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# THE SUTTON GROUP

SOILS, FOUNDATIONS, DRAINAGE, SLOPES, CONTAINMENTS CIVIL, GEOTECHNICAL AND ENVIRONMENTAL ENGINEERING 3708 Mount Diablo Blvd Suite 215 Lafayette, CA, 94549

May 20, 2004

Mr. Michael Cortez Oro Loma Sanitary District 2600 Grant Avenue San Lorenzo, 94580

Results of Quarterly Sampling of Ground Water Monitoring Wells Sites of Former Gasoline and Diesel Tanks 2600 Grant Ave., San Lorenzo, CA OLSD PO No. 4911, LOP Site No. RO0000288 ST ID 1996

Dear Mr. Cortez:

We attach results for the most recent round of quarterly sampling of the ground water monitoring wells, conducted on April 27, 2004. This is the 7<sup>th</sup> quarterly sampling of the two additional wells installed in October 2002 in the parking lot west of the District's Engineering Building. The sampling was conducted concurrent with the drilling of additional borings in accordance with the Remedial Technology Evaluation and Work Plan dated March 31, 2004. In accordance with the approved work scope, monitoring wells Nos. MW- 4 and 5 were sampled and groundwater depths in all 5 monitoring wells in this area were measured in this round. The monitoring well at the location of the former diesel tank was also sampled.

This work has been performed in accordance with the Work Plan that was approved by Alameda County Health Care Agency's Environmental Protection Division (ACEP) in their letter dated August 27, 2002. The sampling program was in accordance with the request of ACEP's April 18, 2003 letter.

Figure 1 is a plan of the District's facilities at the foot of Grant Avenue in San Lorenzo that shows the relative locations of the former gasoline and diesel tanks to the sewage treatment plant and the District's offices. Figure 2 is a plan of the Service Center area, which was the site of the former gasoline tank.

## Sampling Results

#### **Gasoline Tank Area**

On April 27, 2004, ground water depths were measured in all 5 monitoring wells near the Engineering Building. Conditions of the wellheads appeared to have not changed from the previous sampling. All five wells were sounded for groundwater depth.

The attached Table 1 summarizes the ground water elevation data collected in the gasoline tank area over the past year. The gradient direction, shown on Figure 2, was estimated after considering the individual gradients for triplets of three wells, and the relative groundwater elevations in relation to the influence of the gravel-filled trenches that bound the site, and those in Grant Avenue to the east and south of MW-1 and -2, which all act as groundwater sinks. The three on-site wells upgradient of the Grant Avenue boundary indicate a flat groundwater gradient of 0.0035 ft/ft between the three onsite wells, while the net gradient of all five wells as triplets is towards Grant Avenue (southeast). Water levels in wells MW-1 and -2 in Grant Avenue are several feet lower than those in the tank area. The gradient between wells MW-1 and -5, at 0.47 ft/ft, quantifies the strong influence of the gravel filled barrier trenches that parallel the Grant Avenue boundary, separating these wells from those on the site. The gradient between wells MW-1 and -2, at 0.22 ft/ft indicates the influence of the other gravel-filled pipeline trenches in Grant Avenue to the east and south.

Following sounding, wells MW-2, 4, and 5 were each purged of 4 to 6 gallons of water, over three well volumes. After purging, the samples were collected using dedicated bailers and laboratory-supplied glass containers. Samples from MW-4 and 5 were each sampled and analyzed for gasoline, BTEX and MTBE using standard EPA test methods 8015 and 8021 and for the parameters of the parallel remedial investigation (Mn, Fe, BOD, and COD). MW-2 was sampled only for the parameters of the parallel remedial investigation in accordance with the two work plans in force.

Table 2 is a summary of the the current round of analytical results for petroleum hydrocarbons. Table 2A is a compilation of all test results for gasoline-related hydrocarbons in the gasoline tank area since well sampling began in 1999. The laboratory report is appended, as are sampling event field sheets.

#### **Diesel Tank Area**

The monitoring well at the location of the former diesel tank was also sampled. This well was installed and first sampled in December, 1993. The monitoring well location is shown on Figure 1.

The well was purged and sampled, and analyzed for TPH as diesel and BTEX. The diesel presence of 110  $\mu$ g/l was of the same magnitude the readings of the last year but substantially less than the highest reading of 380  $\mu$ g/l in 1995. While this well has no historical detection of BTEX, for the first time, trace amounts (less than 1 $\mu$ g/l of BTEX were detected. The reason is unknown. It might relate to the flooding of the well area this past winter, however, there are many other potential sources of such a minor amount. This will be evaluated over future sampling events. Table 3 is a tabulation of historic sample results for this well.

