ND	1.0	50
Nitrobenzene	ND	1.0	50	2-Nitrophenol	ND	1.0	50
4-Nitrophenol	ND	1.0	50	N-Nitrosodiphenylamine	ND	1.0	10
N-Nitrosodi-n-propylamine	ND	1.0	10	Pentachlorophenol	ND	1.0	50
Phenanthrene	ND	1.0	10	Phenol	ND	1.0	10
Pyrene	ND	1.0	10	1,2,4-Trichlorobenzene	ND	1.0	10
2,4,5-Trichlorophenol	ND	1.0	10	2,4,6-Trichlorophenol	ND	1.0	10

Surrogate Recoveries (%)

%SS1:	108	%SS2:	115
%SS3:	100	%SS4:	81
%SS5:	117	%SS6:	97

Comments:

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L

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

#) surrogate diluted out of range; &) low or no surrogate due to matrix interference.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) sample diluted due to high organic content/matrix interference

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11555 Dublin Blvd		Date Received: 04/07/06
Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/10/06
	Client P.O.:	Date Analyzed: 04/10/06

Cyanide, Total*

Analytical Method: E335.3 / Kelada-01 Work Order: 0604134

Lab ID	Client ID	Matrix	Total Cyanide	DF
0604134-001I	WARLB-4-7-06-I	W	ND	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	20 µg/L	
	S	NA	

* water samples are reported in ug/L; soil/sludge/solid samples in mg/kg; wipe samples in µg/wipe.
^ All water samples are screened for sulfide interference prior to analysis and treated to remove sulfide if it is present. All soil samples are treated to remove sulfide, nitrate and nitrite interference prior to analysis.

i) liquid sample contains greater than ~1 vol % sediment; j) reporting limit raised due to high sediment content/matrix interference; m) sample treated to remove interfering sulfide per E335.4; n) sample treated to remove interfering nitrate and nitrite per E335.4; p) see attached narrative

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Pacific States Environmental	Client Project ID: #6055153; DPR	Date Sampled: 04/07/06
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Dublin, CA 94568	Client Contact: Ameet Patel	Date Extracted: 04/07/06
	Client P O :	Date Analyzed: 04/08/06

Hexachrome by IC*

Analytical Method: E218.6 Work Order: 0604134

Lab ID	Client ID	Matrix	Hexachrome	DF
0604134-001E	WARLB-4-7-06-I	W	I 5	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	0 2 µg/L	
	S	NA	

* water samples are reported in µg/L.

N/A means surrogate not applicable to this analysis; # surrogate diluted out of range or surrogate coelutes with another peak

h) a lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol % sediment; j) sample diluted due to matrix interference; p) see attached narrative

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	Client P.O.:	Date Analyzed: 04/10/06

Mercury by CVAF*

Extraction method: E1631 Analytical methods: E1631 Work Order: 0604134

Lab ID	Client ID	Matrix	Extraction	Mercury	DF	% SS
0604134-001F	WARLB-4-7-06-1	W	TTLC	16	1	N/A
0604134-001G	BLANK-1	W	TTLC	ND	1	N/A
0604134-001H	BLANK-2	W	TTLC	ND	1	N/A

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TTLC	0.5	ng/L
	S	TTLC	NA	mg/kg

*water samples are reported in ng/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

i) aqueous sample containing greater than ~1 vol % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery, caused by matrix interference; n) results are reported on a dry weight basis; p) see attached narrative.

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Dublin, CA 94568	Client P.O.:	Date Analyzed: 04/10/06

Metals*

						Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	0604134-001B						
Client ID	WARLB-4-7-06-I						
Matrix	W					S	W
Extraction Type	TTLC					mg/kg	µg/L

ICP-MS Metals, Concentration*

Analytical Method: E200.8 Extraction Method: E200.8 Work Order: 0604134

Dilution Factor	1					1	1
Antimony	0.70					NA	0.5
Arsenic	2.9					NA	0.5
Beryllium	ND					NA	0.5
Cadmium	ND					NA	0.25
Chromium	2.6					NA	0.5
Copper	7.0					NA	0.5
Lead	ND					NA	0.5
Nickel	5.5					NA	0.5
Selenium	0.75					NA	0.5
Silver	ND					NA	0.19
Thallium	ND					NA	0.5
Zinc	25					NA	5.0
%SS:	117						

Comments					

*water samples are reported in ug/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter

means surrogate diluted out of range; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument

i) aqueous sample containing greater than ~1 vol. % sediment; for DISSOLVED metals, this sample has been preserved prior to filtration; for TTLC metals, a representative sediment-water mixture was digested; j) reporting limit raised due to insufficient sample amount; k) reporting limit raised due to matrix interference; m) estimated value due to low/high surrogate recovery; n) results are reported on a dry weight basis; p) see attached narrative.

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pH*

Analytical Method: SM4500H+B Work Order: 0604134

Lab ID	Client ID	Matrix	pH
0604134-001C	WARLB-4-7-06-I	W	7.30 @ 18.1°C

Method Accuracy and Reporting Units	W	±0.05, pH units @ °C
	S	NA

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Specific Conductivity*

Analytical Method: SM2510B Work Order: 0604134

Lab ID	Client ID	Matrix	Specific Conductivity	DF
0604134-001C	WARLB-4-7-06-I	W	1140 @ 25.0°C	1

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	10 µmhos/cm @ 25°C	
	S	NA	

* Salinity (mg/L) = 0.64 * S.C.(µmhos/cm @ 25°C) per SSSA volume 5 part 3.

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