

6 May 2002 Project 3212.02

Opus West Corporation c/o Jon K. Wactor, Esq. Luce, Forward, Hamilton & Scripps, LLP 121 Spear Street, Suite 200 San Francisco, California 94105

Subject: Closure Plan Addendum

Ryerson-Tull Steel Property

1465 65th Street

Emeryville, California

Dear Mr. Wactor:

Treadwell & Rollo, Inc. presents this addendum to our Closure Plan for the Ryerson-Tull Steel facility at 1465 65th Street in Emeryville, California ("site"). Figures 1 and 2, attached, present the site location and plan. This addendum includes results of groundwater monitoring recently completed at the site as requested by the City of Emeryville's consultant (City) and the Alameda County Environmental Health Services (County). This work was completed as outlined in our proposals dated 17 April 2002. Previously, SECOR completed a Phase I Environmental Site Assessment dated 9 November 2001 and we completed a Phase II Environmental Site Assessment, dated 21 January 2002, and a Closure Plan for the site, dated 26 March 2002. To verify that volatile organic compounds (VOCs) concentrations in groundwater beneath the site have stabilized or are decreasing, we collected an additional round of groundwater samples from the site wells for chemical analysis. A summary of the groundwater monitoring activities follows.

Groundwater Sampling and Analysis

On 25 April 2002, groundwater samples were collected from the six existing monitoring wells, RMW-1 through RMW-3 and MW-2 through MW-4, for chemical analysis. A duplicate sample was collected from well MW-4 and a trip blank was prepared for laboratory analysis as quality assurance and quality control samples. Prior to sampling the wells, the water level was measured in each well, and three equivalent casing volumes of groundwater were pumped from the well. A groundwater sample was then collected by lowering a disposable bailer into the well. The groundwater samples were decanted into the appropriate sample containers prepared and provided by the contracted analytical laboratory. The sample containers were then labeled and immediately placed in an ice-cooled chest for delivery under chain-of-custody procedures to McCambell Analytical, Inc. (McCambell), a California Department of Health Services-certified laboratory in Pacheco, California.

Prior to each purging and sampling interval, the equipment were cleaned with a detergent solution and rinsed with distilled water. The decontamination rinsate and purged groundwater were contained in a labeled 55-gallon drum and stored on site.

All the groundwater samples and trip blank were analyzed for VOCs by EPA method 8010. The samples collected from wells RMW-1 through RMW-3 were also analyzed for benzene, toluene, ethyl benzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8020, and

Opus West Corporation c/o Jon K. Wactor, Esq. Luce, Forward, Hamilton & Scripps, LLP 6 May 2002 Page 2



total extractable petroleum hydrocarbons (TEPH) by EPA Method 8015M. The groundwater sample from well MW-2 was also analyzed for MTBE as an upgradient monitoring location.

Results

The depth to groundwater in the six site monitoring wells was measured at 3.72 to 6.32 feet below the top of the well casing on 25 April 2002. Based on these measurements, groundwater was calculated to flow west-southwest. A summary of the monitoring well historic water level measurements is presented on Table 1, attached.

The laboratory analytical results are presented in Tables 2a and 2b and in the laboratory analytical report attached to this letter. Several VOCs were detected in the groundwater samples from all the wells, except MW-3. These VOCs and respective maximum detected concentration include: 1,2-dichloroethane at 1.2 micrograms per liter (ug/L), cis 1,1-dichloroethene (DCE) at 24 ug/L, trans 1,2-DCE at 18 ug/L, trichloroethene (TCE) at 44 ug/L, and vinyl chloride at 2.2 ug/L. VOCs were not detected in the trip blank.

BTEX and MTBE were not detected in any of the samples analyzed for these compounds. TEPH as diesel/oil were detected in the samples from wells RMW-1 and RMW-3 at concentrations up to 9,700 ug/L.

Discussion

Since the previous round of groundwater sampling (19 December 2001), the groundwater elevation has lowered approximately 0.5 to 3.0 feet. The VOCs detected are the same compounds detected during previous sampling events at similar concentrations. No individual VOC was detected at a concentration greater than previously detected. Detected VOC concentrations have stabilized and/or decreased during the groundwater-monitoring period that started in 1993. Furthermore, these recent data would not change the results of our risk evaluation, presented in the Closure Plan, which identified risk levels below regulatory accepted levels for future site occupants. Therefore, we conclude that additional environmental investigations are not necessary and recommend that the mitigative measures outlined in the Closure Plan be implemented for site development.

If you have any questions or comments, please call.

Sincerely yours,

TREADWELL & ROLLO, INC.

Jeffrey F. Ludlow, R.G.