#### Conclusions and Future Sampling

The groundwater gradients in the gasoline tank area continue to demonstrate that the contamination is contained on the Districts property by the barrier trenches. The wells beyond the barrier continue to show no detection of gasoline or BTEX.

The sample from the diesel tank well indicates an extremely low presence of diesel. The trace presence of BTEX in the results reported herein will be monitored during future samplings

The next scheduled sampling of wells is scheduled for July 2004.

LIC, No. 40324

We appreciate the opportunity to be of continued service to The District. Please call me if you have questions or if I can assist you in any other way.

Yours truly,

THE SUTTON GROUP

John R. Sutton, PE Civil Engineer No 40324

License valid through 12/31/2006

Attachments:

Figure 1 Site Plan

Figure 2 Well Location Plan, Former Gasoline Tank Area

Table 1 Ground Water Elevations, Former Gasoline Tank Area

Table 2 Summary of Current Water Sample Analyses

Table 2A Cumulative Summary of Water Sample Analyses, Gas Tank Area

Summary of Water Sample Analyses, Former Diesel Tank Area

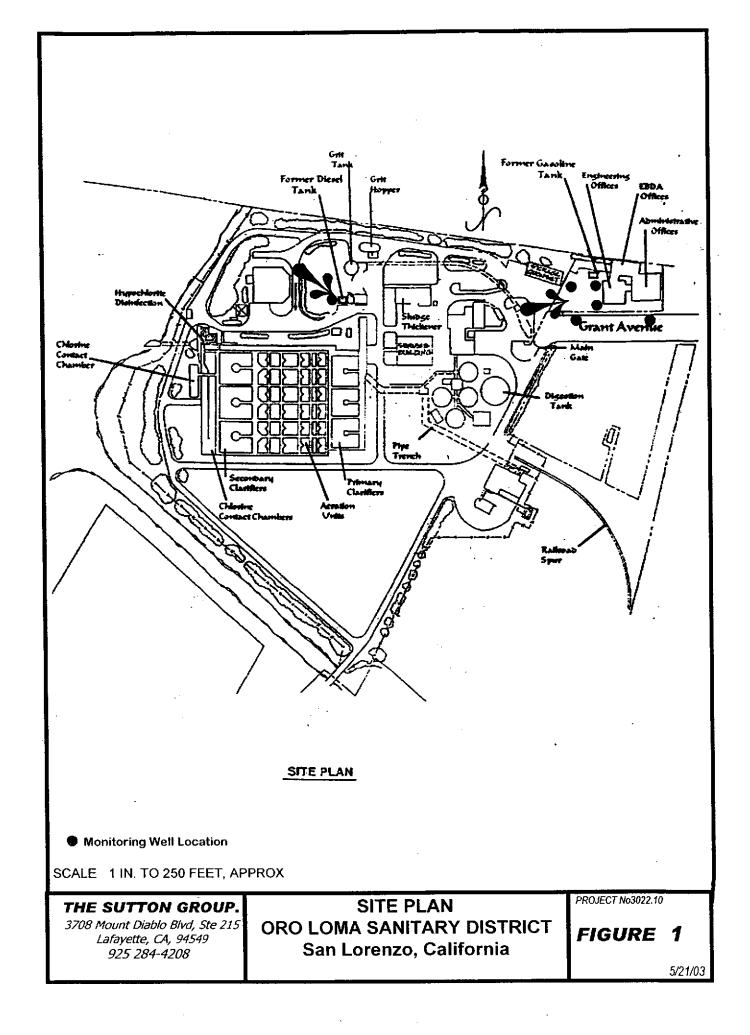
Analytical Laboratory Report

Sample Collection Logs

Two Copies Sent

Table 3

One copy sent to Ms. Eva Chu at Alameda County Health Dept.