Senior Project Manager

32120211.JFL

Attachment

cc: Susan Colman - City of Emeryville

Philip G. Smith, R.E.A. II Principal Geologist

Table 1 Groundwater Elevation Groundwater Monitoring Wells 1465 65th Street Emeryville, California

Well ID	Date Measured	Top of Casing Elevation	Depth to Water	Groundwater Elevation
	1 1	(Ft MSL)	(Ft BTOC)	(Ft MSL)
MW-2	3/24/95	19,45	3.03	16.42
1	7/7/95	19.45	4.20	15.25
]	12/17/01	19.45	3.49	15.96
]	4/25/02	19.45	3.98	15.47
L				
MW-3	3/24/95	15.24	2.72	12.52
ł	7/7/95	15.24	6.22	9.02
ł	12/17/01	15.24	3.26	11.98
•	4/25/02	15.24	6.32	8.92
MW-4	3/6/95	14.02		
S	3/24/95	14.02	4.57	9.45
}	7/7/95	14.02	5.77	8.25
}	12/17/01	14.02	5.02	9.00
ŀ	4/25/02	14.02	5.84	8.18
RMW-1	8/11/93	14.38	4.87	9.51
j	9/14/93	14.38	4.94	9.44
)	11/2/93	14.38	5.13	9.25
	11/24/93	14.38	5.07	9.31
	3/24/95	14.38	3.61	10.77
	7/7/95	14.38	4.18	10.20
	12/17/01	14.38	4.0	10.38
	4/25/02	14.38	4.51	9.87
RMW-2	8/11/93	14.55	4.64	9.91
	9/14/93	14.55	4.64	9.91
	11/2/93	14.55	4.85	9.70
	11/24/93	14.55	4.84	9.71
	3/24/95	14.55	3,35	11.20
	7/7/95	14.55	3.70	10.85
	12/17/01	14.55	3.78	10.77
	4/25/02	14.55	4.26	10.29
L	<u> </u>		1	
RMW-3	8/11/93	14.15		!
	9/14/93	14.15	.4.25*	9.90
	11/2/93	14.15	4.53*	9.62
	11/24/93	14.15	4.35*	9.80
	3/24/95	14.15	2.95	11.20
	7/7/95	14.15	3.70	10.45
	12/17/01	14.15	3.34**	10.81
l	4/25/02	14.15	3.72**	10 43
L				

Notes

Ft BTOC = feet below top of casing

Ft MSL = feet above mean sea level as referenced in the 1995 EKI report

NM = Not measured

Depth to water data for all dates except 12/17/01 and 4/25/02 by EKI and summarized in their 1995 report

^{* =} Corrected depth to water measurement made by HETI due to separate product phase on the water table

^{** =} Heavy Petroleum Hydrocarbon sheen observed on the groundwater purged from the well and/or on the laboratory sample

Table 2a Groundwater Monitoring Well Analytical Results By Others and Treadwell Rollo TPH and BTEX 1465 65th Street Emeryville, Califonia

	Sample						Ethyl-	Totai		TEPH as	TEPH as		Met	ls EPA 6000	Series
Sample ID	Sample Date	TPHg	ТРРН	MTBE	Benzene	Toluene	penzene Etilyi-	Xylenes	ТРН	Diesel	Motor Oil	ТЕРН	Arsenic	Lead	Chromium
RMW-1	8/11/93		3		<0.5	<0.5	<0.5	<0.5	<50						
	9/14/93								~-						T
}	11/2/93				•						44		1		
i	11/24/93	57			<0.5	<0.5	<0.5	<0.5		L			[-
1	3/24/95		<50	-	<0.5	<0.5	<0.5	<0.5		-	-	210	<5	<5	<10
<u> </u>	12/19/01				<0.5	<0.5	<0.5	<0.5		61b	<250				T ===
RMW-1GWDUP	12/19/01				<0.5	8.0	<0.5	<0.5		80g	280				
Į	4/25/02			<u> </u>	<0.5	<0.5	<0.5	<0.5		190g	1,200				
RMW-2	8/11/93				1.3	<0.5	<0.5	0.59	<50				 		+
10777	9/14/93						7.5	- 3.03							
4	11/2/93														 -
!	11/24/93	50			<0.5	<0.5	<0.5	<0.5						-	
1	3/24/95		<50		<0.5	<0.5	<0.5	<0.5				150	7.6	<5	<10
	12/18/01				<0,5	<0.5	<0.5	<0.5		<50	<250				
	4/25/02			্ ব	<0.5	<0.5	<0.5	<0.5	-	<50	<250				
RMW-3	8/11/93				NS:	Floating free	phase hydroc	arhons () () 1	fant						
KMW-2	9/14/93												 		╂──┤
	11/2/93	NS: Floating free-phase hydrocarbons 0.02 feet NS: Floating free-phase hydrocarbons 0.04 feet												-{	
	11/24/93						phase hydroc				 -				+
	3/27/95		11,000		<10	<10	<10	<10	-			97,000	<5	<5	<10
	12/18/01					<0.5	<0.5	1.4				-			
	4/25/02				<0.5	<0.5	<0.5	<0.5		9700b,g,h	9700b,g,h 5,000				

Table 2a Groundwater Monitoring Well Analytical Results By Others and Treadwell Rollo TPH and BTEX 1465 65th Street Emeryville, Califonia

ate	ТРНg	TPPH	мтве	Benzene	Toluene	Ethyl-	Total		TEPH as	TEPH as]				
2/05		TPPH	мтве	senzene	<0.5	benzene	Xylenes	TPHd		Motor Oil	ТЕРН	Arsenic	Lead	Chromium
		71		<0.5	<0.5	<0.5	<0,5				260	<5	ধ	<10
				<0.5	<0.5	<0.5	<0.5	-	<50	<250				
			<5											4
														1
3/95		<50		<0.5	<0.5	<0.5	<0.5	1	 }	-	150	13	<u><5</u>	<10
7/01				<0.5	<0.5	<0.5	<0.5		<50	<250				<u> </u>
5/02		-		7										-
														
3/95		<50	1	<0.5	<0.5						190	\ <u><5</u>		<10
9/01		1	4	<2.5	<2.5	<2.5	<2.5		<50	₹250		I		
5/02		-												
														+
9/01		-		<0.5	<0.5	<0.5	<0.5		<50	- 5250 		 -		+
							-0.5							
5/02			<5	<0.5	<0.5	<0.5	<0,5					┝╼═╼┼		+
01	NA	NA .	NA	5.8E+03	NC NC	NC	NC	NA	NA	NA	NA	NV	NV	NV
									NA	NA	NA	NV	Νν	NV
3 3 3 3	7/01 5/02 3/95 7/01 5/02 1/95 9/01 5/02	7/01 5/02 7/01 7/01 5/02 1/95 9/01 9/01 5/02 1/901 1/9	7701 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02 5/02	7/01	7/01 <0.5 5/02 <5 <0.5 7/01 <0.5 7/01 <0.5 7/01 <0.5 7/02 <0.5 7/02 <0.5 7/02 <0.5 7/02 <0.5 7/02 <0.5 7/02 <0.5 7/02 <0.5 7/02 <0.5	7701 <0.5 <0.5 5/02 <5 5/02 <5 5/02 <50 <0.5 <0.5 7/01 <0.5 <0.5 5/02 <50 <0.5 <0.5 5/02 <2.5 <2.5 5/02 <2.5 <2.5 5/02 <50 <- <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <0.5 <0.5 5/02 <50 <- <0.5 <0.5 5/02 <0.5 <0.5 5/02 <0.5 <0.5 5/02 <0.5 <0.5 5/02 <0.5 <0.5 5/02 <0.5 <0.5 5/02 <0.5 5/03 5/04 <0.5 5/05 5/	7701 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	7701	7701 <0.5 <0.5 <0.5 <0.5 702 <5	7701 <0,5 <0,5 <0,5 <0,5	7701 <0.5	7701 <0.5 <0.5 <0.5 <0.5	7701 <0.5	7701

Notes

All results are reported in micrograms per liter (ug/L)

<0.5 or ND = not detected at or above the indicated laboratory reporting limit

Bold indicates detection above laboratory reporting limit

~ = Not Analyzed

NS = Not Sampled

FB-GW = Field Blank of Distilled Water

RMW-1GWDUP = Duplicate Groundwater sample from well RMW-1

TPHg = Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015

TPPH = Total Purgeable Petrolcum Hydrocarbons

TEPHd - Total Petroleum Hydrocarbons as Diesel by EPA Method 8015

TEPH = Total Extractable Petroleum Hydrocarbons

NA = not applicable

NC = noncarcinogen

NV = not volatile

RBSL = Residential Scenario Risk-Based Screening Level for Fine-Grained Soil (RWQCB 2001)

sol = Solubility threshold (the calculated RBSL exceeds the solubility threshold of the chemical)

T&R data collected on 18 an 19 December 2001

Source Final Site Investigation Report for the 64th and 65th Street Properties, Emeryville, California, EKI, 5 September 1995.

b = diesel range compounds are significant; no recognizable pattern

g = oil range compounds are significant

h = lighter than water immiscible sheen/product is present

Table 2b Groundwater Monitoring Well Analytical Results By Others and Treadwell Rollo VOC and PAH 1465 65th Street