Engineering and Environmental Services 3708 Mount Diablo Blvd, Suite 215 Lafayette, California, 94549 Phone: (925).284-4208 THE **SUTTON GROUP** 60 (Approximate Scale in Feet) LEGEND SOIL BORNG, LEWIS-FRONZ, 1993 MAINTENA BUILDING TEST MENON, SUTTON CROUP, 1894 EBOA SOIL AND MATER INVESTIGATION, SUTTON OROUP, 1996 SOTON COCATION
SUTTON CROLP, 1996
AM SAMPLE LOCATION
SUTTON CHOLP, 1996 MW-4\* ORO LOMA SANITARY DISTRICT Monitoring ◉ MW-1 **Well Location** WELL LOCATION PLAN ADMINISTRATION SERVICE CENTER AREA OLSO Engineering BUILDING 2600 GRANT AVENUE, SAN LORENZO, CA BUILDING OLSD ® MW-(4-92) 5 PLANTER POTW 54® **⊕<sub>0°-7</sub>** EP-9B 10" SS (ABANDONED) EP-10 8" SS 9# 9 PF EP-12 ⊗ ⊗ EP-12A ⊚ MW-1 (2.35' 12° SD ⊗ EP-11 MW-2 12 √(21,55) **GRANT AVENUE** Z Z ◉ **BEARING** N 50°09'00"E 66° SS 2+00 66° 55 Ö 6 MASONRY WALL 39" SS (A) 39" SS (A) PROJECT No. 3022.10 FIGURE **← TRUNK SEWER PIPES** 30" \$\$ 30" \$\$ 0 30" 55 70, 22 J 55 8, 22 8/2/03 N

in makindistrigiz

9TH QTLY SAMPLING

# TABLE 1 GROUND WATER ELEVATIONS

All measurements are in feet

Monitoring Well ID	MW 1	MW 2	MW 3	MW 4	MW 5	5 Estimated Net	
Well Cover Rim Elevn*	8.65	8.75	10.19	9.68	8.92	Flow Direction Gradier	
Initial Sampling 10/21/02	1.72	2.04	3.21	3.58	2.84	S21°E	0.016
2 <sup>nd</sup> Quarterly 1/28/03	2.23	2.65	4.94	5.35	4.42	S23°E	0.033
3rd Quarterly, 4/28/03	Not Measured	3.18	Not Measured	5.80	5.20	S22½°W	0.042
4 <sup>th</sup> Quarterly, 7/25/03	0.45	2.35	3.44	3.58	3.52	S18°W	0.027
5 <sup>th</sup> Quarterly, 10/30/03	1.82	2.75	3.61	4.18	4.09	S26°E	0.014
6 <sup>th</sup> Quarterly, 1/23/04	2.20	3.27	5.27	5.47	5.17	S35°E	0.053
7th Quarterly, 4/27/2004							
Groundwater Depth	6.30	5.20	5.20	4.60	4.00		
Groundwater Elevation	2.35	3.55	4.99	5.08	4.92	S17°E	0.017
Change Since last reading	0.15	0.28	-0.28	-0.39	-0.25		

<sup>\*</sup> Basis of elevations, Alameda County bench mark "Grant–Phil" at intersection of Grant Avenue and Phil Drive.

Elevation = 2.175 meters, msl = 7.136 feet.

### TABLE 2

#### SUMMARY OF GROUND WATER SAMPLE ANALYSES

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE

EPA METHOD 8015Cm /8021 results in µg/l (ppb)

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	Toluene	ETHYL BENZENE	XYLENES (TOTAL)	MTBE	DILUTION FACTOR
MW-4	4/27/04	78,000	13,000	7,800	3,200	17,000	ND < 1,000	200
MW-5	4/27/04	39,000	12,000	11,000	920	4,300	ND < 1,000	200
MW-D 1	4/27/04	DIESEL: 110	.59	.91	ND	.52	ND	1
REPORTING LIMITS FOR DF=1	4/27/04	50	0.5	0.5	0.5	0.5	5	

#### NOTES:

ND Analyte not detected at stated reporting limit

N/A Not analyzed

#### **TABLE 2A**

# CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES FORMER GASOLINE TANK AREA

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE results in µg/l (ppb)

SAMPLE LOCATION	SAMPLE DATE	Gasoline	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
MW-1	2/19/99	ND	ND	ND	ND	ND	ND
	5/10/99	ND	ND	ND	ND	ND	ND
	8/30/99	N/A	ND	ND	ND	ND	ND
an 'ar man an tarawa antajako an' tajakan mana arawa danataha kan	11/23/99	ND	ND	ND	ND	ND	ND
DUP	11/23/99	ND	ND	ND	ND	ND	ND
	7/25/03	ND	ND	ND	ND	ND	ND
	10/30/03	N/A					
n recommend je je je vjejska kralika a nasoda recommend sjest	1/23/04	ND	ND	ND	ND	ND	ND
	4/27/04	N/A	N/A	. N/A	N/A	N/A	N/A
MVV-2	2/19/99	ND	ND	ND	ND	ND	NO
	5/10/99	ND	ND	ND	ND	ND	ND
	8/30/99	N/A	ND	ND	ND	ND	ND
n in mann na mann in ann ar an mark-barb an ar 1940 (b. 1945)	11/23/99	ND	ND	ND	ND	ND	ND
	7/25/03	ND	ND	ND	ND	ND	< 1