Emeryville, Cailfornia

	T			PAHs						
Sample ID	Sample Date	1,1-DCA	1,2-DCA	1,1-DCE	cis-t,2- DCE	trans-1,2- DCE	TCE	Vinyl chloride	Bis(2-ethylhesyl) Phthalate	All Other
RMW-1	3/24/95	<12	1.4	<1.2	16	10	53	<2.5	ND	ND
	12/19/01	<0.5	1.3	1,5	12	8.5	31	<0.5		
RMW-1GWDUP	12/19/01	/01 <0.5 2.0		1.3	18	13	48	<0.5		
·	4/25/02	<1	1.2	ব	8.8	6.3	23	<1		
RMW-2	3/24/95	<0.5	0.96	<0.5	12	8.4	26	<1	ND	ND
AM72 F1 - 2	12/18/01	<0.5	1.5	<0.5	9.8	4.4	27	<0.5		
	4/25/02	<1	1.2	ব	5.9	2.8	21	<1		
RMW-3	3/27/95	11	<0,5	1.4	25	22	36	3.7	ND	ND
1447.17-5	12/18/01	1,3	<0.5	<0.5	20	28	12	2.4	340	ND
	4/25/02	<1	<1	<1	16	18	42	2.2		
MW-2	3/23/95	<1.2	<1.2	<1.2	60	46	2,5	<2.5	ND	ND
MW-2	12/17/01	<0.5	<0.5	<0.5	12	0.99	<0.5	<0.5		
	4/25/02	<0.5	<0,5	<0.5	5.6	<0.5	<0.5	<0.5		
MW-3	3/23/95	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	ND	ND
0/1/4-3	12/17/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
	4/25/02	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
	2.02.12.2		<1.2	<1.2	28	16	54	<2.5	ND	ND
MW-4	3/23/95	<1.2		<2.5	29	12	57	<2.5	170	**
	12/19/01 4/25/02	<2.5 <1	<2.5 <i< td=""><td>\\\\ \ <1</td><td>23</td><td>14</td><td>42</td><td>3</td><td></td><td>-</td></i<>	\\\\ \ <1	23	14	42	3		-
	472,7102									
MW-4D	4/25/02	<u> </u>	<1	<1	24	14	44	<1		
FB-GW	12/19/01	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
TRIP BLANK	4/25/02	<1	<1	<1	<1	<1	<1 <i< td=""><td></td><td></td></i<>			
Indoor Air Cancer-Based RBSL	2001	2 24E+04	4,70E+04	NC*	NC	NC	1.28E+04	1.17E+02	NV	NV
Indoor Air Noncancer-Based RBSL	2001	1.54E+06	NA	NA	1.29E+05	1 50E+05	ŃΑ	NA	NV	NV

Notes

All results are reported in micrograms per liter (ug/L)

<0.5 and ND = Not detected at or above the indicated laboratory reporting limit

Hold indicates detection above laboratory reporting limit

RMW-IGWDUP = Duplicate Groundwater Sample from RMW-1

MW-4D = Duplicate Groundwater Sample from MW-4

VOCs = Volatile Organic Compounds

DCA = Dichloroethane

DCE = Dichloroethene

TCE = Trichloroethene

PAH = Polycyclic Aromatic Hydrocarbons

PAHs determined by EPA method 8270 by Treadwell & Rollo for 2001 sampling event

NA = not applicable

NC = nonearchogen

NV = not volatile

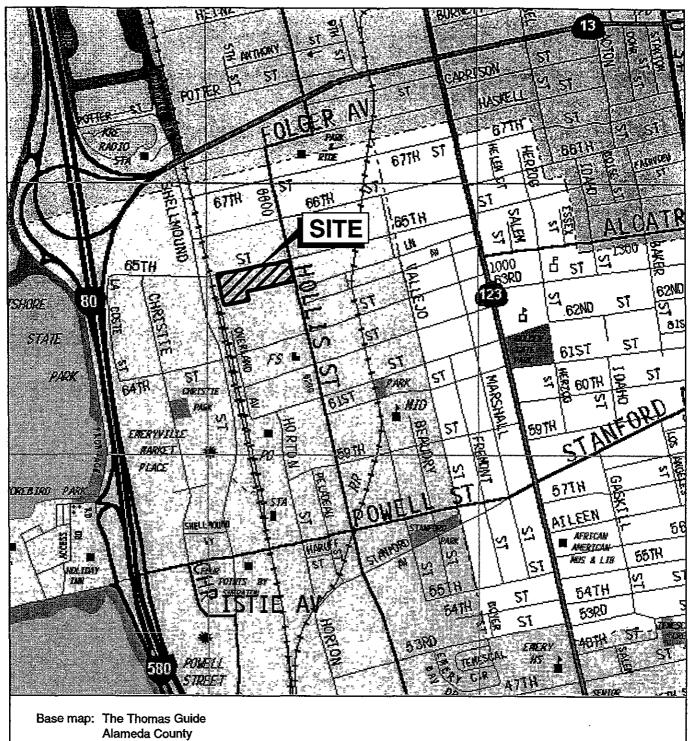
RBSL = Residential Scenario Risk-Based Screening Level for Fine-Grained Soil (RWQCB 2001)

• 1,1-DCE is classified by the U.S.E.P.A. as a Class C carcinogen. According to S. DiZio of the California Department of Toxic Substances (DTSC), the State of Cai fornia, Department of Health Services Office of Drinking Water regulates 1,1-DCE as a non-carcinogen for setting the Maximum Contaminant Level (MCL)

Therefore, 1,1,-DCE was evaluated as a non-carcinogen.

Treadwell & Rollo data was collected on 18 and 19 December 2001

Source: Final Site Investigation Report for the 64th and 65th Street Properties, Emeryville, California, EKI, 5 September 1995



2002



No scale

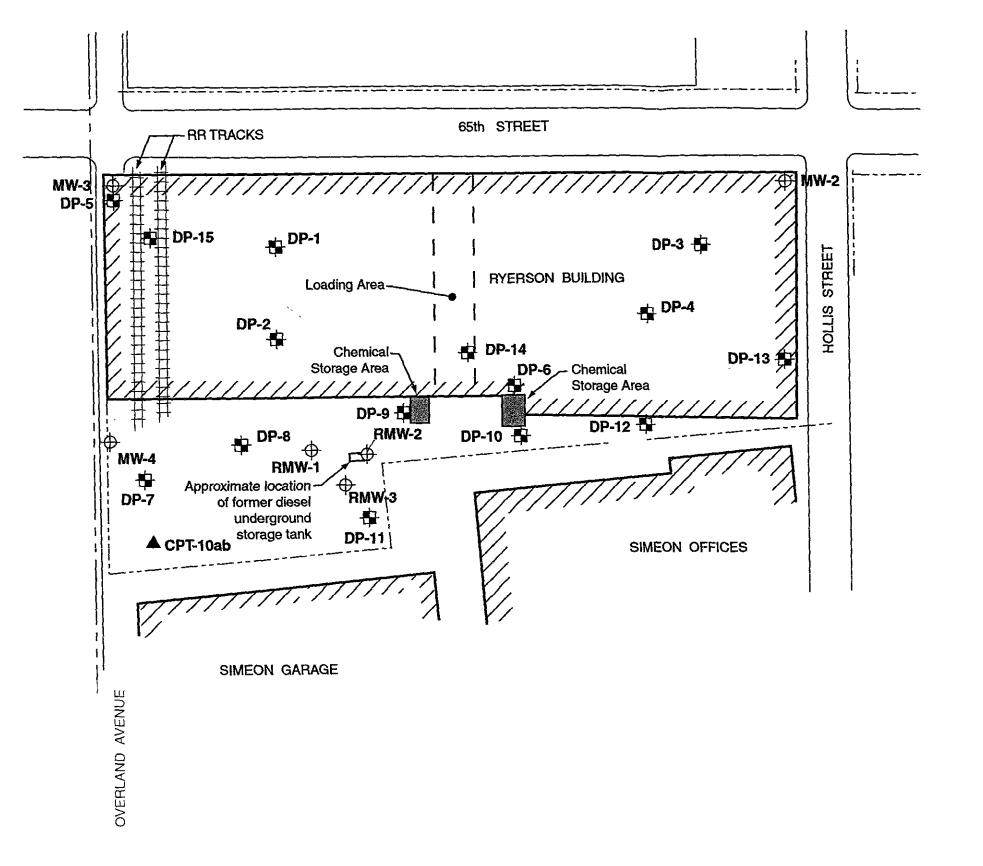
1465 65TH STREET Emeryville, California

Treadwell&Rollo

SITE LOCATION MAP

Date 12/18/01 | Project No. 3212.02

Figure 1



EXPLANATION

Existing Structures

CPT-10ab A Environmental CPT location, December 13, 2001

DP-1 Environmental Direct Push Boring location, December 13 & 14, 2001

MW-2 Groundwater monitoring well installed by others

0 100 Feet
Approximate scale

1465 65th STREET Emeryville, California

TREADWELL & ROLLO SAMPLING LOCATION PLAN

Date 05/06/02 Project No. 3212.02 Figure 2

Treadwell&Rollo

Reference: First level Plan, 65th & Hollis, Emeryville, Ca, Thompson/Opus West, B.A.R. Architects, dated 5 September 2001.