ORO LOMA SANITARY DISTRICT, STID 1996 3022.10 TABLE 2A for7th gtly, 0404

TABLE 2A, Continued CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES FORMER GASOLINE TANK AREA

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
	10/30/03	N/A					
	1/23/04	ND	ND	ND	ND	ND	ND
	4/27/04	N/A	N/A	N/A	N/A	N/A	N/A
MW-3	2/19/99	ND	ND	ND	ND	ND	1.5 <sup>1</sup>
DUP	2/19/99	ND	ND	ND	ND	ND	N/A
	5/10/99	ND	ND	ND	ND	ND	1.5 <sup>2</sup>
पुरुक्तात्रम् पुरुष्ट्राच्या साम्राज्यास्य सम्बद्धाः स्टब्स्य सम्बद्धाः स्टब्स्य सम्बद्धाः स्टब्स्य स्टिस्स्य	8/30/99	N/A	ND	ND	ND	ND	ND
	11/23/99	ND	ND	$[0.69]^3$	[0.58] <sup>3</sup>	[1.3] <sup>3</sup>	ND
	1/6/00	ND	ND	ND	ND	ND	3.14
DUP	1/6/00	ND	ND	ND	ND	ND	2.64
TRIP BLANK	2/10-22/99	ND	ND	ND	ND	ND	N/A
	5/8-20/99	N/A	N/A	N/A	N/A	N/A	N/A
तः व्युत्त्रपुत्र निर्देश क्षित्र प्रितिवर्णन्त । साम्राज्यस्य प्रतिकृति । विद्यास्य विद्यास्य साम्राज्यस्य सा	8/27-31/99	N/A	N/A	N/A	N/A	NA	N/A
	7/25/03	ND	ND	ND	ND	ND	1.1
	10/30/03	N/A	N/A	N/A	N/A	N/A	N/A
	1/23/04	N/A	N/A	N/A	N/A	N/A	N/A
	4/27/04	N/A	N/A	N/A	N/A	N/A	N/A

ORO LOMA SANITARY DISTRICT, STID 1996 302210 TABLE 2A for7th qtly, 0404: Table 2A, Page 2

TABLE 2A, Continued CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES FORMER GASOLINE TANK AREA

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
MW-4	10/21/2002	N/A	5,800	6,200	3,500	18,000	140
	1/28/03	N/A	7,200	3,500	2,700	15,000	130
	4/28/03	N/A	5,700	850	ND<120	10,000	200
	7/25/03	97,000	11,000	8,400	4,900	24,000	ND<250
	10/30/03	77,000	12,000	9,300	3,200	16,000	ND < 200
	1/23/04	100,000	16,000	10,000	1,100	19,000	ND < 1,200
	4/27/04	4/27/04	78,000	13,000	7,800	3,200	17,000
MW-5	10/21/2002	65,000	12,000*	20,000*	1,600*	7,100*	ND<100
	1/28/03	N/A	9,100	6,600	720	4,000	ND<100
	4/28/03	N/A	12,000	8,300	ND<250	2,100	ND<250
	7/25/03	62,000	13,000	14,000	1,300	5,200	ND<250
	10/30/03	33,000	7,500	2,200	490	1,600	ND < 100
	1/23/04	97,000	18,000	20,000	ND<120	7,900	ND < 1,200
	4/27/04	39,000	12,000	11,000	920	4,300	ND < 1,000

#### NOTES:

ND	Analyte not detected at stated reporting limit	1.	Analyzed by EPA method 8260B, reporting limit was 1 µg/l.
N/A	Not analyzed	2.	Estimated value below method reporting limit of 2 μg/l.
u/n	Unless noted otherwise (Reporting Limit)	3.	Inconsistent contaminant pattern. Sample result spurious, re-sampled
		4.	Reporting limit at 2.5 μg/l.

## TABLE 3

# SUMMARY OF WATER SAMPLE ANALYSES: FORMER DIESEL TANK AREA MONITORING WELL

# TOTAL PETROLEUM HYDROCARBONS AS DIESEL, EPA METHOD 8015C, 8021

RESULTS IN µg/L (ppb)

Sample Date	TPH as DIESEL	BTEX
4/27/04	110	< 0.91
1/23/04	71	ND
10/30/03	87	ND
7/25/03	90*	ND*
4/28/2003	87	ND
3/ 8/1996	340	ND
2/1/95	380	ND
6/15/94	170	ND
3/15/94	200	ND
12/1/93	300	ND

For reporting limits refer to laboratory certificates appended.

ORO LOMA SANITARY DISTRICT
302210 TABLE 3 D analyt 7th qtly 0404



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

The Sutton Group	Client Project ID: #3022.11; Oro Loma	Date Sampled: 04/27/04
3708 Mt. Diablo Blvd, Ste. 215	San. Dist.	Date Received: 04/27/04
Lafayette, CA 94549	Client Contact: John Sutton	Date Reported: 05/04/04
Dalayette, Ch. 74549	Client P.O.:	Date Completed: 05/04/04

WorkOrder: 0404404

May 04, 2004

Dear John:

#### Enclosed are:

- 1). the results of 4 analyzed samples from your #3022.11; Oro Loma San. Dist. project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Angela Rydelius, Lab Manager

Yours truly,



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

The Sutton Group	Client Project ID: #3022.11; Oro Loma	Date Sampled: 04/27/04
3708 Mt. Diablo Blvd, Ste. 215	San. Dist.	Date Received: 04/27/04
Lafayette, CA 94549	Client Contact: John Sutton	Date Extracted: 05/02/04-05/04/04
2012/1000, 011/1/01/0	Client P.O.:	Date Analyzed: 05/02/04-05/04/04

#### Casaline Pange (C6 C12) Valatile Hydrogenham of Casaline with DTEV

Lab ID	Client ID	Matrix	TDIT/->		nethods: SW80211		1		Order: 0	
Lab II	Chem ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MWD1	w		ND	0.59	0.91	ND	0.52	1	99.5
003D	MW4	w	78,000,a	ND<1000	13,000	7800	3200	17,000	200	105
004D	MW5	w	39,000,a	ND<1000	12,000	11,000	920	4300	200	102
	,				W-W-J					
	-· <u></u>									
						No day.				
										_
						V				
	Limit for DF =1; not detected at or	w	50	5.0	0.5	0.5	0.5	0.5	1	μg/I
	e reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/K

- 10	* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg,	
	i Walth allu Vallu Natilibits and all 11.1.1.4 N. NPL P extracts are reported in up/1. coll/cludge/colld.complex in ma/kg.	Misso compoles in a almino
		wide samples in us/wide.
		I
- 14	product/oil/non-aqueous liquid samples in mg/L.	
ш	production/noti-aqueous riquiq samples in mg/L.	

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

<sup>+</sup>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 ~2 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.



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The Sutton Gro	ир	,	Client Project ID: #3022.11; Oro Loma Date Sampled:					
3708 Mt. Diablo Blvd, Ste. 215		San. Dist.		Date Received: 04/27/04				
		Client Contac	t: John Sutton	Date Extracted: 04/27/04				
Larayette, CA 9	Lafayette, CA 94549		Client P.O.: Date As					
	Die	sel Range (C10-	C23) Extractable Hydrocarl	oons as Diesel*				
Extraction method: SW	73510C		Analytical methods: SW8015C		Wor	k Order:	0404404	
Lab ID	Client ID	Matrix	TPH(c	1)		DF	% SS	
0404404-001B MWD1		w	W 110,b		1		108	

Reporting Limit for DF =1; ND means not detected at or	W	50	μ	g/L

<sup>\*</sup> 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.

S

J4

NA

NA

above the reporting limit

<sup>#</sup> cluttered chromatogram resulting in coeluted suπogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

<sup>+</sup>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 ~2 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

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

### QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0404404

EPA Method:	SW8021B/8015Cm	Extraction:	SW5030E	3	BatchID:	11296	Spiked Sample ID: 0404402-003A					
	Samp	le Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)		
	hâ\(	. µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High		
TPH(btex) <sup>£</sup>	ND	60	104	102	1.85	101	99.9	1.35	70	130		
мтве	ND	10	98.9	95.9	3.06	103	108	4.58	70	130		
Benzene	ND	10	108	107	1.14	108	112	4.13	70	130		
Toluene	ND	10	111	110	0.641	110	114	3.33	70	130		
Ethylbenzene	ND	10	116	114	2.30	114	116	1.51	70	130		
Xylenes	ND	30	107	100	6.45	103	107	3.17	70	130		
%SS:	104	10	103	104	0.397	102	104	2.22	70	130		

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation

<sup>%</sup> Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

<sup>\*</sup> MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

<sup>£</sup> TPH(btex) = sum of BTEX areas from the FID.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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

### QC SUMMARY REPORT FOR SW8015C

Matrix: W

WorkOrder: 0404404

EPA Method: SW8015C	E	Extraction: SW3510C			BatchID:	11280	Spiked Sample ID: N/A					
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)		
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High		
TPH(d)	N/A	7500	N/A	N/A	N/A	102	103	1.35	70	130		
%SS:	N/A	2500	N/A	N/A	N/A	107	108	0.938	70	130		

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

\* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

QA/QC Officer

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

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

WorkOrder: 0404404

ClientID: TSG

Report to:

John Sutton

The Sutton Group

3708 Mt. Diablo Blvd, Ste. 215

Lafayette, CA 94549

TEL: 925-284-4208

925-284-4189 FAX:

ProjectNo: #3022.11; Oro Loma San. Dist.