McCampbell Analytical Inc.

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

Treadwell & Rollo	Client Project ID: #3212.02	Date Sampled: 04/25/02
555 Montgomery St., Suite 1300		Date Received: 04/26/02
San Francisco, CA 94111	Client Contact: Jeff Ludlow	Date Extracted: 04/29/02-05/01/02
San Francisco, CA 94111	Client P.O.:	Date Analyzed: 04/29/02-05/01/02

traction m	ethod: SW5030B	_	(C6-C12) Volat	_	nethods: SW8021				Vork Orde	r: 0 2044
2b lD	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
02B	MW-2	w	<u> </u>	ND			_		1	102
005B	RMW-2	w	***	ND	ND	ND	ND	ND	1	#
06В	RMW-1	w .		ND	ND	ND	ND	ND	1	#
007В	RMW-3	w		ND	ND	ND	ND	ND	1	 #
08A	Trip Blank	w		ND	ND	ND	, ND	ND	1	110
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!		!			A 6		0.5	0.5	<u>.</u>	
	g Limit for DF =1 as not detected at a		50	0.05	0.5	0.5	0.5	0.5		g/L e/Ke

above the reporting limit S 1 0.05 0.005 0.005 0.005 0.005 mg/Kg

*water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipe samples in ug/wipe, and TCLP extracts in ug/L.

DF = dilution factor.

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), f) one to a few isolated non-target peaks present; g) strongly aged gasoline of diesel range compounds are significant; h) highter than water immiscible sheen/product is present, i) liquid sample that contains greater than ~2 vol. % sediment; j) no recognizable pattern

	McCampbell .	Analyti	cal Inc.	Telepho	enue South, #D7, Pacheon, CA ne . 925-798-1620 Fax : 925- consphell.com E-mail: main@	798-1622	,					
Treadwe	ll & Rollo		Client Project ID: #3212.02		Date Sampled: 04/2	25/02						
555 Mor	ntgomery St., Su	ite 1300			Date Received: 04/2	26/02	-					
Con Tono	: CA 0/11	1	Client Contact: Jeff Ludlow		Date Extracted: 04/26/02							
San Frai	ncisco, CA 9411	1	Client P.O.:		Date Analyzed: 04/27/02-05/01/02							
Extraction m	Diesel ethod: SW3510C	(C10-23)	and Oil (C18+) Range Extractable Hye Analytical methods: SW801	as Diesel and Motor O		er: 0204445						
Lab ID	Client ID	Matrix	TPH(d)		TPH(mo)	DF	% SS					
905C	RMW-2	w	ОИ		ND	1	91.9					
006C	RMW-1	w	190,g		1200	ı	101					
007C	RMW-3	w	9700,b,g,h		5000	ı.	101					
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	 .					<u> </u>						
	g Limit for DF =1;	w	50		250	ug/L						
ND means not detected at or above the reporting limit			NA		NA	mg/Kg						

^{*} water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/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 holling 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, i) bunker oil, m) fuel oil, n) stoddard solvent

McCampbell Analytical Inc.

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

Treadwell & Rollo	Client Project ID: #3212.02	Date Sampled: 04/25/02
555 Montgomery St., Suite 1300		Date Received: 04/26/02
San Francisco, CA 94111	Client Contact: Jeff Ludlow	Date Extracted: 04/29/02-05/01/02
San Plancisco, CA 94111	Client P.O.:	Date Analyzed: 04/29/02-05/01/02