PO:

Bill to:

Requested TAT: 5 days

Accounts Payable

The Sutton Group

3708 Mt. Diablo Blvd, Ste. 215

Date Received:

4/27/04

Lafayette, CA 94549

Date Printed:

4/27/04

	<u> </u>			y <sup>r</sup>					 F	Reque	estec	Test	s (See	legend !	elow)					
Sample ID	ClientSampID	Matrix	Collection Date	Hold	1	2	3	4	5	6		7	8	9	10	- 11	12	13	14	4 15
									 									<del></del>		<b></b>
0404404-001	MWD1	Water	4/27/04 4:50:00 PM	1 🔲	,,		Α		8	]										-
0404404-002	MW2	Water	4/27/04 3:55:00 PM	1 🔲	С	В	j	Α		<u>.</u>			<u> </u>		1		<u> </u>			
0404404-003	MW4	Water	4/27/04 2:35:00 PM	4 🗆	С	В	D	А							1			<u> </u>	_	
0404404-004	MW5	Water	4/27/04 2:55:00 PM	1 🔲	С	В	D	А		· ·			<u> </u>				1	<u> </u>		

#### Test Legend:

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1	6	- (- 6 1 1		 								 	
:	11		-	 ٠. ٠					•			 ••	 

2	CODF_W	
7		
12		

3	G-MBTEX_W
8	
13	

4 METALS_DISS	
9	
14	]

5	TPH(D)_W
10	
15	

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.

#### Page \_\_\_\_of \_\_\_\_ CHAIN OF CUSTODY FORM 0404404 Curtis & Tompkins, Ltd. **Analyses** C&T Analytical Laboratory Since 1878 LOGIN# 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax Sampler Report To: 6 HN XUTTON Project No: 3000\_// Company: The Project Name: Oro Long Som. Duf Telephone: 225 - 284-4208 Project P.O.: Turnaround Time: Fax: Matrix Preservative Sampling # of OS N US Containers Laboratory Sample ID. **Field Notes** Date Number Time mwn1-042704 4/27/04/650 -16 amber 1650 MW2-WATUY 222 500 ml 20/4 250 mlain - + 10 may -042704 1 Leois 500 me poly O B O **3...** 250 MR Als 0 1145-04706 soonl as Ø 1455 RECEIVED BY: Notes: **RELINQUISHED BY:** John routton @ minds pring. X COD/BOD need 45 u Fallsignatu and and preserve ASAP. DATE/TIME DATE/TIME DATE/TIME DATE/TIME APPROPRIATE GOOD CONDITION

HEAD SPACE ABSENT

PRESERVATION

DATE/TIME

Project Name	OLSD
Project Number	3072.11
Sampler Name	Sutter & Bans
Date of Sample Collection	4/27/04
Sample Number	MW2 - 042704
Sample Location	MW2 - 042704 MW2 in Grant As at perking bot
Sample Media	Soil/ Water other
Site Conditions	Suny hot breezy
	1 1 80
	·
Sample Collection Depth	
	Pater @ 5.21; NFP
Sample Container	
Intact or Disturbed Sample	155 650: Temp = 19:93°C
Sample Material Description	Sper, land = 1653/hs/con
	100 = 4.76 An = 43mell
Collection Procedure	st = 7.7
	Dedualed Baler ORP = -192
	4 gellers purged
	M 50 1 100
	Boo : Soonl PE
	2 COD : 250 ml PE prosence of Holy
	Stored on fee
Proposed Lab. Analysis (	
Toposed Edb. Aridiyala	
	1440 4410
Water Levels	MWH MWZ MW3
Vac never	·
	(BAST) (WEST) Parking lot, h
	6.3 Rm 5.2 5.2
	NED 4 NEL
	NES " NESSON
	Con there

Project Number  Sampler Name  Surfor glown  At 27/04  Bampler Number  Sample Number  Sample Number  Sample Location  MW4 - 042704  Sample Location  MW4 , Engry Blog Parking for  Site Conditions  Surry, blot, Breggy  Sample Collection Depth  Sample Container  Sample Container  Sample Container  For multimate for  Inter or Disturbed Sample  Sample Material Description  Collection Procedure  Disturbed Sample  Collection Procedure  Disturbed Sample  Sample Material Description  Disturbed Sample  Collection Procedure  Disturbed Sample  Sample Material Description  Disturbed Sample  Collection Procedure  Disturbed Sample  Sample Material Description  Disturbed Sample  Collection Procedure  Disturbed Sample  Sample Material Description  Disturbed Sample  Distu	Project Name	OLSD
Sample Name  Suffon Elemy  Al 27/04  Sample Number  Sample Number  Sample Location  MW4 - 042704  Sample Location  MW4 , Engry Bely Parking let  Sample Media  Soil (Water) other  Site Conditions  Sumy, blet, breggy  Sample Collection Depth  Anterpelale, foliant. No fur product, Watera 4-6 haby if  Sample Container  YSI multimate 650  Temp = 20:4°C  Challe 6ff2 us less to sample  Sample Material Description  DO = 0:50 my/C  Park At gal (Ani reliance)  Watera Park  Bod Text Mark Watera Apres Ha	Project Number	
Sample Number  Sample Location  MW4 - 042704  Sample Location  MW4 , Engry Bley Parling Lot  Sample Media  Soil Water Jother  Site Conditions  Surry, blot, breggy  Sample Collection Depth  Interprefere, folimst. No fur forduct, Water 4-6 helm R  Sample Container  YSI multimater 650  Temp = 70 · 4 ° C  Intact or Disturbed Sample  Sample Material Description  DO = 6.44 × C  DO ST My R  DO	Sampler Name	
Sample Number  Sample Location  MW4, Engry Bedy Parlanj lot  Sample Media  Soil (Water) other  Site Conditions  Survey, blot, breagy  Sample Collection Depth  Interprefere, followst. No fue gradued, Nature 4-6 habri R  Sample Container  SI multimate 650  Temp = 20:4°C  Interprefere  Grad = 6472 us from 1  DO = 6:48 us from 1  DO = 0:58 my/c  Parland At gal (Dow release)  Collection Procedure  Dissilied : gas STEK MISSE w 3x form NOA upper, HA  Dissilied : gas STEK MISSE w 3x form N	Date of Sample Collection	
Sample Media  Site Conditions  Surry, Hot, Streyy  Sample Collection Depth  Anterperfole, Johnst. No fee broken! Water 4.6 holy R  Sample Container  YSI multimate 650  Temp = 20.4 C  And = 6882 us fem!  Sample Material Description  DO = 0.56 my/l  Collection Procedure  Paulad At gal (Ani relarge)  Callected: gas STEX MODE W 3x form WA Mpres. Ha  Do Bod Fe & Mn 1/1 R  Bod Fe & Mn 1/1 R  Bod Formula Ha	Sample Number	<u>,                                     </u>
Sample Collection Depth  Interprefiche, Solmist. No free forder! Water 4.6 hober R  Sample Container  YST multimeter 650  Temp = 20.4 C  Intact or Disturbed Sample  Sample Material Description  DO = 6.4 //  DO = 0.56 my/l  DO = 0.56 my/l  DO = 1700  Deducted Barler  Parled At gal (Sow recharge)  Collection Frosedure:  Dissolved Fe & Mn " IRE  BoD " 500 me PE manned the	Sample Location	MW4, Engy Blog Parleng Lot
Sample Collection Depth  Interprefiche, Johnst. No free product, Water 4-6 hober of Sample Container  Sample Container  YST multimeter 650  Temp = 20:4°C  Intact or Disturbed Sample  Sample Material Description  DO = 6:4%  DO = 0:56 my/l  DO = 0:56 my/l  Collection Procedure  DIST - 170  Deducted Barler  Parled At gal (Sam recharge)  Collected: gas STEX MITTE W 3x form NA Mpres. HA  DISSilved Fe & Mn " ILRE  BOD " 500ML PE manner the	Sample Media	Soil/Water/other
Sample Container  YSI multimater 650  Temp = 20 · 4 ° C  Intact or Disturbed Sample  Sample Material Description  DO = 6.4 %  DO = 0.56 mg/l  DO = 7.002  Collection Procedure  Paulad Az gal (Bow recharge)  Collected: gas STEK MIBE in 3x form WA in pres. How  Dissilved Fe & Min " 1 PE  BoD " 500 ml PE present the	Site Conditions	
Sample Container  YSI multimater 650  Temp = 20 · 4 ° C  Intact or Disturbed Sample  Sample Material Description  DO = 6.4 %  DO = 0.56 mg/l  DO = 7.002  Collection Procedure  Paulad Az gal (Bow recharge)  Collected: gas STEK MIBE in 3x form WA in pres. How  Dissilved Fe & Min " 1 PE  BoD " 500 ml PE present the		
Sample Container    SI multimeter 650     Temp = 20 14 C     Intact or Disturbed Sample	Sample Collection Depth	9 nterprepole, Solmist. No freebreduct, Water 4.6 h.b.
Intact or Disturbed Sample  Sample Material Description  DO = 6.4%  DO = 0.56 my/l  DO = 7.02  CRP = -170  Deducted Failer  Paulod At gal (Bow recharge)  Cellected: gas DTEX MIBE w 3x form WA Mpres. HO  DISSING FE & Mn " I PE  BoD " 500ml PE on several the  COD " 250 ml PE on several the	Sample Container	YSI multimate - 150
Intact or Disturbed Sample  Sample Material Description  DO = 6.4%  DO = 0.56 my/l  DO = 7.02  CRP = -170  Deducted Barles  Paulad Az gal (Saw recharge)  Cellected: gas STEX MIDE in 3x form was in pres. Ho  Dissilved Fe & Min " / LPE  BOD " 500ml PE on seven the		Tem= 2014°C
Sample Material Description		
Deducted Barles  Deducted Barles  Deducted: gas DIEK MIDE in 3x form WA in pres. HO  Dissilved Fe & Mn " ILPE  BoD " 500ml PE  COD " 250 pul PE present the	Sample Material Description	
Described Fe & Mn " ILFE  Bod Down Follows Fe & Mn " 1 PE  COD " 250 ml PE present the		DO = 0.56 myle
Deducted Barles  Pauled Az gal (Sow recharge)  Cellected: gas STEX MIDE is 3x 40 ml VCA in pres. HC  Dissolved Fe & Mn " Il PE  BOD " 500 ml PE on severel the	Collection Procedure	plt = 7.02
Pauled Az gal (Row recharge)  Cellected: gas DTEX MIDE W 3x 40 ml VOA Mpres. HO  Dissolved Fe & Mn " I LPE  BOD " 500 ml PE  COD " 250 ml PE present the		ORP = -170
Pauled Az gal (Row recharge)  Cellected: gas DTEX MIDE in 3x 40 ml VOA Mpres. HO  Dissilved Fe & Mn " I LPE  BOD " 500 ml PE  COD " 250 ml PE present the		Sedicated Brail.
Cellected: gas STEX MITSE W 3x 40 ml VOA Mpres. HO  Dissilved Fe & Mn " I PE  BOD " 500 ml PE  COD " 250 ml PE present the		
BOD " 500ml PE COD " 250 ml PE present the		
COD " 250 ml PE on sever the		prisited 1 6 8 Min " 12 PE
COD " 250 ml PE present the		BOD " SOUM PE
		Stored an De