Halogenated Volatile Organics by GC-ELCD (8010 Basic Target List) Extraction Method: SW5030B Analytical Method: SW8021B Work Order: 0204445													
Extraction Method: SW5030B		Апа	llytical Method: SW802		·	Work Orde	r. 0204445						
	Lab ID	0204445-001A	0204445-002A	0204445-003A	0204445-004A								
	Client ID	MW-3	MW-2	MW-4	MW-4D	Reporting DF							
	Matrix	W	W	w	w	DF	-1						
****	DF	1	1	2	2	S	w						
Compound			Conc	entration		ug/kg	με/1.						
Bromodichkoromethanc		ND	ND	ND<1	ND<1	NA	0.5						
Bromoform		ND	ND	ND<1	ND<1	NA.	0.5						
Bromomethane		ND	ND	ND<1	ND <i< td=""><td>NA NA</td><td>0.5</td></i<>	NA NA	0.5						
Carbon Tetrachloride		ND	ND	ND <i< td=""><td>ND<i< td=""><td>NA</td><td>0.5</td></i<></td></i<>	ND <i< td=""><td>NA</td><td>0.5</td></i<>	NA	0.5						
Chlorobenzene		ND	ND	ND<1	ND<1	NA.	0.5						
Chloroethane		ND	ND	ND<1	ND<1	NA	0.5						
2-Chloroethyl vinyl ether		ND	ND	ND<1	ND <i< td=""><td>NA NA</td><td>0.5</td></i<>	NA NA	0.5						
Chloroform		ND	ND	ND<1	ND<1	NA	0.5						
Chloromethane	,	ND	ND	ND<1	ND<1	NA	0.5						
Dibromochloromethane		ND	ND	ND <i< td=""><td>ND<1</td><td>NA NA</td><td>0.5</td></i<>	ND<1	NA NA	0.5						
1,2-Dichlorobenzene		ND	ND	ND <i< td=""><td>ND<i< td=""><td>NA</td><td>0.5</td></i<></td></i<>	ND <i< td=""><td>NA</td><td>0.5</td></i<>	NA	0.5						
1,3-Dichlorobenzene		ND	ND	ND<1	ND<1	NA.	0.5						
1,4-Dichlorobenzene		ND	ND	ND<1	ND<1	NA .	0.5						
Dichlorodifluoromethane		ND ND		ND<1	ND<1	NA	0.5						
1,1-Dichloroethane		ND	ND	ND<1	ND<1	NA NA	0.5						
1,2-Dichloroethanc		ND	ND	ND <i< td=""><td>ND<1</td><td>NA</td><td>0.5</td></i<>	ND<1	NA	0.5						
1.1-Dichloroethene		ND	ND	ND<1	ND<1	NA NA	0.5						
cis-1.2-Dichloroethene		ND	5.6	23	24	NA	0.5						
trans-1.2-Dichloroethene		ND	ND	14	14	NA	0.5						
1,2-Dichloropropane		ND	ND	ND <i< td=""><td>ND<1</td><td>NA NA</td><td>0.5</td></i<>	ND<1	NA NA	0.5						
cis-1,3-Dichloropropene		ND	ND	ND<1	ND<1	NA.	0.5						
trans-1,3-Dichloropropene		ND	ND	ND×1	ND<1	NA NA	0.5						
Methylene chloride		ND<1.0	ND<1.0	ND<2.0	ND<2.0	NA .	0.5						
1,1,2,2-Tetrachloroethane		ND	ND	ND<1	ND<1	NA NA	0.5						
Tetrachloroethene		ND<1.0	ND<1.0	ND<2.0	ND<2.0	NA NA	0.5						
1.1.1-Trichloroethane		ND	ND -	ND <i< td=""><td>ND<1</td><td>NA</td><td>0.5</td></i<>	ND<1	NA	0.5						
1,1,2-Trichloroethane		ND	ND		ND<1	NA NA	0.5						
Trichloroethene		ND ND	ND -	42	44	NA NA	0.5						
Trichlorofluoromethane		ND	ND	ND<1	ND<1	NA NA	0.5						
Vinyl Chloride		ND	ND	ND<1	ND<1	NA NA	0.5						
			gate Recoveries		110/1	IYA	0.5						
%SS		98.2	107	101	106								
7655 Comments		70.2	107	ivi	100								

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit for DF = 1, water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg, wipes, ND<0.2ug/wipe

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

(h) a lighter than water immissible sheen/product is present, (i) liquid sample that contains greater than ~2 vol. % sediment, (j) sample diluted due to high organic content

Edward Hamilton, Lab Director

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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Treadwell & Rollo	Client Project ID: #3212.02	Date Sampled: 04/25/02
555 Montgomery St., Suite 1300		Date Received: 04/26/02
a n :	Client Contact: Jeff Ludlow	Date Extracted: 04/29/02-05/01/02
San Francisco, CA 94111	Client P.O.:	Date Analyzed: 04/29/02-05/01/02

Halogenated Volatile Organics by GC-ELCD (8010 Basic Target List)