Proposed Lab. Analysis

Project Name	OLSD	
Project Number	3.21.1/	
Sampler Name	Sutten & Berry	
Date of Sample Collection	4127104	2.55pm

Sample Number	MW5-04,704
Sample Location	MWB SW low Engy Bly, PKglot
Sample Media	Soil/ Water other
Site Conditions	Sunny, Hot Ell
Sample Collection Depth	Inderface Into: Water @ 4. O depth below Remi
Sample Container	No Retol. Holorains.
Intact or Disturbed Sample	T= 21.9°C 1 187 150
Sample Material Description	C = 19904 MS/cm ( a Sugardo
Collection Procedure	DO = 1.27 mgfl  Pt = 7.07  ORR = -142.C
	Puyed 6 gal in delicated bailer
	Cellet 3x VOA (HCl) CASKIEXMITE 12 PE Survivel Ma, Fe
	250 mi PE BOD 250 mi PE W/h804 COD
Proposed Lab. Analysis	Storer on Fee

	· · · · · · · · · · · · · · · · · · ·
Project Name	UISD
Project Number	3012.11
Sampler Name	Sutor
Date of Sample Collection	4/27/04 (425mg)
Sample Number	MW DI
Sample Location	MWD1-042704
Sample Media	Soil/ Water/ other
Site Conditions	Suny Hot Breezy
	11111
Sample Collection Depth	Water & 2.6' (Solmet) NFP sheer
Sample Container	( ) or freeze
	Duned 15a 0
Intact or Disturbed Sample	The Joseph
Sample Material Description	127
	435 447m
Collection Procedure	76- 26-0
	1975 750/ 8543 MS/00
	10,4 4,1% 90
	1.11mge 0.40
	7.79
	-165.5 -179.0 -193.3 ORP
	Il auter Drest
	3XVon (HCL) BJEX MIBG
Proposed Lab. Analysis	