Work Order: 0204445 Extraction Method: SW5030B Analytical Method: SW8021B 0204445-007A 0204445-008A 0204445-006A Lab ID 0204445-005A Reporting Limit for RMW-3 Trip Blank Client ID RMW-2 RMW-I DF≃l W W W Matrix w 2 2 5 DF 2 1 μg/L ug/kg Concentration Compound ND<1 ND NA 0.5 ND<1 Bromodichloromethane ND<! ND<1 ND NA ND<1 0.5 Bromoform ND<I ND NA ND< ND<1 ND<1 0.5 Bromomethane ND<1 ND<I ND< ND NA 0.5 Carbon Tetrachloride ND<1 ND<1 ND<1 ND NA 0.5 Chlorobenzene ND<I ND NA 0.5 ND<I ND<I Chloroethane ND< ND NA 0.5 2-Chloroethyl vinyl ether ND<1 ND<1 ND< ND<1 ND<1 ND NΑ 0.5 Chloroform ND<I ND<I ND<1 ND NA 0.5 Chloromethane ND 0.5 Dibromochloromethane ND< ND<1 ND<1 NA ND<1 ND NA 0.5 ND< ND<I 1,2-Dichlorobenzene ND ND<1 NΑ 0.5 ND<I ND<1 1,3-Dichlorobenzene ND 0.5 ND< ND<1 ND<1 NA 1,4-Dichlorobenzene ND<I ND<I ND NA 0.5 Dichlorodifluoromethane ND< ND 0.5 ND<1 ND<1 NA ND<1 1,1-Dichloroethane ND<1 ND NA 0.5 1.2 1,2-Dichloroethanc 1.2 ND ND<1.0 NA 0.5 ND<1 1.1-Dichloroethene ND<1 ND NA 0.5 5.9 8.8 16 cis-1,2-Dichloroethene ND 0.5 18 NA 2.8 6.3 trans-1,2-Dichloroethene NU< ND NA 0.5 ND<I ND<I 1,2-Dichloropropane ND< ND NA 0.5 ND<I ND<I cis-1,3-Dichloropropene ND NA 0.5 ND<1 ND<I trans-1,3-Dichloropropene ND<I ND<2.0 ND<1.0 NΑ 0.5 ND<2.0 ND<2.0 Methylene chloride NA 0.5 ND<I ND<I ND 1,1,2,2-Tetrachloroethane ND<1 ND<2.0 ND<1.0 NA 0.5 ND<2.0 ND<2.0 Tetrachloroethene ND< ND<1 ND NA 0.5 ND<I 1,1,1-Trichloroethane ND<1 ND NA 0.5 ND<1 ND< 1,1,2-Trichloroethane 42 ND NA 0.5 21 Trichloroethene ND<1 ND<1 ND<1 ND NA 0.5 Trichlorofluoromethane

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg wipe samples in ug/wipe

Reporting limit for DF = 1, water/TCLP/SPLP extracts, ND<0.5ug/L, soils and sludges, ND<5ug/kg, wipes, ND<0.2ug/wipe

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

ND<

103

(h) a lighter than water immiscible sheen/product is present, (i) liquid sample that contains greater than ~2 vol. % sediment, (j) sample diluted due to high organic content

ND<

Surrogate Recoveries (%)

Dedward Hamilton, Lab Director

2.2

101

ND

96.3

0.5

Vinyi Chloride

%SS Comments

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0204445

Treadwell&Rollo

CHAIN OF CUSTODY RECORD

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Field Sample	Date	∏me	Lab Sample No.	Soil	Water	돧	H ₂ SO,	် နှ		1,2	Ş	ŝ	100 C	80i5							City of Appenia	1 4		Remar		
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MW-2	4/25/02				X	14			X.		X	X				\perp	L	L			4	1				
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MW-4D	4/25/02	1519			X	3			X		X							L			\perp					
RMW-2	4 25/02	1616			X	4		_}	4	1	Z	_	X	X		1	_	L			_	1	<u> </u>	<u></u>		
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McCampbell Analytical Inc.

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

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

WorkOrder: 0204445

Client

Treadwell & Rollo

555 Montgomery St , Suite 1300 San Francisco, CA 94111

TEL: FAX: (415) 955-9040 (415) 955-9041

ProjectNo:

#3212.02

PO:

26-Apr-02

							**					•
Sample ID	ClientSampID	Matrix	Collection Date	Bottle	SW8015C	SW8021B	8021B/801	Requested 5	10515			
0204445-001	MW-3	Water	4/25/02 12:40:00 PM		,	Α .						
0204445-002	MW-2	Water	4/25/02 1:55:00 PM		,_,	A	<u> </u>				 -	. -
0204445-003	MW-4	Water	4/25/02 3:19:00 PM		_, 	A						
0204445-004	MW-4D	Water	3/25/02 3:19:00 PM	- 4		A	·			1-11-1-1		w
0204445-005	RMW-2	Water	4/25/02 4:16:00 PM		C	A	· B		"[
0204445-006	RMW-1	Water	4/25/02 5:10:00 PM		C	. А	В	- •				
0204445-007	ŘMW-3	Water	4/25/02 5:55:00 PM	. ,	<u>C</u>	A	B					
0204445-008	Trip Blank	Water	4/25/02	-		А	А					• •

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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.